KaWin Help Contents

Welcome to KaWin

KaWin and KaWin Help are Copyright © 1995, 1996, 1997, by Stan Huntting.

KaWin is not free! Use of KaWin requires registration with the author. For warranty information, see KaWin technical support.

Choose one of the following help chapters, or click on Search above, to learn more.
Getting Started
Screen
Menus
Packet Operating
Non-Packet Operating
Keyboard Shortcuts
Configuring KaWin
Registering KaWin
Frequently Asked Questions
KaWin Glossary

This help file is a collection of hyper-linked topics and may be navigated by clicking on interesting links or by using the **Search** command above. Also, **this entire help file may be browsed** in a more or less logical sequence with the help of the "**>**" and "**<**" keys. At the end of each logical browse sequence look for the "**Continue browsing this help file**" link, at the bottom of the page, to begin the next sequence. In this way, every topic can be visited in order.

With your assistance, this help file continues to evolve. Please send your suggestions, questions and comments by email or fax and check the KaWin home page for updates.

Getting Started

Thank you for evaluating KaWin.

The following help topics provide a brief introduction to KaWin and should get you up and running on VHF packet. If you have a KAM, you should then move on to the chapter on the non-packet modes with your KaWin and KAM ready to operate.

KaWin features
System requirements
Installing KaWin
Configuring your TNC
Your first packet contact
Registering KaWin

KaWin Features

All TNC communication modes.
VHF and HF packet radio.
CW, Rtty, Ascii and Navtex.
Amtor, Pactor, G-Tor, Tor-standby and G-Tor Monitor.

Host mode interace.
Host mode means KaWin and your TNCs communicate computer to computer.
Host mode means full use of your dual-port TNCs.
Simultaneous multiple TNCs, multiple ports, multiple streams and multiple radios.

Native MS Windows program.
KaWin is a no compromise design for MS Windows in 486 and Pentium systems.
Only a native Windows program can offer fully event-driven communications.
Looks like, feels like and exchanges data with your other Windows applications.
Separate send and receive windows for each QSO, radio and TNC.
Intuitive menus, full mouse support and on-line help make KaWin is easy to learn.
Windows accelerator keys and shortcuts keys for operating speed.
Easy and clean to install and remove - leaves no residue.

Flexibility
Hundreds of configurable options for complete customization.
Quick keys, Quick connects, Brag files, CQ robot, Restartable binary file transfers, Ansi graphics and much more.

KaWin is the best choice for all current Kantronics TNCs.

KaWin is fully functional for "try before you buy" testing.

System Requirements

KaWin's goal is to enhance your on-the-air performance by doing many small tasks, much more quickly than you can. How well KaWin performs these tasks is influenced by the speed and capacity of your computer system.

TNC.

One to four Kantronics TNCs. KAMs must have version 7.0 firmware or later. All other Kantronics TNCs must have version 5.0 firmware or later.

Minimum Computer System.

A Windows capable computer system with a 386DX-25 cpu, 8MB memory, hard disk drive, VGA display, one available serial port and MS Windows 3.11, Windows for Workgroups 3.11 or Windows 3.10 with the "Windows 3.11 Refresh Files", running in "386 enhanced mode".

Recommended Computer System.

 A computer system that runs Windows well, a 486DX-33 or better CPU, 16MB memory, accelerated super-VGA display, and as many serial ports (with 16550 UARTs and unique IRQs) as you have TNCs and **Windows95 or Windows for Workgroups 3.11**.

KaWin is routinely tested on both a 16MB 486DX2-66 with Diamond Stealth-32PCI display, 16550 UARTs and Windows95, and on an 8MB 386DX-25 with standard VGA, 8250 UARTs and WFWG 3.11. Performance is blazingly fast on the 486DX2-66 system, but, while data integrity is never compromised, performance on the 386 system is slow. The beta test team uses a variety of systems, all of which meet or exceed the minimum requirements and all of which provide good results.

Operator Requirements.

The KaWin user interface and the KaWin documentation, including this help file,   assume a level of technical competence in digital, audio and RF technology that is consistent with attainment of the US Technician Class amateur radio license. In addition, this KaWin help file, and the author's willingness to provide user support, assume a working knowledge of MS Windows. **KaWin is not intended to be an introductory course in Windows**.

Installing KaWin

KaWin is delivered, either electronically or on diskette, as a single self-extracting compressed file, KAWINxxx.EXE, where xxx is the KaWin version number. This file, when executed in Windows, will decompress all files to a single directory (default is c:\kawin) of your choosing, which we'll call the KaWin home directory. Name it anything you like and locate it on any drive that is read/write accessible to your Windows system. The KaWin home directory need not be in your search path.

Installation of KaWin places NO files in any directory other than the KaWin home directory and modifies NO system files. If your AUTOEXEC.BAT, CONFIG.SYS, SYSTEM.INI and WIN.INI files currently provide good Windows performance, they should be fine for KaWin. All of KaWin's executable and run-time files, configuration files and this help file may reside in the KaWin home directory. As you further configure KaWin, you may wish to create separate directories for some of the other files KaWin will use.

In addition to the files included in the distribution zip file, the file VBRUN300.DLL must be present in your /WINDOWS/SYSTEM directory. If your KaWin distribution file was received on diskette, VBRUN300.DLL may be included as the file VBRUN3.EXE, which will install **VBRUN300.DLL in c:/WINDOWS/SYSTEM**. If VBRUN300.DLL is already installed on your system, you will be so informed and no harm will be done.

If you do not have VBRUN300.DLL, look for it where you found KaWin, the KaWin home page, or the Microsoft Download Service, or almost any bbs (usually as VBRUN300.ZIP or the self-extracting file, VBRUN300.EXE). Including VBRUN in the KaWin downloaded distribution file would unnecessarily burden the download for the vast majority of users who already have this file.

KaWin will communicate with TNCs on any comm port that your Windows installation supports. Windows 3.11 users should use **Control Panel/Ports** to set the characteristics of the port(s) you will be using, including IRQ. Windows95 users will find these settings in **Control Panel/System/DeviceManager/Ports.** Use the highest **Baud Rate** that your TNC is capable of (9600 for most Kantronics TNCs) and select **Hardware Flow Control**. The serial communications drivers that are a part of Windows for Workgroups 3.11 and Windows95 are superb and KaWin never misses a bit with these drivers. Windows 3.10 users may be able to upgrade their systems to 3.11 by downloading the latest drivers from Microsoft.

KaWin is now installed. If you use the Windows 3.11 Program Manager as your shell and would like to have a KaWin icon to click to start up KaWin, add it to any program group you like with the following steps:
* Open the selected program group by double-clicking on its icon.
*   Select File/New   then click Program Item and OK.
* Type "KaWin" as the Description (without the "quotes").
* Tab to Command Line and click on Browse.
* Find the KaWin home directory that you created above and double-click on KAWIN.EXE.
* Click on OK (no Working Directory is necessary).

Windows95 users may want to create a shortcut to KaWin in their Start menu by dragging KaWin.exe, with the right mouse button, to an appropriate directory under Windows/StartMenu/Programs and then clicking on "Create Shortcut Here".

Now, you may start KaWin by any of the following methods:
 * Click on the KaWin icon in Program Manager,
* Double-click the KAWIN.EXE file in File Manager,
* Click File/Run and enter "c:\kawin\kawin.exe<Enter>" (without the "quotes") in either Program Manager or File Manager, or

* Launch KaWin from your favorite program launcher.
* Windows95: Click the "Start" button and navigate through "Programs" to click on the KaWin icon.

Configuring Your TNC

KaWin applies a light touch to controlling your TNC, and wherever possible, avoids taking command of a TNCs operating parameters from you. KaWin controls only those parameters that are absolutely required (e.g. INTERFACE HOST). Even those few parameters may be automatically restored by selecting the appropriate option in the Option/Configure/Tncs&Radios dialog. Only five TNC parameters might be left changed on exit:

MONITOR	is <u>always</u> left OFF to reduce the probability that your TNC's buffers overflow.
INTFACE	is left at HOST (preferred) or TERMINAL according to your selection in Option/TNCs&Radios.
PMODE	(Kam only) is set to the HF mode at time of exit.
CWTONE	(Kam only) is set to the value set in HF Preferences/CW.
CWSPEED	(Kam only) is set to the value set in HF Preferences/CW.

KaWin provides dialogs that streamline control of a few other parameters that need frequent changes (e.g. HF Mode dialog), but leaves the setting of most TNC parameters up to you. Every parameter change issued to a TNC, whether set by you or KaWin, is recorded in the "cmds" context for that TNC. You can see exactly what KaWin is doing, and enter your own commands there also. This also means that KaWin does not prevent your setting of new parameters as Kantronics adds new features to the firmware of your TNC. KaWin is obsolescence resistant!

With your TNCs connected to the corresponding serial ports of your computer, and the Windows comm <u>ports configured</u> to match, start KaWin. Select Option/<u>TNC</u> and select the first available TNC. Set the **TNC Type** from the three alternatives offered ("Single port" includes the Kpc-3 and "Other dual port" includes the Kpc-9612 and Kpc-4), the **Win Com Port** and the **Com Port BPS**. Change other settings only as necessary to fit your configuration - the defaults were chosen with considerable care. Then, click on **Open TNC**.

The Configure dialog will close and the **cmds** context for this TNC will appear. If the Windows port settings and your serial port hardware agree and your computer to TNC cabling is correct, you should see some action right away. If your TNC was not in Host mode before, KaWin will complain about the first host mode open attempt "failing" as it finds the TNC/computer port data rate. If KaWin gives up on this, try cycling the power ON/OFF on your TNC and then repeat the attempt to open the TNC. Once communication between KaWin and the TNC has been established, the TNC/computer port data rate can be <u>changed</u> at any time.

Any TNC parameters that need changing can be handled now, by clicking on the **cmds** context selection tab labeled with the name you just assigned to this TNC (should already be the selected context if you're following this in sequence). You will not see the "cmd:" prompt, nor do you need to type a <ctrl-c> to get the TNC's attention. **This context is always in command mode and always ready to take your commands**, enter them just as they are documented in your Kantronics Reference Manual.

TNC parameter recommendations:

MYCALL	This MUST be set to your call sign! An optional SSID may be appended.
MYPBBS	This MUST be set to your call sign! An optional SSID (-1 or -3 are customary) should be appended. There are more identification parameters (all starting with MYxxx) in the TNC user manual.
AUTOCR 0	KaWin handles word wrap - don't fight it.
MAXUSERS	Something reasonable, but probably less than the maximum of 26, or even the default of 10. KaWin handles high values of this parameter better than most programs, but it still chews up TNC memory if you don't expect to

connect to 26 stations simultaneously. MAXUSERS command causes the TNC to perform an immediate reset, and will not be accepted if there are any outstanding connects.

USERS   Set to the same value as MAXUSERS.

CD SOFTWARE   This is not required by KaWin, but packet operation with Kantronics TNCs is so much easier with this setting.

PERSIST, SLOTTIME and RESPTIME are the three most abused parameters in packet radio. Be reasonable, and cooperate with other packet users in your area to develop a workable consensus value for these three.

HEADERLN OFF   Saves space in the receive windows for monitor contexts.

MSTAMP ON   This is what you saved the space for.

PBBS 10   Allocates 10 kBytes for PBBS messages and leaves most of the TNC memory to buffer connected packets when the computer is turned off.

CODE AMTOR APLINK   Is for KAMs only, not required, but useful.

CODE RTTY LCRTTY   Is for KAMs only, and again, not required.

Except for the MAXUSERS parameter, all of these settings are included in the sample TNC command file, KAWIN.TNC, included in the KaWin distribution files. The MAXUSERS command causes the TNC to perform an immediate reset, and, if included in a TNC command file, all further commands will be lost during the reset. A PERM command is included in the KAWIN.TNC file. This command is not recognized and not needed by KAMs, but it does no harm either.

Many parameters that are critical to terminal mode programs, such as PACLEN and those that control TNC/computer handshaking are not applicable to Host mode - so don't worry about them. If you started from factory defaults with a TNC other than a KAM, this is a good time to **PERM**. That will save the settings you just made as well as saving the TNC/computer port data rate for quicker startup next time.

Changing The TNC/Computer Port Data Rate

To change the TNC/computer port data rate, switch to   the KaWin **cmds** context for that TNC. With the cursor in the send window at the bottom of the screen, enter

ABAUD 9600<Enter> (or whatever speed you're changing to)

PERM<Enter> (not needed for KAMs)

RESET<Enter>

Then, open the <u>Option/TNC</u> dialog and **Close** the TNC.

Finally, set the data rate to the new rate (9600, or whatever speed you're changing to),   and click on **Open** to re-open the TNC at the new data rate. After some fussing and fuming in the cmds context you should see normal communications established at the new data rate.

Note: the RESET command will disconnect any outstanding connects.

Your First Packet Contact

To connect to a known call sign, use the Connect/Connect command (shortcut is <F7>) from the KaWin main menu. Enter the call sign, click on the correct radio, and click OK to start the connect. **Do not type "c" or "connect"** - that's a terminal mode command and not necessary in host mode. Once connected your packets will be transmitted each time you press the <Enter> key, or when an end of line is reached.

To watch the traffic on the frequency, click on the **mon** context for the radio you are using. When you see a call that you want to try to connect to, click on the call sign and select Connect from the pop-up menu that appears. That will open the Connect dialog with this call and radio already selected.

KaWin Title Bar

The KaWin title bar is determined by Windows and has a slightly different layout in Windows 3.11 and Windows95.

Windows 3.11.

There are four active elements in the title bar. Double clicking the control box at the left of the bar has the same effect as the File/Exit KaWin menu selection. At the right of the title bar are are the minimize and maximize buttons. Double clicking anywhere in between these elements toggles the KaWin window state between full-screen and windowed modes.

Windows95.

The same elements exist in slightly different form, joined by a fifth, the close button that also has the same effect as the File/Exit KaWin menu selection.

In all versions of Windows, the background and text colors of the KaWin title bar are set in the Windows Control Panel. In Windows 3.11 the applet is called Color, and in Windows95 it is called Display. In either case, set the colors for the "Active Title Bar", "Active Title Bar Text", "Inactive Title Bar" and "Inactive Title Bar Text" screen elements.

The title bar is also your handle for **moving and re-sizing the KaWin window** on your desktop. With the mouse pointer in the title bar, press and hold the left mouse button while you drag the KaWin window to the desired location, then release the button. Similarly, the extreme lower-right corner of the KaWin window is the size handle. Move the cursor into position there and it will turn into a double-arrow, pointing diagonally, upper-left and lower right. From that position, press and hold the left mouse button while you drag this corner to resize the KaWin window. Using these two handles you can size and position the KaWin to best fit your working desktop. Then, use Option/General/SaveCurrent to save this position and KaWin will always appear in the same position, each time you start the program.

KaWin Menu Bar

Invoke the KaWin main menu commands by any of the standard windows conventions:

Click the left mouse button on the menu item.

Hold down the Alt key and press the underlined "Accelerator" key.

Press <Alt> once and then navigate with the arrow keys before pressing Enter.

File
Edit
Connect
HF Mode
Quick
Option
Window
Help

The background and text colors of the KaWin menu bar are set by the Windows Control Panel, by setting the colors for the "Menu Bar" and "Menu Text" screen elements. See KaWin Title Bar for details.

KaWin Status Bar

The KaWin status bar your reference to what's happening in KaWin. The various elements of the status bar are displayed only as needed. The possibilities are:

If you have one or more Kams in your system, each has an on-the-air box for the hf port. The text reflects the "HF radio name" for that TNC as set in Option/TNCs & Radios. The background color changes from light cyan when receiving to bright red when transmitting. In ARQ modes the bright red indicates that your station is the ISS and light cyan indicates that you're the IRS.   When transmitting and the "receive at end of buffer" command has been sent the on-the-air box is half cyan and half bright red. If no KAM TNC is open the on-the-air box is not present. Clicking the on-the-air box selects the HF context as the current context and pops up the HF Mode Switch menu. **Caution: double-clicking the on-the-air box toggles transmit/receive.**

While commands that transfer data to or from files are active for the current context, the file operation progress box will be visible in the status bar. While the file operation progress box is visible, the File/Status/Cancel command (shortcut is the <Esc> key, or click on the file operation progress box) will display the detailed status of the transfer and offer an opportunity to proceed (OK or <Enter>) or cancel the file transfer (Cancel or <Esc>).

If a watch window is open the watch window box appears next, identifying the context that is been watched. Double-clicking the watch window box will close the watch window.

If a Kpc-3 Plus TNC is open and analog monitoring is enabled, an analog monitor box will appear with the latest sampled values of the selected analog lines. If more than one Kpc-3 Plus TNC is open and enabled for monitoring, left-clicking on this box will rotate through all of them.

At the right end of the status bar the current time and date are displayed. clicking this box toggles the display between UTC and Local time. UTC is displayed by default and is derived from your system clock, adjusted by the values set in Option/General for "UTC - local time" and "UTC - system clock".

If computer-to-TNC errors occur they will be announced by an Error message on the status bar. If these errors become frequent, the error code in the announcement may be useful to KaWin technical support in solving the problem.

Packet Operating

AX.25 packet radio is a shared channel form of communication, with multiple stations and connects sharing the same radio spectrum. KaWin with Kantronics TNCs make it easy for you to control one or more connects by providing a separate and unique context for each station with whom you are connected and fast switching between those connects.

In addition, KaWin offers the opportunity to view the activity of other stations on the channel. In KaWin terminology, each of these views is called a **context**, **and is displayed in its own set of receive and send windows, identified and selected by the context selection tabs.**

Context selection tabs also identify the type of context:

Connected contexts are identified by the call sign of the connected station in **upper case** characters. To connect to another station, see First Packet Contact, and for more details see Connect. Break a connect by disconnecting. If you are connected to an automated station such as a BBS, **use the appropriate command**, usually b, or bye, and allow the BBS to initiate the disconnect.

Disconnected contexts are identified by the call sign in **lower case** characters on a **light grey background** for the context selection tab. A subsequent connect to the same station will reclaim this context and append the new qso to the old. Disconnected contexts may be permanently discarded at any time using the Connect/PurgeContext command.

Your outgoing text to each connected station is entered by typing directly into the send window for that context. To do this, the focus must be in the send window. Since the send window is the default focus, it will probably already be there, and if not, it will "fall" there by pressing <esc>. Incoming text from each connected station is displayed in the receive window for that context.

For compatibility with other stations, the maximum packet length sent by KaWin is limited to 256 characters. Most packet users let the length of each line of text determine the packet size, sending a packet when each end of line is reached. This is the default (in packet mode) for KaWin but, it is determined independently for each connected context by the state of the S/L/N Send Mode Selector at the lower right corner of the KaWin screen.

Multiple lines may be sent in a single packet by using **<shift-enter>** to enter an embedded carriage-return-linefeed sequence without triggering a send event. Similar provisions are made for sending nearly all of the the 256 possible ASCII characters through special key combinations.

Non Packet Operating

Non-packet operating requires one or more KAM TNCs.

In contrast to AX.25 packet radio, the HF non-packet communication modes are non-shared-channel communication modes. Because of this the non-packet modes rarely suffer from "hidden transmitter" collisions, a major drawback to HF packet.

KaWin with Kantronics TNCs make it easy for you to control your non-packet communication just like your packet connects, by providing a separate and unique context for the HF port of your KAM, and fast switching between that context and your packet connects. In KaWin terminology, each of these views is a context, and is displayed in its own set of receive and send windows, identified and is selected by the context selection tabs.

Non-packet modes include traditional non-connected modes, such as CW, RTTY, and ASCII, as well as the connected TOR modes of G-tor ARQ, Pactor ARQ, and AMTOR ARQ and their non-connected counterparts, FEC and Pactor FEC. Context selection tabs identify the nature of their context. Connected contexts, and non-connected contexts for which you have provided a call sign, are identified by the call sign of the connected station in **upper case** characters.

You connect to another non-packet station using the same Connect command that you use for a packet connect, selecting an HF radio in the connect dialog and indicating the desired mode. Break an ARQ connect by dropping the link, or by aborting the link. If you are connected to an automated station such as an Aplink MBO, **use the appropriate command**, usually b, or bye, to allow the MBO to initiate the disconnect.

Disconnected contexts are identified by the call sign in **lower case** characters on a **light grey background** for the context selection tab. A subsequent connect to the same station, in either a packet or non-packet mode, will reclaim this context and append the new qso to the old. Disconnected contexts may be permanently discarded at any time using the Connect/PurgeContext command.

Your outgoing text to each connected station is entered by typing directly into the send window for that context. To do this, the focus must be in the send window. Since the send window is the default focus, it will probably already be there, and if not, it will "fall" there by pressing <esc>. Incoming text from each connected station is displayed in the receive window for that context. KaWin forces the XMITECHO ON command to your KAM, allowing the KAM to echo your outgoing text to the receive window. Since this echo occurs only after the KAM has successfully transmitted each character, this serves the roll of a progress indicator perfectly.

Most non-packet users prefer to send text one word at a time, sending a packet when each space is reached. This is the default (in non-packet modes) for KaWin but, it is determined independently for each context by the state of the S/L/N Send Mode Selector at the lower right corner of the KaWin screen. Provisions are made for sending nearly all of the the 256 possible ASCII characters through special key combinations.

KaWin Technical Support

Warranty

KaWin is supplied "AS IS" without warranty of any kind, either expressed or implied, including, but not limited to, the implied warranties of merchantability and fitness for any particular purpose. The entire risk related to the quality and performance of KaWin is on you. Before registering KaWin you should first determine its suitability to your application. In the event there is any defect, you assume the entire cost of necessary servicing, repair, or correction and all consequences of damage. The registration fee is not refundable. If you cannot accept these conditions, do not use KaWin.

Support

Having said all that, I would like very much for you to be a happy user and enthusiastic advocate of KaWin. In addition to doing my best to fix program or documentation bugs that you bring to my attention, I want to continue to enhance KaWin in ways that you suggest, and to help you make the best use of the features and function of KaWin. I do want to be responsive to your requests, but to keep the cost of KaWin under control, I need your cooperation.

Your quickest support will come from the topics in this help file and the included compilations of Frequently Asked Questions (FAQ). The FAQ is also published in updated form on the KaWin Home Page.

Please submit all requests for technical support to my email address. I will respond as soon as I can. KaWin users without email access may submit reports by fax. I appreciate the fax reports but please do not expect a response. **Requests from unregistered users are welcome**, but priority must be given to registered users. The **rec.radio.amateur.digital.misc** newsgroup includes experienced KaWin users who are often eager to offer useful tips and insights. KaWin is a commercial product, and so, while I would very much like to meet you in QSO someday, please DO NOT ask for support on the air or via amateur packet radio, as this is a clear violation of both the spirit of amateur radio, and the conditions of my US amateur radio operator's license.

Updates

The latest updates to the KaWin distribution files are always available on the WWW at the KaWin home page.

Suggestions for enhancements to KaWin are welcome and may be submitted by email, but they   can only be accepted with the clear and mutual understanding that such suggestions do not obligate the author of KaWin in any way, and are freely offered by you without expectation of compensation of any kind.

Thank you for your use and support of KaWin.

Stan Huntting, KFØIA.

KaWin Registration Application
** to print this application. Refer to Registration for instructions.**

Primary Call Sign:

Name:

EMail Address: _____
Email addresses are case sensitive! Clearly indicate upper/lower case.

Postal Address:

_____

US$_____   **US$79 - KaWin Registration.** The Registration ID for the
Primary Call Sign above will be sent to your **email** address
(or, mailing address if email is not available).

US$_____   **US$15 - 1st Alternate Call Sign.** Applications for alternate
call signs must be accompanied by copies of the primary and
alternate call signs indicating 1) a single station location, or
2) the alternate call sign is a club station.

US$_____   **US$15 - 2nd Alternate Call Sign.** Applications for alternate
call signs must be accompanied by copies of the primary and
alternate call signs indicating 1) a single station location, or
2) the alternate call sign is a club station.

US$_____   **Total Order Amount**

Charge to VISA/MasterCard #:

Card Expires: (VISA/MasterCard may be faxed to 303 444
2314)

___ Check or money order attached.

Please sign below and forward with your check or US money order to:

KaWin Registration
4655 Pleasant Ridge Rd.

Boulder, CO 80301

I accept the terms and conditions of the KaWin Warranty.

Signature:

KaWin Lite Registration Application

Primary Call Sign:

Name:

EMail Address:
Email addresses are case sensitive! Clearly indicate upper/lower case.

Postal Address:

US$_____   **US$39 - KaWin Lite Registration - for owners of a single Kpc-3 ONLY.** The Registration ID for the Primary Call Sign above will be sent to your **email** address (or, mailing address if email is not available).

US$_____   **US$15 - 1st Alternate Call Sign.** Applications for alternate call signs must be accompanied by copies of the primary and alternate call signs indicating 1) a single station location, or 2) the alternate call sign is a club station.

US$_____   **US$15 - 2nd Alternate Call Sign.** Applications for alternate call signs must be accompanied by copies of the primary and alternate call signs indicating 1) a single station location, or 2) the alternate call sign is a club station.

US$_____   **Total Order Amount**

Charge to VISA/MasterCard #:

Card Expires: (VISA/MasterCard may be faxed to 303 444 2314)

___ Check or money order attached.

Please sign below and forward with your check or US money order to:

> KaWin Registration
> 4655 Pleasant Ridge Rd.
>
> Boulder, CO 80301

I accept the terms and conditions of the KaWin Warranty.

Signature:

KaWin Upgrade Registration Application

Primary Call Sign:

Name:

EMail Address: _____
Email addresses are case sensitive! Clearly indicate upper/lower case.

Postal Address:

_____

US$_____   **US$49 - KaWin Upgrade Registration - for registered KaWin Lite users ONLY.** The Registration ID for the Primary Call Sign above will be sent to your **email** address (or, mailing address if email is not available).

US$_____   **US$15 - 1st Alternate Call Sign.** Applications for alternate call signs must be accompanied by copies of the primary and alternate call signs indicating 1) a single station location, or 2) the alternate call sign is a club station.

US$_____   **US$15 - 2nd Alternate Call Sign.** Applications for alternate call signs must be accompanied by copies of the primary and alternate call signs indicating 1) a single station location, or 2) the alternate call sign is a club station.

US$_____   **Total Order Amount**

Charge to VISA/MasterCard #:

Card Expires: (VISA/MasterCard may be faxed to 303 444 2314) _____

___ Check or money order attached.

Please sign below and forward with your check or US money order to:

> KaWin Registration
> 4655 Pleasant Ridge Rd.
>
> Boulder, CO 80301

I accept the terms and conditions of the KaWin Warranty.

Signature:

Context Selection Tabs

Context selection tabs display an inventory of the available contexts and select the current context. Each context is identified on its context selection tab. If it is a connected context, the call sign of the connected station, in upper case characters, is displayed on the context selection tab. Disconnected contexts are identified by call signs in lower case characters.

Change context by clicking on a tab, by pressing the access key (the underlined number, 0-9, on the first ten tabs) while holding down the Alt key, or by pressing any of the arrow keys while holding down the Alt key.

Tab Color

The current context is the context that is visible in the receive and send windows. The tab for the current context is identified by its dark blue background and is further identified by the current context enunciator of the status bar. Background colors of the tabs are used to identify context type:

    packet - off-white,
    non-packet - cyan,
    disconnected - light gray,
    all others - medium gray.

A connected context that is not the current context signals the arrival of new text by changing its tab to a bright color. When the cursor is in the receive window of the current context, automatic scrolling of the window is frozen. To alert the operator to the arrival of new text in this case the background color of the tab changes to bright magenta.

Receive Window

The receive window shares the largest part of the KaWin display with the send window, and optionally, the watch window. The receive window displays all printable text received from its context. A separate receive window is created for each context. The receive window also displays an echo of sent text surrounded by these «chevrons» as delimiters for easy identification.

In order to preserve the historical integrity of the receive window, its contents may not be modified. However, it is possible to move the cursor into the receive window for the purpose of selecting text to be copied to the clipboard.

The cursor, and the focus, may be moved into the receive window by:
*   clicking in the receive window with the mouse,
*   pressing the <Tab> key, or
*   pressing <PgUp>.

Navigation within the receive window using the usual navigation keys is unusual only when the bottom of the text is approached, when a down arrow or <PgDn> will cause the focus to leave the receive window. When the cursor is in the receive window the text and background color are changed to the "Window Without Focus" scheme, set in Option/Fonts & Colors.

When the cursor is in the receive window, receive window updating and automatic scrolling is temporarily suspended until the cursor is once again out of the receive window. If new received text arrives while updating is suspended, the event is signaled by a color change of the context selection tab.

To enable receive window updating, move the cursor out of the receive window by pressing the <Tab> or <Esc> keys, or by selecting another context.

Watch Window

A watch window provides a view of activity in a context other than the current one. A watch window is not visible until needed. In the case of a watch window this is in response to the [Window/Watch Current Context](#) or [Window/Heard On This Radio](#) commands.

Use a watch window to monitor background channel activity going on behind your packet connection, or to watch for new rare DX spots on a DX Cluster while you chat with your current QSO on RTTY.

Send Mode Selector

These four buttons are present whenever a <u>send window</u> is present and each send window retains its own unique settings for these buttons. They determine the event that triggers sending text from the send window. The four choices are:

Keystroke K). Each keystroke is sent as it is pressed. The send window text is word-wrapped to fit the width of the send window. A carriage return is sent whenever the <Enter> key is pressed, and additional carriage returns are inserted to replace a space such that the maximum length of a sent line is 70 characters. This mode has advantages for CW operators in DX or contest environments where spaces between words are often omitted. The disadvantages are that there is no backspace available to correct a misspelled word before it is sent, and the overhead is much higher. available only in CW, RTTY, and ASCII modes.

Space (S). The send window text is sent each time the spacebar is pressed. The send window text is word-wrapped to fit the width of the send window, but a carriage return (x0D) is not necessarily sent at the same time. A carriage return is sent whenever the <Enter> key is pressed, and additional carriage returns are inserted to replace a space such that the maximum length of a sent line is 70 characters. This is the default for all non-packet HF modes.

Line (L). The send window text is sent each time a carriage return is inserted. The send window text is word-wrapped to fit the width of the send window, but a carriage return (x0D) is not necessarily sent at the same time. A carriage return is sent whenever the <Enter> key is pressed, and additional carriage returns are inserted to replace a space such that the maximum length of a sent line reaches the "Word Wrap" limit (default 70) set in the <u>Option/General</u> dialog. This is the default for packet mode.

None (N). The send window text is sent only when the <Enter> key pressed. A carriage return is appended to the sent text.

In any send mode, the length of sent text is further limited by the maximum packet length parameter.

Send Window

A send window is present for each context that can accept sent text. This includes connected contexts, non-connected HF contexts, and TNC command contexts, but not monitor or statistics contexts.

The send window is where you type or paste text to be sent to the current context. The send window shares the lowest part of the KaWin window with the send mode selector.

Text typed into the send window is automatically word-wrapped. Text is actually transmitted to the current context according to the setting of the send mode selector.

Text typed into the send window may include in-line macros, which will be expanded automatically as they are typed. To enter a macro, type the backslash character, "\", followed by the single letter identifier of the desired macro. To send one or more backslash characters, type two backslashes for each.

Sent text is echoed to the receive window, surrounded by these «chevrons» as delimiters for easy identification.

File Menu

This menu supports these functions:

Status/Cancel, Send Brag File, Send Text File, Send ANSI Picture and Send TNC Cmd File
   ... sends various files.

Send File (Binary), Get Directory and Get File (Binary)
   ... Binary file transfers.

Save Selection, and Print Selection
   ... saves text from the screen to a file.

Record Context, Auto Record All QSOs, Log QSOs, Capture TNC
   ... recording and logging of activity.

Exit KaWin
   ... ends your KaWin session.

File/Status/Cancel

This command may be invoked by any of three methods:
    Pressing the <Esc> key,
    Clicking the File/Status/Cancel menu command, or
    Clicking on the file operation progress box.

During the transfer of a file, sending or receiving, the file operation progress box   appears in the KaWin Status Bar. While the file operation progress box   is visible, this command will display the detailed status of the transfer and offer an opportunity to proceed (OK or <Enter>) or cancel the file transfer (Cancel or <Esc>).

File/Send Brag File

Sends the printable text from any file by inserting the file contents into the send window of the current context at the cursor location. By default, the file open dialog shows file with the *.BRG filename extension. The the default directory is specified in the Option/Directories dialog. This command is valid whenever the current context is a connect to another station or the non-packet context of a KAM TNC.

Brag files are short texts that are sent frequently. The most common brag file is one that describes your station equipment. Other brag files might include something about your QTH, your family, or your job. Keep them brief, and don't get too cute with the formatting and graphics - long-winded brag files at HF digital speeds are a real pain. Brag files may contain macro codes that will expand to add timeliness and a personal touch to your canned brag text.

KaWin will begin inserting your brag file into the send window of the current context at the cursor location, and will provide all the necessary word-wrap and end-of-line handling, ignoring all imbedded carriage returns in your file. If you need to force a hard carriage return, e.g. at the end of each item in a list of equipment, include the macro "\r"to tell KaWin that you want a real carriage return to be sent at this location, or, "\r\r" to insert two carriage returns, leaving a space between paragraphs.

The following text in a brag file...

For example, this is a brag file
to tell \n about your station,
and is built in short, easily updated lines, like these, that identify your
transceiver,
amplifier,
antenna,
computer,
(and don't forget to tell everyone how much you like KaWin!)
and will be reassembled by KaWin
into a single paragraph.\r\r

... looks like this when processed by KaWin:

> For example, this is a brag file to tell Martti about your station, and is built in short, easily updated lines, like these, that identify your transceiver, amplifier, antenna, computer, (and don't forget to tell everyone how much you like KaWin!) and will be reassembled by KaWin into a single paragraph.

File/Send Text File

Sends the printable text from any file by inserting the file contents into the send window of the current context. This command understands text files with lines terminated by <carriage-return/line-feed> (DOS/ Windows and many other systems) or <line-feed/carriage-return> (UNIX and many internet files). The current send mode is over-ridden and NO word-wrap is in effect.

This command is valid whenever the current context is a connect to another station or the non-packet context of a KAM TNC. During the Send Text process the keyboard is blocked from adding text to the context the Send Text is sending to.

Text from the file is "paced" to the TNC such that the TNC's buffer capacity is not exceeded and incoming data may be promptly processed. If the size of the file is large enough the progress will be indicated in the Status Bar.

The default directory is specified in the Option/Directories dialog. By default, the file open dialog shows files with the *.TXT filename extension.

File/Send ANSI Picture

Sends the entire content of any file by inserting the file contents into the send window of the current context. The current send mode is over-ridden and NO word-wrap is in effect.

This command is valid whenever the current context is a connect to another station or the non-packet context of a KAM TNC. During the Send Ansi process the keyboard is blocked from adding text to the context the Send Ansi is sending to.

Data from the file is "paced" to the TNC such that the TNC's buffer capacity is not exceeded and incoming data may be promptly processed. If the size of the file is large enough the progress will be indicated in the Status Bar.

The default directory is specified in the Option/Directories dialog. By default, the file open dialog shows files with the *.ANS filename extension.

File/Send TNC Cmd File

Sends the printable text from any file by inserting the file contents into the send window of the current context.

This command is valid only when a TNC command context is currently selected. During the Send TNC Cmd process the keyboard is blocked from adding text to the context the Send TNC Cmd is sending to.

The purpose of TNC files is to provide a quick and easy way of setting or resetting a list of TNC parameters with a single command. An option in the Option/TNC dialog will automatically send specified TNC files to a TNC each time that TNC is opened or closed.

Data from the file is "paced" to the TNC such that the TNC is allowed time to respond to each command in turn. If the size of the file is large enough the progress will be indicated in the Status Bar.

The default directory is specified in the Option/Directories dialog. By default, the file open dialog shows files with the *.TNC filename extension.

File/Send File, Get Directory, Get File (Binary)

These three commands initiate file transfers over VHF packet, HF G-tor and HF Pactor ARQ connections using an appropriate File Transfer Protocol. They are most useful for binary files - files that contain data that is not limited to the printable ASCII character set - that you wish to have transferred intact. Word processor files, executable program files and compressed files (ZIP files, etc.) are good candidates for these commands.

These commands require that both connected stations be running programs that are compatible with the protocol. On packet connections the protocols available are the "Yapp" and "Gold" protocols and the protocol to be used is selected in the course of the command dialog. On HF G-tor and HF Pactor ARQ connections the protocol used is the KaWin HF protocol.

Send File will send a file to another compatible station, Get Directory (not available in "Yapp" protocol) will retrieve the directory of files available to be retrieved, and Get File will retrieve a file. Multiple files may be selected to be sent with a single Send File command (not available in "Gold" protocol) and multiple files may be retrieved with a single Get File command by using the "*" and "?" wildcard characters (not available in "Gold" protocol).The response of your KaWin station to a remote request for the transfer, in or out, of a file or directory listing is determined by settings in the Option/Directories dialog, and may be enabled or disabled conditionally or unconditionally.

If a file transfer is not completed in the first attempt, a subsequent attempt to transfer the same file into the same receiving directory will automatically restart where the previous attempt stopped. In this way, very large files can be transferred in a series of sessions. All three supported protocols support htis feature.

During the transfer of a file, sending or receiving, the file operation progress box appears in the KaWin Status Bar. While the file operation progress box is visible, the File/Status/Cancel command will display the detailed status of the transfer and offer an opportunity to proceed (OK or <Enter>) or cancel the file transfer (Cancel or <Esc>).

KaWin may ask your permission to temporarily increase the maximum packet length from that set in the configuration options.

File/Save Selection

Saves <u>selected text</u> from either the <u>receive</u> or <u>send</u> window of the current <u>context</u> to a file. The default filename extension is .TXT and the the default directory is specified in the <u>Option/Directories</u> dialog.

Save Selection As

Opens a new file or replaces the selected file with a new file containing the selected text.

Save Selection, Append To

Adds the selected text to an existing file by appending it at the end of the file.

File/Print Selection

Prints the selected text to the current Windows default   printer. If more formatting flexibility is required, use this alternative:

<Ctrl-c> ... to copy the selected text to the Windows clipboard,

<Ctrl-e> ... to invoke your favorite editor,

<Ctrl-v> ... will paste the contents of the clipboard into most editors (some, like WinWord, may require that you use the Edit/PasteSpecial menu command). Then use the familiar facilities of your favorite editor to fancy it up any way you like.

File/Record Context, Auto Record All QSOs

Record Context records everything that appears in the <u>Receive Window</u> for the current <u>context</u> to a disk file.

This command is a toggle. The same command is used to start recording and to stop recording. A check mark appears in the menu next to the command when recording is active for the current context.

Recording is "sticky" from session to session. Once recording is started for a context associated with given callsign recording will be resumed whenever a context with this same callsign appears in this and future KaWin sessions until recording is stopped with this same command.

Auto Record All QSOs enables automatic recording of all connected contexts. This command is also "sticky" from session to session.

The default directory for recorded contexts is specified in the <u>Option/Directories</u> dialog.

File/Log QSOs

When checked, a record is written to the file, KAWINLOG.TXT, for each QSO. A QSO is defined as a packet connect, an ARQ link in G-tor, Pactor or Amtor modes, or any time a call sign is set for the current context using the HF Mode/Set Call Sign command. Once checked, this command remains enabled from session to session until it is explicitly disabled by clicking the command again.

The file is written as a comma-delimited Ascii text file for compatibility with other applications, such as loggers, word processors and spreadsheets. Each field of a record is enclosed in double-quotes (") and separated from adjacent fields by a comma (,).The number of fields is constant and empty fields are represented by a null field (,"",). Each record is terminated by a CR/LF and represents a single QSO. A record is actually written at the time of the disconnect, when the maximum QSO information is available, thus the date/time stamps in the file, which represent the time of the connect, will not be in strict ascending order. The fields are:

Field	Description
Timestamp	MS Windows Date/Time of connect, days and fractions of a day since midnight, 30 December 1899, UTC.
Text time and date	UTC time and date of connect, in the form: hhhh "UTC" dd.mmm.yy. this is the same date and time as the Timestamp field, above.
Duration of QSO	in days:hours:minutes:seconds.
Call sign	of QSO station.
Radio used	Radio name from Options/TNCs and Radios.
QSO mode	Packet, G-tor arq, Amtor fec, Rtty 45, CW, etc.
QSO number	if the QSO number macro was used during the QSO.
Op's name	from Quick/Other Op's Name or call sign database.
Op's QTH	from Quick/Other Op's QTH or call sign database.
QSO Note	anything entered with Quick/Log QSO Note. Uses include, QSL route, or ...
Sticky Note	for this radio, from Quick/Log Sticky Note. Once a value is set for this variable, this information will be included in each log record for QSOs made on this radio. May be used to indicate band, or ...
Files transfered	space-delimited list of filenames sent and received with any of the binary file transfer protocols and text files sent with the File/Send Text File command. A two-character code is prefixed to the filename indicating whether the file was sent (S) or received (R) and the protocol used: KaWin HF (H), Yapp (Y), Gold (G) or Text (T).

File/Capture TNC

This is a diagnostic tool. It may offer some insight into the mysterious world of host mode communication to the experimenter interested in TNC trivia. It captures the raw host mode data stream coming from a TNC and writes that data to a file. KaWin prefixes each host data block by a header in the format:

    hhmmss n:cpt

where

    hhmmss is the current **system time** in hour, minutes and seconds,

    n is the **TNC number**, 1-4, assigned by KaWin,

    c is the command or **status** byte of the host mode header,

    p is the **port ID** of the host mode header, and

    t is the **stream ID** of the host mode header.

The filename is constructed on the fly, and consists of fragments of the date/time stamp with the filename extension of .TMP.   The file is saved under in the directory specified for Recording in the Option/Directories dialog.

File/Exit

This ends your KaWin session. But first, the status of all open TNCs is displayed. Pay particular attention to any outstanding connects. Outstanding connects are not automatically disconnected at exit unless you have specified that the TNC is NOT to be closed in host mode.

Leaving your TNC connected to another station should only be done with the express consent of the other station. While no program is talking to your TNC, received data from the other station will be accumulating in memory. When the available memory in your TNC is exhausted, the normal acknowledgment returned by your TNC changes to an error return that some programs (notably DX Cluster) do not handle gracefully. Your sysop will not be pleased if this happens!

Edit

This menu supports these functions:

Copy to Clipboard

Selection
... places selected text on the Windows clipboard.

Call Sign
... places call sign of the current context on the Windows clipboard.

Other Op's Name
... places op's name from the current context on the Windows clipboard.

Other Op's QTH
... places op's QTH from the current context on the Windows clipboard.

Call Sign DB Info
... places summary info from the call sign DB for the current context on the Windows clipboard.

Call Sign DB Address
... places a formatted address label from the call sign DB for the current context on the Windows clipboard.

Paste
... inserts the contents of the Windows clipboard into the Send Window at the cursor location.

Select All
... selects all text in the Receive Window of the current context.

Find
... searches the receive windows for a given text string.

Editor
... invokes your favorite editor.

Lookup Call Sign

Lookup Call Sign in DB
... searches the call sign DB for a call sign.

Copy Info to Clipboard
... places summary info from the call sign DB for the last search on the Windows clipboard.

Copy Address to Clipboard
... places a formatted address label from the call sign DB for the last search on the Windows clipboard.

Edit/Editor

This invokes your favorite windows editor. By default it invokes Windows Notepad, but you may specify another program in the Option/General dialog.

Notepad is particularly suited to the task since it is quick, easy, and defaults to the same fixed-pitch font, `fixedsys`, as KaWin. Specifying a more versatile editor, such as Windows Write, or a full featured word-processor/publisher such as WinWord is an alternative with correspondingly greater editing/formatting power and complexity. If your favorite editor is a DOS program, remember that it cannot exchange text with the Windows clipboard, even when run in a DOS window. Stick to a Windows editor.

Continue browsing this help file.

Edit/Find

Find
... brings up the find dialog box.

Find What?
... type the text that you are searching for. **Case-insensitive**.

Find In?
... this is a list of available contexts to be searched. Only the receive windows of these contexts will be searched. Multiple contexts may be included in a search by holding down the <Ctrl> key and clicking on each context in turn.

Search Up/Search Down
... directs the search to proceed upwards from the cursor position (or the end of the text if the cursor is not in the receive window) or downward from the cursor position (or the beginning of the text if the cursor is not in the receive window).

OK/Cancel
... OK starts the specified search. The search will proceed through all selected contexts, stopping when the first occurrence of the **Find In** text string is found. Each context is wrapped, and overlapped to insure that new text, arriving during the search, is not missed. Cancel abandons the search.

Find Next
... after the search has stopped on a successful match, Find Next resumes the search in the same direction.

Find Previous
... after the search has stopped on a successful match, Find Next resumes the search in the opposite direction. The most obvious application of Find Previous is to back up to the last successful match.

Pop-up Menus

Clicking on any text in the receive window or the watch window displays a pop-up menu appropriate to the context. Select any of the offered commands or press <Esc> to cancel.

The possible commands that may appear include:

Read, Kill, Reply and Send Reply
... format the clicked text into commands that are common to many BBS systems sends that text to the connected station. If the clicked text is a valid message number, and if the connected station understands the command, you win!

Get File (Binary)
... is used to click on a file name in a File/Get Directory listing. It opens the File/Get File (Binary) dialog with the clicked file name already in place.

Set Call
... when a call sign is clicked, is a shortcut into the HF Mode/Set Call Sign dialog with the clicked call sign as the default. Two variations are offered to create a new context for this QSO, or continue in the same context.

Connect to
... is a shortcut into the Connect/Connect dialog with the clicked text set as the default call sign.

Set Name to, Set QTH to, and Set QSO Log Note to
... are alternatives to the Quick commands to set other op's Name, QTH and QSO Log Note.

Who Is?
... searches the call sign DB for the clicked call sign.

Copy
... places a copy of the highlighted text on the Windows Clipboard. Two alternative automatic text selections may be offered to further isolate call signs.

Find
... when anything is clicked, is a shortcut into the Edit/Find dialog.

Print
... when anything is clicked, is a shortcut into the File/Print Selection dialog.

Swap Watch
... appears when text in the watch window is clicked - shortcut to Window/Swap Watch.

Cancel
... or <Esc>, closes the pop-up menu.

The **automatic text selection** used in the pop-up menu is more selective than the standard Windows rules. This is to permit things like selecting either call sign out of a typical monitored text, like "KF0IA>N0MDK".

If you want the functionality of any of the pop-up menu commands to work on a different text selection, simply select the text in the standard Windows fashion, by **dragging the mouse** across the text while holding down the left mouse button. When you release the mouse button, the pop-up menu will again appear with the selected text as the command arguments.

Connect

This menu supports these functions:

Connect
    ... initiates a connect in packet or ARQ.

Status
    ... displays the state of all TNCs, ports, streams, and connections.

Disconnect
    ... disconnects a packet connection.

Purge Context
    ... deletes one, several or all disconnected contexts.

Connect/Connect

Initiates packet and HF ARQ connections to other stations.

Connect dialog

Using this dialog you specify the connect path, select a radio, and for an HF radio, select the mode for the connect.

Connect to:

Start here with one of these four approaches:

1) Use the down and up arrows, or the mouse, to select a Quick Connect from the list. If the defined radio (and if HF, the mode too) is still valid, just press enter and the connect is initiated.

2) Type just the call sign of the station you want to connect to directly into the "Connect to" box. Do NOT type "c" or "connect".

3) Type a more complex connect path directly into the "Connect to" box.

4) <Alt-e>, or click on the Edit button, to bring up the Quick Connect Organizer to define a new Quick Connect or edit an existing one.

Next, <Tab> moves the focus to the box titled:

Connect will use this radio and TNC:

Use the down and up arrows, or the mouse, to highlight the proper radio for this connection. If you select an HF radio, the **mode selection** box will be visible. If so, select the proper HF mode for the connect.

Then **OK** will initiate the connect.

Connect/Disconnect

Disconnects an existing packet connect. To disconnect an existing HF ARQ connect see HF Mode/Link Down or HF Mode/Abort Link.

Please note that while this is an quick and effective method to disconnect from any packet connect, it may not be the **appropriate** method. BBS stations prefer that you use their command - usually "bye", or "b" - to allow them to initiate the disconnect and do their necessary housekeeping.

Connect/Status

Summarizes the connect status of all open TNCs.

Connect/Purge

Presents a list of all disconnected contexts that may be purged, or removed, from the collection of context selection tabs. Selecting one or more of these and the OK button purges those tabs. Selecting **Purge All** purges all disconnected contexts.

HF Mode

This menu is only available when a KAM TNC is open.

Set Call Sign
... records the call sign of the other station.

Receive (or Change Over), Transmit and Link Down
... starts and stops non-packet mode transmissions, or initiates the change over in HF ARQ modes.

Mode Switch
... set the Kam to the selected HF mode.

ARQ BBS On
... enables/disables the Kam's internal BBS for access in HF ARQ modes.

HF Preferences
... pre-selects HF mode operating parameters for each mode.

Save HF Preferences Now
... saves all current options for all HF modes.

Save HF Preferences on Exit
... when checked, saves all options for all HF modes on exit from KaWin.

Clear Send Buffer and Abort Link
... more urgent ways to interrupt non-packet mode transmissions.

Call CQ
... starts the robot CQer.

Re-Synch Lamtor
... instructs the Kam to re-synchronize with the current Amtor signals.

Lock Xmit to Rcv Speed, CW Speed Set
... for CW operations.

HF Mode/Set Call Sign

Packet, Pactor and G-tor modes (also Amtor when a numeric or seven-character SELCAL is used) exchange call signs as part of their connect protocol. Other HF modes do not. If you use this command to tell KaWin the call sign of the other station, the call sign will be used to identify the context selection tab, and the call sign will be available for use by the "\s" macro.

The option is offered to create a new context for this QSO, or continue in the same context.

HF Mode/Transmit (or Change Over) & Receive

and, Link Down (Politely), Clear Send Buffer and Abort!

Transmit and receive serve two parallel functions for ARQ and non-ARQ, HF non-packet modes.

For the non-packet, non-ARQ modes (e.g. CW, RTTY, ASCII, FEC) the transmit command literally keys your transmitter. If you have been typing ahead while receiving (highly recommended), your buffered text begins being transmitted. Your transmitter remains in transmit mode until you issue the receive command. The receive command instructs the TNC to unkey your transmitter when all buffered text is sent.

In the ARQ modes of Amtor, Pactor and G-tor, your transmitter is being keyed intermittently, on a rythm characteristic to the mode, whether or not you are the sending station. In these cases, the transmit and receive commands determine whether you are the sending station (ISS) or receiving station (IRS). Normally, you will use only the receive command to change over the ISS status to the other station, and then wait until that station returns the ISS status to you. However, occasionally it will become apparent that the other station is expecting your reply, but has not turned over the link. In this case, or when the shack is on fire, it is appropriate to use the transmit command to "seize the link", or force the change over. At most other times, use of the transmit command in an ARQ QSO might be regarded as rude behavior.

To actually end an ARQ QSO, two commands are provided. The polite way to end the QSO is by using the **HF Mode/Link Down (Politely)** command when you are the ISS. This will wait a reasonable time, or until all buffered text is sent, and then send the Link Down Message, followed by an orderly disconnect of the link.

The **HF Mode/Abort!** command is valid for both ISS and IRS states and simply breaks the link - discarding all buffered text. This command is also useful for aborting an attempted ARQ connect before the connection is established. The ARQ CW ID feature is temporarily disabled to allow the fastest possible return to receive.

The **HF Mode/Clear Send Buffer** does just that - it discards all buffered text that has not yet been sent.

The shortcut keys assigned to these commands use the <F11> and <F12> keys. Alternate shortcut keys are available for four of these commands for keyboards lacking <F11> and <F12>:
  Transmit <Ctrl-F12> or <Ctrl-t>.
  Receive (or Change Over) <F12> or <Ctrl-r>.
  Clear Send Buffer command <Ctrl-F11> or <Ctrl-b>.
  Abort! <Shift-Ctrl-F11> or <Ctrl-a>.

HF Mode/Mode Switch & HF Preferences

Mode Switch

Selects and sets the mode for the HF port of the Kam. The new mode is displayed in the on-the-air box for the selected TNC. This menu may also be invoked by clicking on the on-the-air box.

All HF Preferences applicable to the selected mode are also set. If the Kam refuses to accept the selected preferences a warning message is displayed.

HF Preferences

This dialog provides the opportunity to customize HF operation by preselecting Kam parameters for each HF mode. These parameters will be set whenever the Kam's HF mode is switched.

Parameters which will be set with every mode switch include Arq ID on/off, Arq ID time interval, ARQ disconnect mode, FSK tones, default Quick Key set, respond to connect requests (In G-mon mode), default send mode, RTTY and ASCII speeds, CW speed and tone, and CQ options.

Save HF Preferences

Two commands provide either an immediate save of all HF preferences, or a save at the end of every KaWin session. Saving all HF preferences will add significantly to the time required to end a KaWin session.

HF Mode/ARQ BBS On

This command is a toggle. It turns ON or OFF the ARQ BBS request. A checkmark in the menu indicates that the ARQ BBS request is ON.

The Kam's ARQ BBS will actually be enabled whenever the Kam is switched to an applicable mode and the ARQ BBS request is ON. Leaving an applicable mode will disable the ARQ BBS, but will not turn OFF the ARQ BBS request.

Applicable modes include **Tor-standby, G-tor, Pactor and Amtor**.

HF Mode/Call CQ

The **KaWin CQ Robot** will call CQ for you in appropriate non-packet HF modes.

*   Use the <u>HFMode/Mode Switch</u> command (shortcut <F11>) to select the mode for your CQ call.

*   Select a file from the list of available <u>CQ files.</u>

*   The CQ options dialog will then appear, identifying the file to be used and the HF mode it will be calling using, and allowing you to set the following options:
  Interval between calls, from 1 seconds to 120 minutes.

*   Number of **times to call** CQ before quitting, from 1 to 99, or continuously until canceled.

*   If you are calling in **G-tor, Pactor or Amtor** modes, KaWin will automatically switch the TNC mode after each CQ call to Tor-standby. This feature can be defeated by un-checking the **Listen in Tor-standby** box.

*   Press <Enter>, or click **OK**, to begin calling CQ.

The CQ robot will automatically cancel when an incoming connect is detected.

While this "hf" context is selected, a yellow CQ progress box will appear in the <u>status bar,</u> showing the progress of the current call or the countdown to the next call. Pressing <Esc>, or clicking on the CQ progress box, will provide a dialog with more status information and the opportunity to cancel or continue. Two quick <Esc>s while this "hf" context is selected will cancel the CQ robot.

Your CQ message is the text of a CQ file that you create with the help of your <u>favorite text editor.</u> You may want to create several CQ files for various purposes - DX, CW, RTTY, or a FEC mode CQ that solicits connects in any of the ARQ modes. Name the file anything you like, but use .CQ as the file extension and create the file the <u>directory you have designated for CQ files.</u> In this file you may use <u>macros</u> and any printable characters that are appropriate for the supported character set of the selected HF mode - Amtor, RTTY and CW use increasingly limited character sets. Processing of the file follows the rules described for <u>Brag</u> files - end of line must be forced with the \r macro.

HF Mode/Lock CW Transmit Speed & CW Speed Set

HF Mode/Lock CW Transmit Speed locks the CW transmit speed to the current CW receive speed. The receive speed remains free to track with the received signal. The new CW transmit speed is shown in the HF on-the-air box.

CW Speed Set permits quick resetting of the CW transmit speed.

Quick

Sets the values, used in quick key macros.

Other Op's Name

The text you enter here is available to quick key messages as the value of the \n macro. The default value is "OM".

Other Op's QTH

The text you enter here is available to quick key messages as the value of the \q macro. The default value is "ur QTH".

Reset QSO
   ... resets the sequential QSO number.

Log QSO Note

The text you enter here will be included in the log record for the QSO of the current context. Uses include: QSL route, or ...

Log Sticky Note

The text you enter here will be set as the value of the sticky note for the radio used by the current context. There is a separate sticky note maintained for each radio and each is cleared at program startup. Once a value is set for this variable, this information will be included in each log record for QSOs made on this radio until the value is changed or cleared with this same command. May be used to indicate band in use, or ...

Local WX

The text you enter here is available to quick key messages as the value of the \w macro. You may set a default value for this text through the Option/General dialog.

Quick Message

The text you enter here is available to quick key messages as the value of the \m macro. You may set a default value for this text through the Option/General dialog.

Quick Keys
   ... selects a quick key set, displays a quick reference to quick keys, sends quick key text and edits quick key definitions.

Quick/Reset QSO

Sets or resets the next QSO number. The next QSO number is available to quick key messages as the value of the \# macro, and the current QSO number is available to quick key messages as the value of the \& macro.

The QSO number automatically increments each time a quick message using the \# macro is sent. If used repeatedly in a single message, the value will remain the same for all occurrences. The \& macro does not increment the QSO number at all, and is useful for quick key messages that send a repeat report.

The purpose of the QSO number is to support contest operating.

Quick/Quick Keys

Displays the list of available quick key sets, with the set selected for the current context indicated by a check mark. Change the selected set for the current context by clicking on another set or by setting a default quick key set for this call sign or this mode.

Edit Quick Key Definitions
    ... will take you directly to that dialog.

<Ctrl-k> is a special shortcut key that will pop-up the quick reference to the keys defined in the current quick key set. The quick reference to the keys defined in the current quick key set is shown here also.

See macro for a list of the available macro codes that can be included in Quick Key definitions.

Option

This menu offers these dialogs:

General
    ... defines miscellaneous operating parameters.

Directories
    ... defines the directories where your various KaWin files are found.

TNCs & Radios
    ... defines, opens and closes your TNCs.

Fonts & Colors
    ... defines the appearance of your Send and Receive Windows.

Quick Key Organizer
    ... defines short text elements that may inserted into your QSOs.

Quick Connect Organizer
    ... defines shortcuts to your most used connections.

Identifiers
    ... defines and synchronizes your TNCs' many ID parameters. Useful for multi-call stations.

My QTH
    ... defines the geographic position coordinates and locator grid for your station.

Analog Monitor
    ... defines which analog input lines will be monitored and logged.

Short Pop-up Menus
    ... toggles between the long and short versions of the pop-up menus. Using the short menu option will make those menu options that are not applicable invisible, but this option may provoke a bug in some installations of Windows 3.x. If the wrong dialog appears in response to a any main menu command, do not use this option.

Show [Local|UTC] Clock
    ... toggles between the default clock format and the alternate format. Same as clicking on the date/time clock in the status bar.

Statistics Context
    ... determines whether the Statistics context appears among the Context Selection Tabs - default is NOT checked. Whether this option is checked or not, the Statistics context will always appear whenever no other context is present. See the KaWin FAQ for more information on the Statistics context.

Register
    ... accepts your unique registration code to permit unlimited use of KaWin (and gets rid of the nag messages).

US FCC DB Enabled
    ... enables or disables support of the US FCC callsign database. A check mark next to the command indicates that the database is online. This database is maintained by, and available from the US FCC. It is updated very frequently with the latest US callsign assignments (including new vanity calls). The available information is limited to the name and address of the license holder.

This is a very large file (25MB in compressed form and 75MB as stored on your hard drive) and may take several hours to download, depending on the speed of your internet connection. It is available for download from the FCC Home Page at ftp://ftp.fcc.gov/pub/XFS_AlphaTest/amateur as the file APPL.ZIP.
Unzip the file to a convenient directory, click this Kawin command, and point KaWin to the file. KaWin will build a new index (less than a minute on most computers) the first time it finds a new version of the file.

This database may be enabled by itself, or in addition to any of the following CDROM databases as a secondary database. When enabled as a secondary database the effective date of each database's information will be compared and the newer data presented.

QRZ! Call Sign DB Enabled

... enables or disables support of the QRZ! Call Sign Database on CDROM. A check mark next to the command indicates that the database is online. KaWin access to this database is compatible with concurrent access from the QRZII.EXE program.

Buckmaster Call Sign DB Enabled

... enables or disables support of the Buckmaster Hamcall Call Sign Database on CDROM - versions dated October, 1995, or later. A check mark next to the command indicates that the database is online. KaWin access to this database is compatible with concurrent access from the ICALLW.EXE program.

Radio Amateur Callbook Call Sign DB Enabled

... enables or disables support of the Radio Amateur Callbook ("Flying Horse") Call Sign Database on CDROM. A check mark next to the command indicates that the database is online. KaWin access to this database is compatible with concurrent access from the CALLBKxx.EXE program.

Registering KaWin

KaWin is not free! Use of KaWin requires registration with the author and payment of the registration fee of US$79.

Kpc-3 owners may qualify for <u>KaWin Lite registration</u> with a fee of only US$39.

To register your copy of KaWin, submit   the <u>Registration application</u>.

To re-register a registered copy, submit the <u>Change of call sign application.</u>

For warranty information, see <u>KaWin technical support</u>.

Registered KaWin Lite users who are upgrading their stations should refer to <u>KaWin Upgrade</u> registration.

Term of trial period.

You may use an unregistered copy of KaWin for a period not to exceed 30 days from your first such use. Use that time to determine for yourself the suitability of KaWin to your needs. You may not use KaWin beyond this one-time 30 day period. KaWin is protected by US and international law. Violators of this limited use privilege will be prosecuted.

You may, and are encouraged to, copy and distribute intact, unmodified copies of the complete KaWin distribution file to others, and place it on any computer bbs or other distribution service as long as no charge is made for such distribution beyond the reasonable costs of media and/or connect time.

Registering and obtaining your registration ID code.

Print the <u>registration application</u>. Print or type the requested information clearly, especially your call sign and email address. If you are paying by check or money order, attach the check for the registration fees to the application and mail to the address on the application. **VISA and MasterCard** registrations may be submitted by <u>fax.</u> On-line registration is now available from the <u>KaWin Home Page.</u> Your registration ID code will be returned to you by email.

Alternate call signs are offered at a nominal charge for the convenience of families who share a single station and to support operation using a club call sign. Applications for alternate call signs must be accompanied by copies of the primary and alternate call signs indicate 1) a single station location for all call signs, or 2) the alternate call sign is for a club station. Each alternate call sign will receive its own unique registration ID code.

Additional registration codes for holders of **multiple licences** issued to the same individual, **MARS call signs**, and other emergency services alternate call signs, may request registration ID codes for those calls **at no charge** by submitting the <u>change of call sign application</u> along with documentation showing that the licensee of the alternate call sign and the licensee of the registered KaWin primary call sign are the same person.

Your registration ID code is an alphanumeric digest derived from your amateur radio station call sign and must agree with the call sign used on all TNCs used with your installation of KaWin. Since this code is unique to your call sign it is not necessary that you keep it secret. If you should change the MYCALL parameter of any open TNC, or open a new TNC with a MYCALL that does not agree with your registered call sign, you can expect the nag messages to re-appear.

Your registration ID code will register the current version of KaWin - that should be the version you have tested and based your acceptance on. Minor updates to KaWin will be made available periodically through the normal download sources, including the <u>KaWin Home Page.</u> These minor versions will accept the same registration ID codes as the major

version they are based on.

Registered KaWin users will be notified by email of major version changes. Major version changes will require re-registration. At the sole discretion of KaWin's author, recent registered users may be sent registration ID codes for the new version by email at no charge. Registered KaWin users may be offered discounted registration on new versions.

Entering your registration ID code into KaWin.

Registration of KaWin is validated by entering the 27-character registration ID code that uniquely matches your call sign in the Option/Register dialog. This code is NOT case sensitive and spaces separating code groups may be entered or omitted. Correct entry of your registration ID code is confirmed by a message. This code is stored in the KAWIN.INI file in your KaWin home directory. Should this file be deleted or corrupted you may need to re-enter your registration ID code. Otherwise, you will see no more nag messages.

If you have registered alternate registration ID codes, they are entered in very nearly the same way. Start by opening the Option/Register dialog and **again, enter your primary call**. **Do not enter your alternate call yet!** KaWin will recognize that your primary call sign is already registered and ask if you wish to register an alternate call sign. Click the Yes button and follow the dialog from there. A second alternate call sign may be entered in the same way. Additional alternate call signs may be entered only by replacing one of the two supported alternates.

Re-registering following a change of primary call sign.

Print the change of call sign application. Print or type the requested information clearly, especially your old and new call signs and email address. Document your call sign change by attaching copies of both your old and new licenses. No charge is made for a change of the primary call sign. If you wish to add or change alternate call signs at the same time, complete that part of the application and attach the required documentation (above) and your check or money order for the fees to the application and mail to the address on the application. A change of call sign for the holder of an alternate call sign is the same as applying for another alternate call sign and the alternate call sign fee is again applicable. Your new registration ID code(s) will be returned to you by email.

Thank you for registering KaWin.

KaWin Lite Registration

The Kpc-3 is a great little TNC for VHF packet with all the benefits of Kantronics Host Mode and more, but it offers neither simultaneous multi-port port operation, nor HF digital modes. Thus, Kpc-3 users only have access to the tip of the KaWin iceberg!

For these users, there is KaWin Lite registration!

KaWin Lite registration is a special opportunity for owners of the Kantronics Kpc-3 or other Kantronics single port TNCs. With KaWin Lite registration you enjoy all the features and benefits of the full KaWin program, with a very simple limitation:

> **KaWin Lite registration is ONLY valid when used with one, single-port, Kantronics TNC - such as a Kpc-3. KaWin Lite registration fee is US$39.**

KaWin Lite is NOT a separate program. KaWin Lite registered users use exactly the same KaWin program, but the KaWin Lite registration will turn off that ugly nag meter just like the full   registration as long as these simple conditions are met:

1) Only one TNC is defined in Option/TNCs & Radios,
2) That TNC is the first TNC in the list (TNC 1), and
3) That TNC is configured as type, "All single port".

If you comply with those three simple rules you can enjoy the benefits of KaWin registration at a bargain price. But remember, whenever any of those three conditions are <u>NOT</u> met, KaWin will behave as an unregistered program.

Registered users with KaWin Lite registration who upgrade their systems to a Kam or other dual-port TNC, or who add additional TNCs may upgrade their KaWin Lite registration at any time through a KaWin Upgrade registration.

For warranty information, see KaWin technical support.

Term of trial period.

You may use an unregistered copy of KaWin for a period not to exceed 30 days from your first such use. Use that time to determine for yourself the suitability of KaWin to your needs. You may not use KaWin beyond this one-time 30 day period. KaWin is protected by US and international law. Violators of this limited use privilege will be prosecuted.

You may, and are encouraged to, copy and distribute intact, unmodified copies of the complete KaWin distribution file to others, and place it on any computer bbs or other distribution service as long as no charge is made for such distribution beyond the reasonable costs of media and/or connect time.

Registering and obtaining your KaWin Lite registration ID code.

Print the KaWin Lite registration application. Print or type the requested information clearly, especially your call sign and email address. If you are paying by check or money order, attach the check for the registration fees to the application and mail to the address on the application. **VISA and MasterCard** registrations may be submitted by fax. On-line registration is now available from the KaWin Home Page. Your KaWin Lite registration ID code will be returned to you by email.

Alternate call signs are offered at a nominal charge for the convenience of families who share a single station and to support operation using a club call sign. Applications for alternate call signs must be accompanied by copies of the primary and alternate call signs indicate 1) a single station location for all call signs, or 2) the alternate call sign is for a club station. Each alternate call sign will receive its own unique registration ID code. Alternate call signs for a KaWin Lite primary call sign registration will also be subject to the restrictions

of the KaWin Lite registration.

Additional registration codes for holders of **multiple licences** issued to the same individual, **MARS call signs**, and other emergency services alternate call signs, may request registration ID codes for those calls **at no charge** by submitting the change of call sign application along with documentation showing that the licensee of the alternate call sign and the licensee of the registered KaWin primary call sign are the same person. Additional registration codes for a KaWin Lite primary call sign registration will also be subject to the restrictions of the KaWin Lite registration.

Your KaWin Lite registration ID code is an alphanumeric digest derived from your amateur radio station call sign and must agree with the call sign used on all TNCs used with your installation of KaWin. Since this code is unique to your call sign it is not necessary that you keep it secret. If you should change the MYCALL parameter of any open TNC, or open a new TNC with a MYCALL that does not agree with your registered call sign, you can expect the nag messages to re-appear.

Your KaWin Lite registration ID code will register the current version of KaWin - that should be the version you have tested and based your acceptance on. Minor updates to KaWin will be made available periodically through the normal download sources, including the KaWin Home Page. These minor versions will accept the same registration ID codes as the major version they are based on.

Registered KaWin Lite users will be notified by email of major version changes. Major version changes will require re-registration. At the sole discretion of KaWin's author, recent registered users may be sent registration ID codes for the new version by email at no charge. Registered KaWin users may be offered discounted registration on new versions.

Entering your KaWin Lite registration ID code into KaWin.

Registration of KaWin is validated by entering the 27-character KaWin Lite registration ID code that uniquely matches your call sign in the Option/Register dialog. This code is NOT case sensitive and spaces separating code groups may be entered or omitted. Correct entry of your registration ID code is confirmed by a message. This code is stored in the KAWIN.INI file in your KaWin home directory. Should this file be deleted or corrupted you may need to re-enter your registration ID code. Otherwise, you will see no more nag messages.

If you have registered alternate registration ID codes, they are entered in very nearly the same way. Start by opening the Option/Register dialog and **again, enter your primary call**. **Do not enter your alternate call yet!** KaWin will recognize that your primary call sign is already registered and ask if you wish to register an alternate call sign. Click the Yes button and follow the dialog from there. A second alternate call sign may be entered in the same way. Additional alternate call signs may be entered only by replacing one of the two supported alternates.

Re-registering following a change of primary call sign.

Print the change of call sign application. Print or type the requested information clearly, especially your old and new call signs and email address. Document your call sign change by attaching copies of both your old and new licenses. No charge is made for a change of the primary call sign. If you wish to add or change alternate call signs at the same time, complete that part of the application and attach the required documentation (above) and your check or money order for the fees to the application and mail to the address on the application. A change of call sign for the holder of an alternate call sign is the same as applying for another alternate call sign and the alternate call sign fee is again applicable. Your new registration ID code(s) will be returned to you by email.

Thank you for registering KaWin Lite.

KaWin Upgrade Registration

First of all... Congratulations on the upgrade to your station, and if it is the result of an upgrade to your license, congratulations on that, also!

KaWin Lite registration is a special opportunity for owners of the Kantronics Kpc-3 or other Kantronics single port TNCs. The KaWin Upgrade registration provides an economical path to keeping your KaWin functionality in step with your station. For users with KaWin Lite registrations, the KaWin Upgrade registration offers full KaWin registration for an economical, incremental fee.

> **KaWin Upgrade registration is ONLY available to KaWin Lite registered users. The KaWin Upgrade registration fee is US$49.**

KaWin Upgrade is NOT a separate program. KaWin Upgrade registered users use exactly the same KaWin program, but the single, single-port TNC restriction of KaWin Lite is removed, enabling support for multiple, dual-port TNCs and all of the HF modes of the Kam.

Registered users with KaWin Lite registration who upgrade their systems to a Kam or other dual-port TNC, or who add additional TNCs may upgrade their KaWin Lite registration at any time through a KaWin Upgrade registration.

For warranty information, see KaWin technical support.

Registering and obtaining your KaWin Upgrade registration ID code.

Print the KaWin Upgrade registration application. Print or type the requested information clearly, especially your call sign and email address. If you are paying by check or money order, attach the check for the registration fees to the application and mail to the address on the application. **VISA and MasterCard** registrations may be submitted by fax. On-line registration is now available from the KaWin Home Page. Your KaWin Lite registration ID code will be returned to you by email.

Alternate call signs are offered at a nominal charge for the convenience of families who share a single station and to support operation using a club call sign. Applications for alternate call signs must be accompanied by copies of the primary and alternate call signs indicate 1) a single station location for all call signs, or 2) the alternate call sign is for a club station. Each alternate call sign will receive its own unique registration ID code.

Additional registration codes for holders of **multiple licences** issued to the same individual, **MARS call signs**, and other emergency services alternate call signs, may request registration ID codes for those calls **at no charge** by submitting the change of call sign application along with documentation showing that the licensee of the alternate call sign and the licensee of the registered KaWin primary call sign are the same person.

Your KaWin Upgrade registration ID code is an alphanumeric digest derived from your amateur radio station call sign and must agree with the call sign used on all TNCs used with your installation of KaWin. Since this code is unique to your call sign it is not necessary that you keep it secret. If you should change the MYCALL parameter of any open TNC, or open a new TNC with a MYCALL that does not agree with your registered call sign, you can expect the nag messages to re-appear.

Your KaWin Upgrade registration ID code will register the current version of KaWin - that should be the version you have tested and based your acceptance on. Minor updates to KaWin will be made available periodically through the normal download sources, including the KaWin Home Page. These minor versions will accept the same registration ID codes as the major version they are based on.

Registered KaWin Upgrade users will be notified by email of major version changes. Major

version changes will require re-registration. At the sole discretion of KaWin's author, recent registered users may be sent registration ID codes for the new version by email at no charge. Registered KaWin users may be offered discounted registration on new versions.

Entering your KaWin Upgrade registration ID code into KaWin.

Registration of KaWin is validated by entering the 27-character KaWin Upgrade registration ID code that uniquely matches your call sign in the Option/Register dialog. This code is NOT case sensitive and spaces separating code groups may be entered or omitted. Correct entry of your registration ID code is confirmed by a message. This code is stored in the KAWIN.INI file in your KaWin home directory. Should this file be deleted or corrupted you may need to re-enter your registration ID code. Otherwise, you will see no more nag messages.

If you have registered alternate registration ID codes, they are entered in very nearly the same way. Start by opening the Option/Register dialog and **again, enter your primary call**. **Do not enter your alternate call yet!** KaWin will recognize that your primary call sign is already registered and ask if you wish to register an alternate call sign. Click the Yes button and follow the dialog from there. A second alternate call sign may be entered in the same way. Additional alternate call signs may be entered only by replacing one of the two supported alternates.

Re-registering following a change of primary call sign.

Print the change of call sign application. Print or type the requested information clearly, especially your old and new call signs and email address. Document your call sign change by attaching copies of both your old and new licenses. No charge is made for a change of the primary call sign. If you wish to add or change alternate call signs at the same time, complete that part of the application and attach the required documentation (above) and your check or money order for the fees to the application and mail to the address on the application. A change of call sign for the holder of an alternate call sign is the same as applying for another alternate call sign and the alternate call sign fee is again applicable. Your new registration ID code(s) will be returned to you by email.

Thank you for upgrading your KaWin Lite registration.

New Call SignKaWin Change of Call Sign Application

Click here to print this application. Refer to **Registration** for instructions. Also, use for free MARS call registration for registered users.

Registered Call Sign: _____ **New Call Sign:** _____
Attach copies of old and new licenses.

Name:

EMail Address: _____
Email addresses are case sensitive! Clearly indicate upper/lower case.

Postal Address:

_____

US$ **No/Charge**   **KaWin Re-registration.** The Registration ID for the New Call Sign or MARS call sign above will be sent to your **email** address (or, mailing address if email is not available).

US$_____   **US$15 - 1st Alternate Call Sign.** Applications for alternate call signs must be accompanied by copies of the primary and alternate call signs indicating 1) a single station location, or 2) the alternate call sign is a club station.

US$_____   **US$15 - 2nd Alternate Call Sign.** Applications for alternate call signs must be accompanied by copies of the primary and alternate call signs indicating 1) a single station location, or 2) the alternate call sign is a club station.

US$_____   **Total Order Amount**

Charge to VISA/MasterCard #:

Card Expires: (VISA/MasterCard may be faxed to 303 444 2314) _____

___ **Check or money order attached.**

Please sign below and forward with your check or US money order to:

> KaWin Registration
> 4655 Pleasant Ridge Rd.
>
> Boulder, CO 80301

I accept the terms and conditions of the KaWin warranty.

Signature:

Window

The Window menu is also available by clicking the **right mouse button** on a **context selection tab**   -   **menu commands will point to that context.**

Watch Current Context
... Opens a   watch window to monitor activity in the currently selected context's receive window. The default location for this watch window is above the receive window. This watch window will remain open and updated until closed (see below) or replaced by another watch window (by using this command again).

Heard On This Radio
... Sends the MHeard command to the TNC associated with the current context and displays the results in a watch window. The default location for this watch window is to the right of the receive window. This watch window will remain open until cleared or replaced by another watch window but is not updated.

Swap Watch
... Makes the watch window context the current context while the current context becomes the watch window context.

Flip Window Location
... Toggles the location of the current watch window between, above the receive window, and, to the right of the receive window.

Close Watch Window
... Closes the current watch window.

ANSI Viewer
... Invokes the ANSI viewer.

Enable/Disable Unproto Send
... By default, there is no send window associated with a "mon" VHF packet monitor context, making it impossible to accidentally transmit unconnected, or "unproto", packets. If the current context is a "mon" context, enabling unproto with this command opens a send window, and disabling unproto closes it.

Record Current Context
... This is an alternative menu command that accomplishes exactly the same function as the File/Record Context menu command. It is here as an operating convenience.

Clear Current Receive Window
... Clears the contents of the receive window for the current context.

Disconnect Current Context
... This is an alternative menu command that accomplishes exactly the same function as the Connect/Disconnect menu command. It is here as an operating convenience.

Purge Current Context
... This is an alternative menu command that accomplishes exactly the same function as the Connect/Purge Context menu command. It is here as an operating convenience.

Help

This menu supports these functions:

Contents and Search
    ... these are electronic metaphors for the Table of Contents and Index of a reference book.

Keyboard Help
    ... offers direct access to a list of keyboard shortcuts in KaWin and Windows.

Help on Help
    ... help from Microsoft on using the Windows help system.

Register
    ... how to register KaWin and end the messages.

KaWin **Technical Support**
    ... how to get help from the author and other users of KaWin.

About KaWin
    ... identifies the version of KaWin that you are using.

KaWin Keyboard Conventions

See Also: Mouse Shortcuts

Help Keys

<F1> Opens this help file to a context-sensitive topic.

<ctrl-F1> Opens this help file to the Contents topic.

<shift-F`1> Opens this help file to the Search dialog.

Navigation and Selection Keys

<esc> Returns the focus to the send window. If a dialog with a Cancel button has the focus, the Cancel button is selected. If a file operation progress box is visible in the status bar, the status detail dialog is displayed.

<tab> Moves the focus to the next object in the tab sequence.

<alt-arrow keys> Changes the currently selected tab.

<pageup> Pages back through the receive window.

<pagedown> Pages forward through the window with the current focus.

<arrow keys> Moves the insertion point (the cursor) one character or one row.

<ctrl-left arrow><ctrl-right arrow> Moves the insertion point one word.

<home><end> Moves the insertion point to the beginning or end of the current line.

<ctrl-home><ctrl-end> Moves the insertion point to the beginning or end of the current window.

<shift-arrow keys><shift-home><shift-end><shift-ctrl-home><shift-ctrl-end> Creates or extends a selection of text in the current window.

<insert> Toggles editing between insert (default) and overwrite. editing is not possible in the receive window.

Accelerator Keys

KaWin follows Windows conventions by assigning accelerator keys to nearly every command and control. These are identified in the menus and dialogs and on the screen by an underscored character, and are accessed in the conventional Window manner by the <alt-key> combination, where "key" is the underscored accelerator key. Remember to omit the <alt> below the top level of the menu.

Shortcut Keys

Many KaWin commands also have shortcut keys assigned. Shortcut keys for menu commands are noted **to the right of the command in the menus**. Six HF Mode menu commands are assigned shortcuts using combinations that include either of F11 or F12. For those KaWin users who remain loyal to the older keyboard that lacks these keys, KaWin also recognizes these four shortcuts that are not noted in their menus:
  <ctrl-r> HF Mode/Receive, also <F12>
  <ctrl-t> HF Mode/Transmit, also <ctrl-F12>
  <ctrl-b> HF Mode/ClearSendBuffer, also <ctrl-F11>, and
  <ctrl-a> HF Mode/Abort!, also <shift-ctrl-F11>.

Quick Keys

16 shortcut keys, <ctrl-F2> through <ctrl-F9>, and <shift-ctrl-F2> through <shift-ctrl-F9> are reserved as Quick Keys for assignment by you to strings of text and/or macros.

Sending special key codes

Nearly all 256 possible ASCII characters can be sent by KaWin in those modes which support the full character set (Packet, ASCII, Pactor, and G-tor). Most control-character combinations are preempted for KaWin command shortcut keys, but all may be included in outgoing messages through the following key combinations.

Hex 01 - Hex 1a (dec 001 - 026), ASCII control-characters, are sent with the key combinations <alt-ctrl-a> through <alt-ctrl-z> respectively. Note: these characters may be displayed in the receive window as their corresponding ^a through ^z representations, but the actual ASCII control character is sent to the TNC.

Hex 08 (dec 008), <backspace>, is sent in Pactor and ASCII. In other modes it acts as a local backspace to edit the un-sent text in the send window.

Hex 09 (dec 009), <tab>,   can be sent with <ctrl-tab>.

Hex 0d (dec 013), carriage return, can also be sent with <shift-enter>.

Hex 1a (dec 026), ctrl-z, can also be sent with <ctrl-z>.

Hex 1b (dec 027), <esc>,   can be sent with <shift-esc>.

Hex 20 (dec 032) is the space key.

Hex 21 - Hex 7e (dec 033 - 126) are the printable ASCII characters and all have assigned keys on most keyboards, but can also be sent by the last method.

Hex 21 - Hex ff (dec 033 - 255), including the extended ASCII set may be sent by the standard Windows convention of <alt-nnnn>, where nnnn is the four digit (leading zero) decimal value of the character to be sent, and is entered by holding down the alt-key while typing the four digits on the numeric keypad.

This leaves Hex 00, and Hex 1c - Hex 1f without a keyboard send method, and Hex 1c - Hex 1f may be sent by any of the File/Send commands by including them in a file. If this proves to be a problem, let me know.

ANSI Viewer

The Window/AnsiViewer command opens the ANSI viewer to scan and then watch, the current context for valid ANSI graphics sequences. The ANSI viewer emulates most of the features of the old MSDOS installable driver, ANSI.SYS, and permits <u>viewing, capture and sending</u> of these simple cartoon-like graphics.

ANSI View Menu

View Current Context or Viewing xxxxxx

Determines the context that is scanned and watched for ANSI sequences. When the viewer is invoked it will automatically scan the receive window of the current context for valid ANSI sequences. It will then continue to watch that same context for valid ANSI sequences as long as this command is checked. Selecting this command stops the watch and removes the check. Selecting this command again starts a new scan and watch in the now current context.

If multiple valid ANSI pictures are found, each is displayed as it is scanned and only the last picture is retained for further manipulation.

Save To File, As

... Displays a standard file save dialog in the <u>default directory.</u> The default file extension is .ANS.

Open & Read From ANSI File

... Displays a standard file open dialog in the default directory. The selected file is opened and scanned for valid ANSI sequences.

Send To Current Context

... The ANSI picture in the viewer display is sent to the current context. The displayed picture may have been read from a file with the Open & Read From ANSI File command, or captured from another (or the same) context with the View Current Context command.

Keep On Top

... When checked, the ANSI viewer refuses to be hidden behind other windows.

Larger/Smaller Canvas

... Re-draws the viewer at a larger or smaller size. Resolution in all sizes is the old MSDOS standard character mode resolution of 80 x 25 characters so the size of the canvas depends on the available point sizes for the Terminal font in your Windows installation. This command is only functional if more than a single point size of Terminal font is available.

Exit ANSI Viewer

... Clears and closes the viewer. If the viewer is reopened it will reappear in the same location it was last closed.

<u>Continue browsing this help file</u>.

Use These Delimiters

All text that you send is also echoed to the receive [window](#) for a complete chronological record of both sides of a QSO. Delimiter characters are used before and after each block of sent text to help distinguish your sent text from the received text in the receive window. The delimiters used are chosen from the extended ASCII set (characters above 0x7f - dec 127). These characters are interpreted to the screen differently by differently screen fonts.

The symbols   intended by the author are « and » respectively. These two symbols are assigned to at least two different pairs of characters in common fonts. The Use These Delimiters dialog permit selection of an appropriate pair of symbols with most fonts. Note that the selection will apply only to delimiters sent to the receive window after the selection is made.

Control Character Display

The control characters, x00 - x1F (decimal 000 - 031), will be displayed in one of two ways, or not displayed at all (default), based on the option selected here.

[Continue browsing this help file](#).

HF Mode/CQ Options

Presets the defaults, for the selected HF mode, for the [KaWin CQ robot.](#)

HF Mode/CW Tone

Presets the center frequency of the KAM's CW decoder for CW mode. For best CW performance and accurate transceiver display of the received CW carrier frequency, this value should agree with the CW displayed frequency offset for your transceiver. Some modern transceivers permit flexible selection of this offset, but many are fixed - commonly at 800 or 750 Hz.

Since the KAM also uses this parameter for the single-tone audio CW modulation used for ARQ CW identification, KaWin manipulates this setting with each mode change between an ARQ mode and CW mode. In an ARQ mode, KaWin sets the CW tone parameter as close as possible to the AFSK mark frequency for the selected mode. This insures that the ARQ CWID is transmitted on or near the frequency of the ARQ transmissions.

KaWin will always attempt to leave this parameter at the preferred CW setting at the end of a KaWin session.

HF Mode/CW Speed

Presets the transmit and initial receive speed for CW mode. Since the CW decoding capability of the KAM will track to any speed that is plus or minus 20 wpm of this setting, a value in the 20 - 30 wpm range will capture most received signals.

Since the KAM also uses this parameter for the single-tone audio CW modulation used for ARQ CW identification, KaWin manipulates this setting with each mode change between an ARQ mode and CW mode. In an ARQ mode, KaWin sets the CW speed parameter to the 20 wpm maximum value permitted for US amateurs for CW identification in FSK modes.

Use the HF Mode/CW Speed Set command to change CW speed while operating in CW mode.

HF Mode/ASCII Speed

Presets the data rate at which ASCII will be sent and received.

HF Mode/RTTY Speed

Presets the data rate at which RTTY will be sent and received.

HF Mode/Send Mode Default

Presets the default value of the send mode selector for contexts using this HF mode.

HF Mode/Respond To Connect Requests

When checked, the KaWin will respond to incoming connect requests while in G-tor monitor mode by allowing the connect. When not checked, the KAM will ignore all connect requests.

This is a KaWin extension to the G-tor monitor mode (available in KAM version 8.0 and later).

HF Mode/Default Quick Key Set

Presets the default [quick key set](#) for contexts using this HF mode.

HF Mode/Set AFSK Tones

Invokes the KaWin AFSK [tone calculator](#) dialog to calculate and preset the preferred tones for each HF modes

HF Mode/Arq ID Time Interval

Presets the time interval, in minutes, for the [automatic CW ID](#) while an ARQ connect is active in this mode.

HF Mode/ARQ Disconnect Mode

Presets the mode for the KAM following a disconnect from an ARQ connect in this mode.

HF Mode/Arq ID

When checked, instructs the KAM to automatically send a CW ID after the selected @interval@ while an ARQ connect is active in this mode.

Request Input

This dialog is used by the following functions:

Quick Reset QSO# - expects a number, or + or -, or clear.

Quick Quick Msg - expects the text of your quick message, or clear.

Quick Local WX - expects the text of your local weather statement, or clear.

Notice

This message is not context sensitive.

AFSK Tone Calculator

1. **Determine the offset** between the frequency displayed by your transceiver and the SSB suppressed carrier frequency in the selected transceiver mode (AFSK, LSB, etc.). Refer to your transceiver's operating manual.

2. Select which transmitted AFSK signal you wish to correlate to the displayed frequency: the **mark** frequency, the **space** frequency, or the midpoint (**center**) between them.

3. Select the desired AFSK **shift**.

4. Select the **mode**(s) that these tones are to apply to. Multiple modes may be selected and preset in one action.

5. **OK**.

Note 1. RTTY and Amtor have traditionally used 170 Hz shift. HF Packet has developed using 200 Hz shift. Pactor and G-tor users are divided between these existing standards. Good luck!

Note 2. Check to see that your selected tones are within the optimum audio passband of your transceiver.

Note 3. Changes to mark and space tones are refused by a Kam while connected on either port of that Kam.

AFSK Basics

All of the KAM's HF modes, other than CW, employ some form of frequency shift keying (FSK) of your transmitter's signal. When transmitting an FSK signal you transmit as close to a pure sinewave CW signal as possible, shifting between two closely spaced frequencies in a time-dependent pattern that conforms to one of the KAM's digital modes, e.g., RTTY, Pactor, etc. All KAM users will use the KAM's AFSK capability to receive FSK signals and most will also transmit using AFSK. AFSK takes advantage of your modern transceiver's ability to transmit and receive very clean SSB signals to simulate FSK.

When you use SSB for voice communication you refer to your suppressed carrier frequency as your transmitting frequency. In reality, you are transmitting not a single frequency, and hopefully not at the indicated dial frequency, but rather a (narrow?) spectrum of frequencies that represent your voice modulation, that is displaced from your suppressed carrier frequency by the values represented in your voice spectrum, and either above or below your suppressed carrier frequency depending on whether you are transmitting USB or LSB. Since that voice spectrum is somewhat variable from operator to operator, the suppressed carrier frequency is about all we have to refer to.

If you modulate your SSB transmitter's signal with a single, pure sine wave, audio tone rather than a voice spectrum, the resulting signal is indistinguishable from any conventional CW signal. It is a single, pure sine wave radio frequency emission at a frequency that is displaced from your suppressed carrier frequency by the value of the audio tone, either above or below your suppressed carrier frequency depending on whether you are transmitting USB or LSB. Toggle that audio tone between two tones that are separated by exactly 170 Hz and you are transmitting a standard amateur FSK signal. Use your SSB transceiver's receive capability to reverse the process and your KAM is presented with received audio tones to demodulate into received data.

There are two problems with this approach. The first is that it evolved without the transceiver manufacturers and the TNC manufacturers agreeing on any standards for relating the AFSK audio tones to the RF frequency displayed on your transceiver's front panel, and, second, that amateur use of FSK modes has departed so rapidly from its RTTY roots that what standards that existed have been overlooked by many operators. Transceivers that offer an AFSK mode (sometimes labeled "Packet") displace the displayed frequency by some amount that is supposed to be better related to the actual FSK emissions. But they must make three assumptions in determining this offset.

First, they control the direction of the offset by always using LSB for AFSK. This works, because nearly all amateur AFSK operators do also.

Second, they have to decide what they, and you, mean by your frequency. After all, in FSK we are using two frequencies. The common choices are the mark frequency, the space frequency, or the mid-point between them. Here there is no agreement between manufacturers and even less between operators. Disturbingly few amateurs have thought about the question, and fewer know which to use, when. The published frequencies of Aplink and WinLink station are always mark frequencies. DX Cluster spots for RTTY stations usually reference mark frequency also. **Mark frequency should be your first choice for a reference frequency for all digital modes except CW and HF packet.**

Third, the manufacturers have to assume a pair of audio frequency tones that you will use to modulate their transmitter. This choice is very critical to HF digital mode performance. If the tones you use are outside of the narrow passband that the transceiver designed provided your performance will suffer badly. Most HF TNCs offer only a fixed pair of tones, so the transceiver manufacturers are betting on who will be the market leader during the expected product life of their transceiver. Fortunately, you were a clever shopper, and invested in a

KAM, with software determined AFSK tones! So, you can use tones that your transceiver's was designed for.

The following illustration shows the transmitted signal of an RTTY operation on a mark frequency of 7085.0 KHz and a shift of 170 Hz, along with the relationship between the suppressed carrier frequency, and the mark and space frequencies, and two audio tones that will produce them. These tones would be a good choice with a transceiver that is designed to display the mark frequency with a mark tone of 2125 Hz. These are the default tone settings for KaWin.

Space	Mark	Suppressed Carrier	Signal
7084.83	7085.0	7087.195	RF KHz
2295	2125	0	Tone Hz

The KaWin tone calculator will set your KAM to the proper tones for a wide range of transceivers.

Transceivers that lack an AFSK mode are not left out in the cold. It just requires a little more care to select the optimum settings. Use SSB-LSB for ASFK on all bands - that may require an extra step to defeat the automatic selection of USB on frequencies above 14 MHz.

Option/Quick Connect Organizer

Create, edit and delete quick connect entries. Quick connects are displayed in the Connect/Connect dialog as an easy way to remember and access your most frequent connections. Temporary quick connects for the PBBS in each TNC are added as each TNC is opened.

To edit an existing quick connect, select its title from the displayed list, then edit the title, call sign and quick connect path, select an appropriate quick key set, and select the radio from which you are most likely to initiate a connect to this station.

The Connect/Connect dialog will give you the opportunity to change the selected radio with each connect, and if the radio is on the HF port of a KAM, will give you the opportunity to select the HF mode for that connect.

Quick connect paths must be intelligible to your TNC and, optionally, to any nodes that you address. Use the "|" (vertical separator bar, usually <shift-\>) to separate elements of the path. KaWin will feed all of the path up to the first "|" to the TNC when you initiate this quick connect. Subsequent elements will be fed in turn to each station (node?) in the path. Make sure that all elements after the first include a command, such as "c", to tell the node what it is you want it to do for you. these are a few typical paths:

> **kf0ia   ...**simple enough.
> **bldr|c kf0ia**   ... connects to node bldr, and then to kf0ia.
> **bldr v n0mdk|c kf0ia s**   ... digipeats through n0mdk to node bldr, then to kf0ia, requesting that node bldr NOT disconnect when kf0ia does.

See also: Option/General, Option/Directories, Option/TNCs & Radios, Option/Fonts & Colors, Option/Quick Key Organizer and Option/Identifiers.

Option/Quick Key Organizer

The quick key organizer allows editing of any quick set, or parallel editing of two sets in parallel. This parallel editing feature is designed to permit easy organizing of similar quick key sets so that similar quick key definitions are assigned to the same key in each set.

To open an existing set for editing, select the set from the either of the left or right lists. To create a new set from scratch, click on New.

Edit by clicking on an empty label, then fill in the quick key name and definition in the editing boxes at the bottom of the screen. Quick key definitions may include macros. Rearrange quick keys by dragging with the mouse (press and hold the left mouse button while dragging to a new location). If the new location is occupied, the quick keys will shift to make room. Copy quick keys from one set to the other by dragging in the same way. Dragging a quick key label to the "Delete a definition" icon will delete the quick key.

See also: Option/General, Option/Directories, Option/TNCs & Radios, Option/Fonts & Colors, Option/Quick Connect Organizer and Option/Identifiers.

Option/TNCs & Radios

Configures, opens and closes your TNCs.

Configure up to four TNCs, any of which may be open and active concurrently. These parameters are uniquely stored and set for each configured TNC.

Select one of the four available TNCs, select the TNC type, and pay particular attention to the **Win Com Port** and **Com Port bps** parameters.

Checking "AUTO OPEN STARTUP" eliminates the need to return to this dialog to open the TNC each time you start KaWin.

The "HOST MODE CLOSE" box (default) is recommended for faster startup and end of every KaWin session. The only reason to not check this box is to preserve compatibility with "terminal" mode software.

Incoming connects and received "bell" characters in connected contexts are always signaled by a beep. Checking the "Pop to top" box will add a visual signal by popping KaWin to the Windows foreground with that context made current.

By default all TNC parameters that are modified without your consent will be restored to their original state when the TNC is closed or at the end of the KaWin session. This can be disable by unchecking the "Restore changed parameters" box.

Assign easily recognized names to each TNC and each radio in your system. Kantronics TNCs include both single and dual port models. With KaWin, both ports of a dual port TNC are active concurrently. Thus, it is more useful to identify contexts by the radio through which they communicate, rather than the TNC.

The "Paclen" parameter(s) replace the TNC's PACLEN parameter in determining the maximum size of a transmitted packet. There is little reason to use less than 256 (default).

Startup files, if selected and checked, are sent to the TNC as TNC command files before KaWin sets its required TNC parameters. Shutdown files are sent to the TNC after KaWin's normal shutdown commands.

See also: Option/General, Option/Directories, Option/Fonts & Colors, Option/Quick Key Organizer, Option/Quick Connect Organizer and Option/Identifiers.

Option/Directories

Determines the search directory or file name for each of the displayed files. To change a setting, click on the corresponding Browse button.

File transfer parameters are displayed by selecting the File Transfer Options button.

See also: Option/General, Option/TNCs & Radios, Option/Fonts & Colors, Option/Quick Key Organizer, Option/Quick Connect Organizer and Option/Identifiers.

Option/My QTH

Determines the values for the geographic position coordinates and locator grid for your station. This information is used to calculate distance and heading information and to supply the values for the \P, \p, \L and \l [macros](#).

Lookup (your callsign) in database. If a callsign database that includes geographic coordinate information (Radio Amateur Callbook and Buckmaster Hamcall) is enabled this command button will be enabled. Use it to quickly set the coordinates of your station. Note: geographic coordinates from these databases are derived from US zip code and/or street address information. It is generally available for US callsigns and the precision will vary with the population density of your area.

Latitude and Longitude. Enter these values in degrees and decimal degrees and indicate North/South and West/East hemispheres.

The decimal portion of the degrees and decimal degrees (DDD.ddd) may be computed from degrees, minutes and decimal minutes (DDD° MM.mm) by dividing 60 by minutes and decimal minutes (60 / MM.mm).

The decimal portion of the degrees and decimal degrees (DDD.ddd) may be computed from degrees, minutes, seconds and decimal seconds (DDD° MM' SS.s") by dividing 60 by minutes (60 / MM) and then adding the result of dividing 3600 by seconds and decimal seconds (3600 / SS.s).

Locator. enter either the four character (AAnn) or the six character (AAnnaa) Maidenhead Locator for your QTH. If you check the box labeled **Calculate Locator from Lat/Lon**, KaWin will calculate your six character Locator.

<Ctrl-d> restores the selected configuration option to its default value.

Option/Analog Monitor

This feature applies only to the Kpc-3 Plus. Refer to the Kpc-3 Plus Users Guide for hardware configuration information.

Determines which analog input lines on which open Kpc-3 Plus Tncs will be monitored and which will be logged to a disk file. Sets polynomial coefficients for computing meaningful results from the raw A/D values. Analog results may be accessed and inserted into outgoing text by use of the \aID <u>macro</u>.

Sample analog input levels on Tnc. Selects which open Kpc-3 Plus the remaining settings apply to.

... **every nnn seconds.** Sets the sampling interval for all analog lines on this Kpc-3 Plus. Default is to sample every 10 seconds.

... **Show in cmd context.** When checked, the ANaolog command and its return values will display in the cmds context for this Kpc-3 Plus. Default is NOT checked.

The remaining configuration options apply to each of the eight analog lines on the selected Tnc.

ID. A two-digit KaWin assigned identifier, composed of the Tnc number (1 - 4) and the analog line number (0 - 7).

Monitor. When checked, this analog line will be monitored and the computed values displayed in the <u>KaWin Status Bar</u>. None of the remaining configuration options is available without this being checked.

Log to file. When checked, this analog lines computed values will be logged to a disk file. If the log file has not previously been established the user will be prompted for a file name when the first sample is captured.

Coefficients A, E, B and C. These are used to compute a more meaningful result from the raw A/D sampled value. The raw A/D sampled values are integers in the range 0 to 255. This raw sampled value is adjusted by solving the polynomial expression:

Result = A * x ^ E + B * x + C

Where x = the raw sampled value. The default settings scale the sampled values to a result in the range 0 - 5.00 which would be an accurate measurement of DC volts given the factory configuration of the Kpc-3 Plus.

Decimal. Determines how many significant figures are displayed before and after the computed decimal point.

<Ctrl-d> restores the selected configuration option to its default value.

Option/Fonts & Colors

Status Bar - determine the text and background colors of those status boxes that do not have pre-assigned color codes. Note that the font for the status bar is fixed and any change made in this dialog is ignored. Zeros, appearing in text in the Status Bar as well as in callsigns on Context Selection Tabs, are normally displayed as slashed zeros. This may be disabled by unchecking the box, "Slash Zeros".

Windows WITH/WITHOUT focus - determine the text and background colors and text font and font size of the receive, watch and send windows when they do not currently have the focus.

In Windows, focus is the attribute of receiving keyboard actions. In order for your typing to be directed to a connected station, the focus must be in the send window. To scroll back through and select received text, the focus must be in the receive window. By selecting text and/or background colors that preserve a small but clear contrast between windows with and without the focus, it is easy to see where your keyboard actions will be directed.

Your choice of fonts for either windows with or without the focus will determine the font used for both. In addition to considerations of size and ease of recognition, your choice of font will affect the interpretation of ASCII characters beyond the standard printable set. Extended ASCII characters (beyond Hex 127) may be interpreted in some fonts as accented characters, as used in the alphabets of languages other than English, while other fonts may assign symbols as used in character mode graphics to these same ASCII characters. Your choice of font for the receive window also affects the symbol used to identify and delimit sent text in the receive window. Consider your choice carefully.

KaWin offers all mono-spaced typefaces with font sizes between 6 and 18 points that are installed in you windows environment. Non-monospaced   typefaces (proportional spaced fonts) make up most of the fonts we normally use in Windows, but are not yet the norm in amateur radio digital communications, as they cause serious problems for the operator on the other end with a mono-spaced font.

See also: Option/General, Option/Directories, Option/TNCs & Radios, Option/Quick Key Organizer, Option/Quick Connect Organizer and Option/Identifiers.

Option/General

This dialog displays and sets a variety of parameters that influence and aid your KaWin operating environment.

First are the default settings for two quick variables: local WX and the quick message. Next (and only applicable to KAM TNCs) is the text for the linkdown message, sent whenever the HF Mode/Link Down command is selected.

The next two parameters determine the program that will be invoked by the Edit/Editor command, and any command line arguments it may require to start up just the way you like it. Click on the Browse button to select the your favorite editing program. Selection of a non-Windows editor is certainly possible, but it will probably not accept cut and paste from the Windows clipboard - the major purpose for this command.

The sizes of the send, receive and watch windows (when present) can be changed at any time by merely dragging the separator bar with the left mouse button held down. The send window (lines) parameter determines the initial size of the send window for new contexts.

The Context tab width parameter determines the approximate width of each context selection tab, and indirectly determines the number of tabs are displayed in each row of tabs. The number of tabs displayed is also determined by the width of your main KaWin window and changes dynamically as you resize the window

The next three parameters determine the relationship between your computer system's clock calendar and the KaWin time.   If your computer is set to UTC time, then enter 0 in the UTC-system box and uncheck the US DST box. Otherwise, enter the number of hours your time zone is EAST of UTC (EST=5, CST=6, CET=-1, etc.). If your computer system's clock is reset according to the calendar for US DST, leave the UTC-system clock on the standard time zone and check the US DST box for automatic adjustment to correct UTC time. If you change to summer-time on a schedule other than that adopted by most US states, just adjust the UTC-system box by one hour, twice each year.

Set the default for the Send Mode Selector for connected VHF contexts.

By default, KaWin will assume a window size that is determined by the size and resolution of your screen, and will center itself in your screen. During a KaWin session the KaWin window may be moved and resized as often as you like. If you find a location and size you like better than the default, you may preserve it for the next session by selecting Save current window position. Checking Save window position on exit will ensure that KaWin starts each session in the same position and size as you ended the last.

See also: Option/Directories, Option/TNCs & Radios, Option/Fonts & Colors, Option/Quick Key Organizer, Option/Quick Connect Organizer and Option/Identifiers.

Option/Identifiers

Single port TNCs, like the kpc-3, have only five applicable ID parameters, but a Kam has 18 parameters that are usually derived from the users call sign. This dialog permits synchronizing all, or any subset, of these with a single command.

You may override any of the computed values and indicate which are to be synchronized, cleared, or left alone (don't synchronize).

See also: Option/General, Option/Directories, Option/TNCs & Radios, Option/Fonts & Colors, Option/Quick Key Organizer, and Option/Quick Connect Organizer.
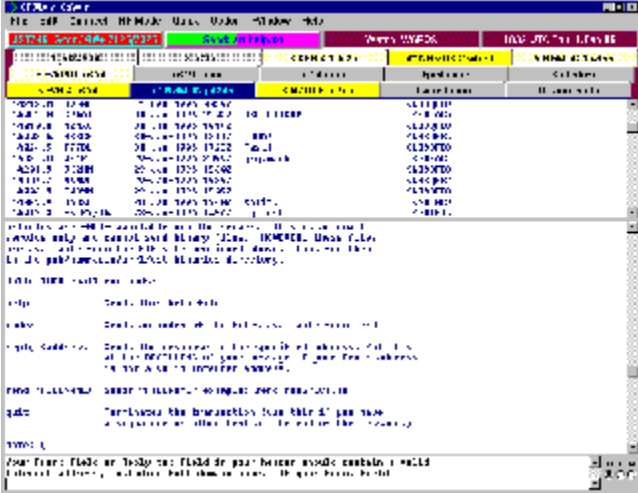
Confirm File Action

This message is not context sensitive.

KaWin Screen

Click on screen image for more help

TOR Modes - Hearing the Difference

This discussion, and the accompanying sound samples, are the work of Gloria Medcalf, ka5ztx, and are presented here with Gloria's kind permission.

The most popular place to hear TOR modes is from 14.065 to 14.095 MHz. Amtor, Gtor, Pactor, Rtty, and several other modes (such as, Clover, Packet, Pactor II) co-exist in this small range of frequencies. To the untrained ear, and sometimes to the trained ear, it can be difficult to distinguish one mode from the other.

TOR modes have two modes of transmission, FEC (Forward Error Correction) and ARQ (Automatic Repeat Request, sometimes referred to as linked or connected). FEC is used for calling CQ and "broadcasting". ARQ is used for having a QSO with a particular station.

FEC modes

When transmitting FEC, the transmitter is keyed for the entire time it takes to transmit all the data; then, the transmitter is unkeyed. The person sending the data then waits to see if anyone responds. The protocol of the data can vary from one TOR mode to the next. (Protocol descriptions are beyond the scope of this article. Rtty is not an FEC mode because it contains no error correction scheme. However, it is included here because it can sound similar to FEC and is fairly popular.)

Amtor FEC and Rtty are transmitted as a continuous stream of data. Idle characters that have a distinctive, repetitious sound are transmitted when the person does not type as fast as the data is being transmitted. On the amateur bands, Rtty is normally transmitted at 45 bits per second (bps. In this case it is equivalent to baud rate). Many MBOs (bulletin boards) typically transmit at 75 baud. Amtor FEC is transmitted at 100 baud. Each bit is heard as either a high tone or a low tone. As the bits per second increases, the less likely you are to hear each individual tone. You are more likely to hear a noise, which may seem to have a pattern.

WAV sound files: Amtor FEC 100 baud, Rtty 45 baud.

Pactor FEC is transmitted at 100 baud (by default. It may be transmitted at 200 baud). Pactor FEC can sound extremely similar to Amtor FEC. However, Pactor FEC is not a continuous stream of data. It is a frame (packet) of data for 0.96 seconds, then a short period of other tones, then another frame, etc. Each frame begins with alternating tones; therefore, there is a distinctive pattern that happens approximately once every second. However, it only lasts for 0.08 seconds for 100 baud and 0.04 seconds for 200 baud. Careful listening and a bit of luck are required to hear the difference between Pactor FEC and Amtor FEC.

WAV sound files: Pactor FEC 100 baud, Amtor FEC 100 baud.

Gtor does not have an FEC mode. Operators use Amtor FEC to call CQ and specify that they want a Gtor link.

Note: You can have a signal perfectly tuned and nothing will display on the computer screen. There are several reasons for this; for example: 1) The person isn't saying anything, so idle characters are being sent. 2) Amtor periodically transmits characters that are necessary for synchronization. Nothing will display unless the signal is synchronized. 3) In Amtor mode, some receiving units must receive a carriage return and line feed in the received data before they will begin displaying on the screen. 4) If Pactor frames are bad (according to an error-correction byte (FCS)), they will not be displayed.

ARQ Modes

ARQ modes have a distinctive cycle. One station transmits data, then waits for an

acknowledgment. The other station transmits the acknowledgment, then waits for data. The protocols specify the length of time for the cycle, the data, and the acknowledgment (ack).

ARQ modes are easy to tell apart because of the length of the cycles. Amtor has a short cycle (about 1/2 second) and is chirpy sounding. The Pactor cycle is just over 1 second long and the Gtor cycle is just over 2 seconds long. If you can count seconds, you'll have an easy time distinguishing the three modes.

Mode	Cycle Length	Data Length	Ack Length
Amtor	0.45 second	0.21 second	0.07 second
Pactor	1.25 second	0.96 second	0.12 second
Gtor	2.40 second	1.92 second	0.16 second

Optionally, Pactor may have a 1.40 second cycle length, which allows for long-path signals.

WAV sound files: Amtor ARQ 100 baud, Pactor ARQ 200 baud, Gtor ARQ 200 baud.

The sound files produce both sides of the link. When listening to the radio, you may hear both stations, or you may hear only one station (either the data or the ack).

Pactor may be at 100 or 200 baud and Gtor may be at 100, 200, or 300 baud. A difference in baud rate will change the transition speed from one tone to the next, making the signals sound slightly different. However, the cycle times remain the same.

Where to Find TOR Signals

Amtor, Gtor, Pactor, and Rtty are often found near the following frequencies:

20 meters - 14.065 to 14.095 MHz

40 meters - 7.065 to 7.095 MHz

80 meters - 3.600 to 3.650 MHz

Glossary

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Host Mode

Kantronics Host Mode is a TNC to computer communication protocol that avoids the limitations and ambiguities of the terminal mode interface. For example, by using host mode, KaWin can present the operator with a coherent display of dozens of concurrent packet connections, while two or more such connections can be very confusing in terminal mode.

TNC (Terminal Node Controller)

An intelligent controller with one or more imbedded modems. Provides link layer protocol management (usually AX.25) for packet radio communication. "All-mode" TNCs, like the Kantronics KAM, support additional digital communications modes, including CW, RTTY, ASCII, Amtor, Pactor and G-tor.

Stan Huntting, KFØIA

Stan Huntting is the author of KaWin. Stan has been teaching computers new tricks since the mid-sixties, and began his amateur radio career a decade earlier - first licensed as W6ODV in 1957. The potent signal of KFØIA emanates from Boulder, CO.

Stan can be reached by email or fax, unless, of course, you are rare DX - in which case, please look for KFØIA in your next pile-up!

73 es gl de KFØIA,   Igottago   ..

QSL to:
Stan Huntting, KFØIA
4655 Pleasant Ridge Rd.
Boulder, CO 80301
Fax: 303 444 2314

The KaWin Beta Test Team

The author and users of KaWin owe a deep debt of gratitude to the capable and generous radio amateurs of the KaWin Beta Test team who suffered through months of testing of immature code and contributed their inspiration and criticism to shape the KaWin you use today. Thanks especially to...

KE6DND   Dahn Le
K2WK   Walt Kornienko
WK5M   Karl Medcalf
KT4FI   Dennis Mobley

KaWin

KaWin provides host mode communications support for users of Kantronics® TNCs in Microsoft® Windows. KaWin and KaWin Help are Copyright © 1995 by Stan Huntting.

Kantronics

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Kantronics is a manufacturer of TNCs that are compatible with KaWin.

KaWin is NOT a product of Kantronics. Stan Huntting, the author of KaWin, is NOT affiliated with Kantronics.

Context

A context is a source of received text, and for many contexts, also a destination to send text to.There is a **connected context** for each packet or arq-mode connection or former connection, a **command context** for each TNC, a **monitor context** for each port of each TNC, a **non-packet context** for each KAM TNC, and a one **statistics context**.

Each context is identified on its context selection tab. The **current context** is the context that is visible in the receive and send windows.

Connected contexts are not destroyed when the connection ends. Instead they are retained until explicitly purged. A later connect with the same call-sign will reclaim the context of the previous connection and append the new text following the old.

COM Ports and IRQs

Note that the Windows Control Panel default IRQ setting for ports COM3 and COM4 conflict with those for COM1 and COM2. You cannot communicate successfully without a unique IRQ for each port that is in simultaneous use. KaWin will not help you resolve any such conflicts. In addition to IRQs 4 and 3, IRQs 5 and 7 and sometimes IRQ 2 are available. Most serial port hardware can be configured to at least some of these. IRQs 5 and 7 are usually documented as being used by the parallel ports. Current versions of MSDOS and Windows do not use these IRQs to communicate with the parallel ports and they can usually be used successfully on COM3 and COM4. In any case, your hardware settings for COMx, Base I/O Port Address, and IRQ must all agree with the software settings in the Ports applet in the Windows Control Panel application in order for KaWin to communicate successfully with your TNC(s).

KaWin Files

Distribution Files.

Required files:
KAWIN.EXE   the KaWin program
KAWIN.HLP   this help file
KAWINPRN.DLL   required component of KaWin
KAWIN3D.VBX   "
KAWINCOM.VBX   "
KAWINSPN.VBX   "
KAWINVS.VBX   "
VHFDEF.QKY   default quick key set - modify but don't delete
HFDEF.QKY   default quick key set - modify but don't delete
QUICKCON.INI   sample quick connects file - modify but don't delete

Information and sample files:
README.WRI   pre-installation notes (Windows Write format)
KAWIN.TNC   recommended TNC settings
CLUSTER.QKY   sample quick key set for use with DX clusters
CW.QKY   sample quick keys set for CW
STATION.BRG   sample brag file
CW.CQ   sample CQ files
FEC.CQ   "
FECDX.CQ   "
RTTY.CQ   "
RTTYDX.CQ   "
SCHED.CQ   "
FILE_ID.DIZ   brief description for BBS sysops
SQUAWKxx.WRI   if present, describes recent program changes.

Other Files KaWin Uses.
VBRUN300.DLL   also **required**, available from the KaWin Home Page
HAMCALL.DLL   required for optional support of the Buckmaster HamCall callsign DB.
LGACCSS1.DLL   required for optional support of the Radio Amateur Callbook callsign
                   DB.
KAWIN.INI   created and maintained by KaWin in the KaWin home directory - stores
                   your configuration options
AMTOR.WAV   sound samples used by KAWIN.HLP - optional
AMTORFEC.WAV   "
GTOR.WAV   "
PACTOR.WAV   "
PTORFEC.WAV   "
RTTY.WAV   "

Macros

The available macros are:

\b Insert the contents of the Windows Clipboard.

\c Insert MYCALL call sign From TNC MYCALL parameter.

\d Insert system date using your Windows control panel setting for "long system date format".

\i Request, and then insert, operator input.

\m Insert current quick message variable. See Quick.

\n Insert target op's name variable. See Quick.

\q Insert target op's QTH variable. See Quick.

\s Insert target op's call sign variable. See HF Mode/Set Call Sign.

\t Insert system time in 2359 format. From your computer system's clock.

\u Insert UTC date in 1.Jan.99 format. See UTC - System Time Difference.

\w Insert current WX variable. See Quick.

\z Insert UTC time in 2359 utc format. See UTC - System Time Difference.

Each of the preceding macros may also be entered as an **uppercase** character, which will force all resulting text to be output in uppercase.

The following macros are also case sensitive, but each in a special way.

\l Insert your station's six-character locator grid (AAnnaa). See Option/My QTH.

\L Insert your station's four-character locator grid (AAnn). See Option/My QTH.

\p Insert your station's geographic position coordinates in the conventional form: DD.ddddN DDD.ddddW. See Option/My QTH.

\P Insert your station's geographic position coordinates in the form used by position reporting systems: DDMM.mmN/DDDMM.mmW. See Option/My QTH.

The following macros are NOT case sensitive.

\aID Insert the computed result of the most recent sample of analog monitor line ID, where ID is the Tnc number (1 - 4) followed by the analog line number (0 - 7). Note: this is a three-character macro. See Option/Analong Monitor.

\e Go to receive when buffer is empty if in un-connected HF mode, or change-over to IRS when buffer is empty if in a connected ARQ mode. See HF Mode/Transmit & Receive.

\g <ctrl-g> (bell). Sends a "Beep".

\r Insert the carriage-return character.

\x Begin transmitting if in an un-connected HF mode. See HF Mode/Transmit & Receive.

\# Insert an incrementing QSO number. See Quick Key Reset QSO Number.

\& Insert current QSO number without incrementing. See Quick Key Reset QSO Number.

\\ Insert a single "\" char (backslash) in place of this double "\\".

Used in Quick Key definitions and CQ and Brag files, these codes expand into their defined values as the text is sent to the TNC. Macros are always two characters in length, the first character is always the "\", or backslash, character. The second character, from the table above, defines the unique macro expansion that you wish to insert into your text.

Continue browsing this help file.

Selecting Text

KaWin conforms to Windows standards for selecting blocks of text. Text in the receive or send window of any context may be selected by dragging over the desired block of text while holding down the left mouse button, or by move the cursor over the desired block of text with the arrow, pageup/down, home or end keys while either shift key is held down.

KaWin FAX:

303 444 2314

KaWin email Address:

stan@mutadv.com

KaWin Home Page

The latest version of KaWin is always available to be downloaded from the Internet at the KaWin Home Page.

KaWin Home Page: http://www.mutadv.com/kawin/

Connect Path

A connect path tells KaWin who to connect to and how to get there. Here are some examples:

kf0ia
*   In the simplest case the connect path is just the call sign of the station you wish to connect to.

kf0ia-3
 * Many stations operate with multiple packet identities and these are differentiated by adding an SSID (Secondary Station IDentifier) as a suffix to the call sign. An SSID consists of a hyphen and a number from 1 to 15.

nglenn|x bldr|c kf0ia
*   A connect path that includes one or more pipe "|" characters will be handled sequentially. The first element of the path (in this case nglenn) is the call sign (or alias) of the first station to connect to. Nglenn is a KaNode in Northglenn, CO, and accepts the node commands documented in your Kantronics reference manual.Once the initial connect to nglenn is established, the   command "x bldr" is issued to the nglenn KaNode, causing nglenn to link us to bldr, another KaNode, in Boulder, CO. The command "c kf0ia" commands bldr to connect us to kf0ia and the path is complete. As KaWin performs this process you will see contexts for each station in the path be created, connect and disconnect as the link is passed along the path.

Quick Keys

16 shortcut keys, <ctrl-F2> through <ctrl-F9>, and <shift-ctrl-F2> through <shift-ctrl-F9> are reserved as quick keys for assignment by you to strings of text and macros. Each of these 16 keys may be defined uniquely in each of 16 different Quick Key definition files for a total of 256 Quick Key shortcuts. To define a new quick key set, or edit existing quick key definitions, use the Option/QuickKeyOrganizer menu.

Use quick keys to make your operating style quicker. But, as with brag files, avoid being too impersonal or wordy. Use the 16 possible quick key sets to tailor the quick keys to your different operating modes. Quick key messages for DX operating on CW should be very different from those used in Pactor rag chewing, and every contest has its own special requirements for fast exchanges.

Mouse Shortcuts

Right-click on a context selection tab to open a customized version of the Window menu.

Left-click on a call sign, a message number, a name or QTH, or some text to copy or find in the Receive Window, or the Watch Window, and a pop-up menu with a rich selection of customized commands will appear.

Double-click on the watch window box in the Status Bar will close the watch window.

Left-Click on an on-the-air box in the Status Bar brings up the HF Mode Switch menu.

Left-Click on the Analog Monitor box in the Status Bar to rotate through the available TNCs.

Left-Click on the date/time in the Status Bar to toggle between UTC and local time.

Binary File Transfer Protocols

Yapp

The Yapp file transfer protocol was originally defined by Jeff Jacobsen, WA7MBL, more than a decade ago, and has been widely adopted by many packet radio applications since. Over the years a number of extensions to the original Yapp protocol have been introduced by various authors. The implementation of Yapp in KaWin is based on that used by the F6FBB packet BBS program, with extensions collected and published as notes by Marco Savegnago, IW3FQG. The KaWin implementation includes all features referenced in Marco's notes, and is a full client and server implementation.

Gold

The Gold file transfer protocol, used by KaWin and other programs for binary file transfer in packet mode, is a variant of the Xmodem protocol. It is most useful for binary files - any file that contains data that is not limited to the printable ASCII character set. - that you wish to have transferred intact. Executable program files and compressed files (ZIP files, etc.) are good candidates for these commands. Gold file transfers require that both connected stations be running programs that are compatible with the Gold protocol. Besides KaWin, compatible programs include KaGold, PkGold, and other programs from Interflex Systems Corp.

The following description of the file transfer protocol is intended to satisfy the requirements that US amateurs not communicate in a secret code. As should be apparent, the intent of this protocol is data integrity, channel throughput and transfer restartability - not encryption. Users are encouraged to use a file compression utility on large files before transferring them via packet radio. Such techniques serve to reduce the time required for a file transfer and increase channel availability. But, be sure to use a widely available utility such as PkZip, and, for compliance with US regulations, DO NOT use the encryption option.

Each data frame of a Gold protocol file transfer is exactly 132 characters in length. the characters may be any of the 256 possible 8-bit characters used by AX.25 packets. the first character of a data packet is always Hex 01, followed by a single character that is interpreted as an 8-bit integer frame number, starting with frame number one and rolling from 255 back to one again as often as required. The next 128 characters in each data frame are consecutive 128 character segments of data from the file being transferred. The final two characters of the 132 character data frame contain a that is a 16-bit integer, polynomial calculation, used as the file control sequence for detecting, but not correcting, data transmission errors. The polynomial used is similar to that used by Xmodem.

Other protocol frames of from one to three characters in length are used to signal errors and acknowledge various events. These protocol frames are identified by their initial character of Hex 4, Hex 6 or Hex 15 and may also include the 16-bit integer frame number of the frame in question. Special data frames which may be seen are used to communicate the file name of the file being requested or sent or request the other station's directory of files, and are identified by an initial Hex 27 in the data portion of the frame.

KaWin/HF

The file transfer protocol used by KaWin for binary file transfers in the HF arq modes of G-tor and Pactor takes advantage of the inherent error correction of these modes. The protocol consists of a sequence of unambiguous commands for passing and acknowledging the filename and synchronizing sending and receiving stations, the file content, transmitted in the clear as transparent, 8-bit data, and a digest of the total file content as a signature, to verify the error-free transfer of the file.

The features of the three protocols are summarized in the following table:

Feature	KaWin/HF	Yapp	Gold

Applicable modes	G-tor/Pactor	Packet	Packet
Full binary transparency	yes	yes	yes
Robust error detection	yes	yes	yes
Auto-start remote upload/download	yes	yes	yes
Auto-start remote directory request	yes	no	yes
Multiple file selection on File Send	yes	yes	no
Wildcards on File Get	yes	yes	no
Restartable after a broken transfer	yes	yes	yes
Verifies original file date/time on restarts	yes	yes	no
Keyboard chat during transfer	no	no	yes

Continue browsing this help file.

Focus

Focus refers to the screen object that will accept the next keyboard action. If a cursor is visible, it will be in the object with the focus. Within KaWin, only the send window, the receive window, the context selection tabs (if no send window is visible) and dialog boxes can receive the focus. The <Tab> key will move the focus to the next screen object that can receive the focus, and the <Esc> key will return the focus to the default object. The default object is the send window of the current context if a send window is visible, or the context selection tabs if no send window exists.

Updating Windows 3.10 to 3.11

Special thanks to KaWin user Bill Santelmann, N1AU for the following information. This is a rapidly changing world and neither Bill nor the author can assure you that this information is still current. Here is the text of Bill's email on the subject:

The file needed to upgrade Windows 3.10 to 3.11 is called WW0981.EXE and it is available from the Microsoft Web page:

http://www.microsoft.com/

Click on "Free Downloads", and then on "Support Online Free Software Library" which brings you to the web address:

http://www.microsoft.com/KB/SOFTLIB

... which I suppose you could go to directly. You will see an "Explore" selection box with a down arrow which will open a list of topics. Select: "Windows 3.x and Windows for Workgroups". In the list that follows, select the first item "Application Notes". This brings up a list which includes near the center:

"Windows 3.11 Refresh Files"

"WW0981.EXE.........599270 bytes"

Download WW0981.EXE. Place it in its own directory, and run WW0981. It generates 8 new files for the WINDOWS\SYSTEM directory, along with a readme file with complete instructions. Basically, one just replaces these 8 files and you have Windows 3.11.

Frequently Asked Questions (FAQ)

This topic was designed for presentation over the World Wide Web and is available in updated form on the KaWin Home Page. It is included here for your convenience.

Q: Will KaWin work with my PK232? (Or, Pac-Comm? Or, MFJ? Or...?)
A: No. KaWin supports only TNCs and controllers that use the Kantronics Host Mode interface.

Q: Why doesn't KaWin support Kam firmware versions prior to 7.0?
A: The Kantronics Host Mode protocol took a giant stride forward in version 7.0 with the introduction of a new HF status command. KaWin's superior HF performance is owed in part to its reliance on that command.

Q: Will KaWin run with my Windows 3.1 system?
A: Not with the original Windows 3.1 serial port drivers installed. Those drivers were so bad they inspired a boom industry in replacement serial drivers. MS Windows For Work Groups (Wfwg) 3.11 was the first release of MS Windows to implement really bomb-proof serial port drivers. KaWin is very reliable with Windows95 or Windows 3.11 and is reported to perform well with Windows NT and OS/2. Because those drivers are so reliable, KaWin is implemented as a fully compliant, cooperative multi-tasking, Windows program using only standard Windows serial port support. Windows 3.11 is Windows 3.1 with the updated drivers from Wfwg 3.11, and is reported to run fine. Each release of KaWin is thoroughly tested and is supported in Windows95 and Wfwg 3.11 environments.

Q: I see frequent announcements of KaWin updates. Will it cost a fortune to keep my registration up-to-date?
A: You're right about the frequent updates. KaWin users have a wealth of great ideas for enhancements, and most of them find their way into the program over time, but to date, no user has ever been charged for any of these updates. The author reserves the right to charge for major updates, but has thus far been satisfied with an expanding, happy, user base.

Q: How do I get a printed KaWin user manual?
A: Sorry, but there is no printed manual for KaWin. The program is being updated at such a rate that it is not practical to publish an up-to-date manual. So, in keeping with the trend in Windows software, the documentation effort is put into the KaWin Help file and this FAQ, instead.

Q: I have a MARS license. Do I have to pay the registration fee twice?
A: No, all of your own calls, including MARS and DX license calls, are covered by a single registration fee. See Help/Register for details.

Q: OK, now I have two calls and two KaWin registration IDs, how do I gracefully switch between my ham and MARS calls?
A: Use the Option/Register command, to enter up to three KaWin Registration IDs. Then, use the Option/Identifiers command to synchronize all, or any subset, of your TNC's identification parameters to the new call, each time you switch personas.

Q: I just got my new vanity call. What do I have to do to get a new KaWin Registration ID.
A: The published policy (see Help/Register for details) provides for no-charge callsign changes when the Change of Callsign Application is submitted along with the appropriate documentation. Expedited handling is available if both the old and new callsigns are

referenced in the on-line database on the . In these cases, just send your request, via email with the old and new callsigns, to .

Q: Does KaWin support "Hot Keys" or "Macros"?

A: It sure does. In KaWin they're called Quick Keys, and no one yet has complained that there aren't enough of them. There are 16 Quick Key definitions in a set, and as many sets as you like! They're easy to define too, using the dialog of the Option/QuickKeyOrganizer command. You can even clone or rearrange a Quick Key Set with drag and drop mouse actions. Custom Quick Key Sets may be associated with each mode and station.

Q: How do I switch ports and data streams in KaWin?

A: You don't. KaWin does it for you. Rather than thinking in terms of TNCs, ports and data streams, try to think in terms of contexts associated with radios. Incoming packet connects and ARQ links are obviously associated with a given radio. That's how they reach your TNC. KaWin creates a new context and a context selection tab for each new connect or link. KaWin keeps track of which TNC, port (i.e., radio) and data stream each context is associated with. When you select a context, KaWin directs your actions to the appropriate TNC, port and stream. You initiate a connect or ARQ link through a specific TNC and port by selecting the appropriate radio in the Connect/Connect dialog. This will be a lot clearer if you take a moment to assign meaningful names to each of your radios (e.g., "IC27", "TS950", "145.01", etc.) using the Option/TNCs&Radios dialog.

Q: What's the significance of the color change in the box near the top of my KaWin screen labeled, "HF1: Tor Standby 2125/2295"?

A: That's the HF on-the-air box, a component of the KaWin Status Bar, which should suggest what's happening when it turns bright red: your HF transmitter is on-the-air. When the Kam has received the command to go to receive, or change over to IRS in the linked modes, the box becomes half red and half cyan. When the Kam unkeys the transmitter the box is fully cyan. The box is fully described in the KaWin help file.

Q: Why do the Context Selection Tabs change color from time to time?

A: The normal color of each Context Selection Tab indicates the category of context it represents, such as VHF Packet connect (light yellow) or HF (cyan). When new data arrives in a context that is neither the current context of the Receive Window or the Watch Window, KaWin will alert you by changing the color of the tab to a brighter color.

Q: After I've made a lot of contacts, a lot of the screen is used up by Context Selection Tabs. How can I recover this space?

A: There are two issues here: 1) packing more Context Selection Tabs into each row, and 2) "Purging" the Context Selection Tabs for QSOs that you are through with. The first is controlled by the "Context Tab Width" parameter on the Option/General dialog. Using a value smaller than default 2200 will result in narrower tabs and at some point another tab will squeeze in. Purging Context Selection Tabs is accomplished with the Connect/PurgeContext command.

Q: I can monitor VHF Packet just fine, but when I try to connect, my TNC won't transmit. Why?

A: Assuming you've checked all the obvious things, the usual gremlin is your TNCs "CD" command. This command tells the TNC how to determine when the channel is available. The default value of "INTERNAL" is a throwback that requires that you set your receiver's squelch to open only when a packet signal is present. Current Kantronics TNCs have a much smarter capability that is enabled by setting the TNC command, CD SOFTWARE, and setting your receiver's squelch to fully open.

Q: I can link to other stations in Pactor but they can't link to me. Why?

A: The first thing to check is the MYPTCALL parameter in your Kam. While you're checking that you might want to check to see that all of the 18 identifiers stored in your Kam correctly reflect your callsign. The KaWin command Option/Identifiers provides a one-stop dialog that will synchronize all, or any subset, to your call. This is also a handy way to switch calls in a multi-ham household.

Q: After I drop the link in any Tor-mode (or, abort a link attempt), I can no longer monitor what is happening on the channel until I go back to the mode switch and issue the Pactor command again. Why?

A: Whenever KaWin can identify a context with a single callsign it will attempt to preserve the record of that context after the conclusion of the contact. With a Tor-mode link (G-Tor, Pactor, Amtor) that happens when the link is dropped, or an attempt to link is aborted. At that point the newly disconnected context remains the current context, while monitored data is sent to the general "HF" context. When you use the HFMode/ModeSwitch command (or any of its shortcuts) KaWin automatically makes "HF" context the current context, and presto! The monitored data is front and center as the current context. Also remember, KaWin will switch the HF mode for you whenever the link is dropped, according to the "Mode on ARQ disconnect" parameter for each applicable HF mode in the HFMode/HFPreferences dialog. If the selected disconnect mode is Tor-standby, monitoring is disabled until the mode is switched to a monitoring enabled mode.

Q: With IRQ4 assigned to my modem and IRQ3 assigned to my mouse, where do I find an IRQ for my TNC?

A: The first places to look for a spare IRQ are IRQ7 and IRQ5. Your system documentation will say that these are reserved for LPT1: and LPT2:, the parallel printer ports. However, DOS and Windows printer drivers have never made use of these IRQs. Thus, they are available on most systems. You may need to disable the IRQ selection in the parallel port hardware. This is usually just a jumper. Check the documentation for your motherboard or I/O card. There are also several IRQs in the IRQ9 - IRQ15 range that are seldom assigned, but most serial port cards only offer IRQs in the range IRQ2 - IRQ7. Look for special "16-bit" serial cards that provide as many as four serial ports and many more IRQs, they're available.

Q: Why are there so many different ways to do anything in KaWin?

A: Because there are so many different preferences among KaWin users. Actually, this is characteristic of programs that are fully compliant with both the conventions and the spirit of Windows application design. KaWin is an event driven program. Many of those events originate in your TNC and are unique to the RF Data Communications application, but you, the user, are also an important source of events. Windows programs, and KaWin in particular, give you the opportunity to use the interface style that you are most comfortable with, and to change that preference at will. Everyone knows that Windows programs are "mouse friendly", but fully compliant Windows programs are also "keyboard friendly". To that end, KaWin makes extensive use of keyboard accelerators (those underscored characters), shortcut keys (noted to the right of many commands in the various menus), and the Windows navigation keys (the four arrow keys, <Home>, <End>, etc.) as alternatives to mouse actions for those who prefer to keep their fingers on the keyboard.

Q: Where can I find an explanation for the information in the "Statistics" context?

A: The Statistics context is a leftover from the Beta test phase that remains because it is occasionally useful in troubleshooting system problems. The first line is a program startup time stamp. On the next line, the "Screen paint test" shows the result of a mini-

benchmark that is used to calibrate system timing variables. The value is the time in milliseconds to do the little "dance" in the KaWin Status Bar during program startup. Then, each time that the Statistics context is referenced a new multi-line entry is added with the current values of the event counters associated with each open TNC. Four of these counts, TNC Delay, Send Events, Receive Events and Parse Loops, are always present, with others appearing only when they are non-zero. TNC Delay is a computed variable, based largely on port data rate. Send Events and Receive Events are counts of the calls from the Windows serial port driver to service data in and out of the TNC. Parse Loops occur with Receive Events but can also occur when KaWin detects data waiting that Windows has not yet notified KaWin about. A large Parse Loops/Receive Events ratio can indicate a potential for data overrun errors from an overloaded system. The other reported events correlate directly to signals and error conditions defined for serial ports as reported by the Windows API.

Q: Why does the HF Context flicker while receiving CW, RTTY, or FEC?

A: The Kantronics Host Mode protocol does a great job of eliminating the ambiguity of the old terminal interface, but it exacts a price in added overhead. That added overhead is most noticeable in these HF modes, where each arriving character is wrapped in five bytes of overhead. The processing of that overhead significantly slows down the screen update on slower systems, and particularly systems with slow graphics adapters.

Q: I upgraded to a much faster computer, and KaWin really flies now, but it takes just as long to load as ever. Why?

A: Congratulations on the upgrade, KaWin loves a fast computer. But, it does nothing to speed up your TNC, and that's what KaWin is waiting on during most of the program startup. KaWin and your TNC have a lot to discuss, and this is really compounded if you insist on leaving your TNC in terminal mode. To speed up both the startup and closing times check the HOST MODE CLOSE box in the Option/TNCs&Radios dialog.

Q: Why do I have to set FSKINV ON to send RTTY correctly, while Packet is fine with FSKINV OFF?

A: When you use the "FSK Out" signal from your Kam to key your transceiver, the Kam assumes the unkeyed state (line is floating) to indicate the Mark frequency, and the keyed state (the Kam pulls the line to ground potential) to indicate the Space frequency. The FSKINV ON accommodates transceivers that expect the opposite. While the polarity of shift is vital to most FSK communications modes, Packet, Pactor, and G-TOR use "Non-Return-to-Zero" signaling protocols that are not sensitive to polarity.

Q: Every time I turn my back, KaWin has changed my CWTONE. Why?

A: KaWin prefers that you give it control over CWTONE. This doesn't mean that you can't choose your own CWTONE frequency, just do it through the HFMode/HFPreferences command dialog. Here's why KaWin needs to manipulate CWTONE: In the Tor ARQ modes, the Kam will automatically send a CW ID at regular intervals using "tone CW". But, instead of using the current MARK tone frequency, it uses the setting of CWTONE. Now, if your MARK tone is 2125 and your CWTONE is 800, your CWID frequency is 1.325 kHz offset from your FSK mark carrier frequency! KaWin shifts the CWTONE to as close to your MARK frequency as possible during ARQ operation, and shifts it back to your preferred CW tone frequency when you switch into CW mode, and when you exit KaWin. As long as you use the KaWin HF Preferences setting KaWin can pull this off without a hitch, but if you dink with the CWTONE on your own, KaWin is going to be fighting with you.

Q: Users on my KaNode are dropped every time I exit KaWin. Why?

A: Because you are not allowing KaWin to close your TNC in Host Mode. Every switch between Host Mode and Terminal Mode involves a soft reset of the TNC, which in turn

drops all current connects. KaWin can restore most of those connects, but not KaNode connects. The solution is to check the HOST MODE CLOSE box in the Option/TNCs&Radios dialog.

Q: Just as I really get going in a good RTTY rag chew my Kam loses the will to transmit! Why?

A: If the symptoms include KaWin and your Kam appearing to still be transmitting (red "XMIT" light illuminated), but your transceiver dropping back to receive, the culprit is the Kam's Watchdog Timer (and your long-winded stories). It is controlled by jumper K4 in your Kam, but be sure to read what the manual has to say before changing it.

Q: What can I do about C1001 errors? (Also, C1004, C1006, C1008, C1009, F1, F2)

A: Each of these errors is reporting some type of disaster befalling the data arriving from the TNC. The four vulnerable points along the path are:
1) line driver hardware in the TNC-sensitive to low or noisy 12 vdc supply voltage to the TNC,
2) serial cable between the TNC and computer-sensitive to noise, and especially RFI,
3) serial port hardware in the computer: possible, but unlikely, source of trouble with older unbuffered UARTs,
4) serial port driver software in Windows: chronic with Windows 3.1 and can still be a problem with later drivers if anything interferes with smooth multitasking.
Troubleshooting tips: check your 12 vdc supply first; older Kams have a known 12 vdc regulation problem associated with aging electrolytic caps; RFI problems on either the serial cable or the 12 vdc supply line can be reduced with double-shielded cables and ferrite beads but are best solved by correcting the problems with your antenna; and programs that hog the system or take exclusive control are like neighbors that spit in your well, but Windows95 handles them nicely (and slow UARTs, too).

Q: OK, I love KaWin. Now, how do I turn off this awful nag meter?

A: Funny you should ask, because the   is waiting just around the corner. Registration is quick and easy, and your KaWin Registration ID will arrive promptly by email to save your sanity. Use the Option/Register command, to enter the ID. Your ID is a computed encryption of your amateur radio callsign. As long as the callsign in your TNC corresponds to your KaWin Registration ID the nag meter and nag messages will remain suppressed.

This FAQ is the product of the KaWin user community. Many thanks to all who have contributed. You may contribute your own questions, request further clarification or comment on the answers presented by contacting the author, , KFØIA, by email.

Gloria Medcalf

Gloria, KA5ZTX, is the author of **"What is your TNC doing"**, the best and most concise treatment of the subject in print, as well as the TOR Modes topic in this help file. Gloria is also the webmaster at...

http://prairie.lakes.com/~medcalf/ztx/

...where she authors and maintains a rich and growing knowledgebase of RF data communications topics. Visit Gloria's web page soon and return often - it's a growth experience!

"What is your TNC doing", ©1993 , is published by **zm x**pressions, Lawrence KS. Visit Gloria's web page to find the dealer nearest you.