TR LOGGING PROGRAM

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TABLE OF CONTENTS

1.0 GENERAL DESCRIPTION

TR Log is a high performance DOS software package which can be used for most any contest, DX-pedition or day-to-day operation. Some of the main features include:

- Unsurpassed flexibility lets you tailor the program to your personal taste.
- Over 50 contests supported by the program - others can be added easily.
- 50K QSO capacity without using extended or expanded memory.
- Simple operation with intelligent ENTER key - knows what you want to do.
- Great sounding CW from 1 to 99 WPM - or create custom characters for your own sound.
- Paddle input lets the program act as your keyer. Paddle action aborts computer CW message.
- Support for PTT with programmable delay assures antenna relays are cold switched.
- Expanded .DTA database format supports names, QTH, grid, check and other information.
- Automatic super check partial and possible call features.
- DVP and DVK programmable voice memory support (including W9XT card).
- Band map with color coded aging information - a must for search and pounce.
- Packet interface with automatic insertion of spots into band map.
- Provisions for responding for tailending stations on CW.
- Dynamic speed and weight control during CW messages.
- Support for working rover stations in VHF/UHF contests.
- All amateur bands from 160 to Light supported.
- Beam headings and sunrise/sunset times displayed for countries as you work them.
- WAE QTC support for both inside and outside Europe.
- POST program used to create summary sheets, maintain .DTA database, reports and QSL labels.
- Exchange memory remembers exchange information from band to band.
- Radio interface for Kenwood, Yaesu, Icom, Japan Radio and Ten-Tec.
- Multi-multi network with error detection and automatic retries.
- Integrated two radio support allows you to be in two places at once - a proven winner.
- Use of industry standard CTY.DAT file for country and beam heading information.
- Powerful domestic templates allow easy updates and addition of new contests.
- Programmable remaining countries list gives you the picture at a glance.
- User programmable window colors.
- Log files stored in easy to edit ASCII format.
- Internet users group gives quick response to technical support questions.
- Free updates for one year after purchase via 24 hour BBS or internet.

Through the use of a configuration file (LOGCFG.DAT), the operation of the program can be tailored to meet your specific requirements. Most of the operating parameters used in the program can be modified using the configuration file. Appendix A lists all of the parameters that may be programmed. Many of them can be changed while the program is running using the handy Control-J command.

A database allows you to remember the name, QTH and other information for stations you have worked before. When the name feature is enabled on CW, the program says hello to people as you work them. It even will send GM, GA, GE or other appropriate greeting depending on the country of the station.

Much care has been taken to create an efficient way to search and pounce on CW. When you are in the search and pounce mode, typing a call and then pressing RETURN will either send your call (if it is a new station) or tell you it is a dupe. Pressing RETURN after copying the exchange will send your exchange and log the contact. Other useful tools for efficient search and pounce operation include a color coded band map and duplicate callsigns are highlighted when using the partial call or super check partial features.

The program is also efficient when running stations. A contact can be completed by typing a call, pressing RETURN, waiting for the station to send their exchange (i.e., 599 and zone which is already automatically entered for you), and then pressing RETURN to log the contact and send a QSL message. That is just 6 keystrokes for a 4 letter call. You can even eliminate having to press the first RETURN. The program can start sending the call after you have entered a few characters (programmable number) and start the exchange when it has caught up to you. See AUTO START SEND CHARACTER COUNT and AUTO CALL TERMINATE for details. You can also use a footswitch instead of the ENTER key.

A band map can be displayed for stations you have recently performed dupe checks. The display shows the calls sorted in frequency for the band you are active on. They are color coded to show the time that has elapsed since they were spotted. If your VFO is tuned to the frequency of a spot, it will blink. Spots received via the packet interface will also be shown on the band map.

You can quickly respond to tailenders using the tail end key and you have your choice of two different QSL messages that can be sent while the contact is being logged. CW is sent while disk operations are being performed.

When working a station, you will automatically be shown which bands you need a QSO or multiplier from the station. This is very useful when you might want to move the station to other bands. You also are continuously shown a list of missing multipliers for the band/mode you are using. For domestic multipliers, a complete list of remaining multipliers is shown. When using country multipliers, a list of 90+ programmable countries can be shown. Countries not displayed can be checked by doing a dupe check and viewing the multiplier information window. You can alternate between displaying remaining zones, domestic multipliers or countries with a single keystroke (Alt-G).

As you enter a callsign, partial calls from the dupesheet will be displayed automatically. After entering the call, a list of other stations from your dupesheet and name database that are similar (unique minus ones) is displayed. These calls may be easily selected if you discover one of them is the correct call.

Exchange parameters such as domestic QTH, age, power, name, ITU Society and field day class are stored and recalled automatically when working the station on another band. Both ITU and CQ zones are automatically entered as well.

The program has a simulator mode that will allow you to work simulated stations in some of the contests supported by the program. The simulator pulls callsigns from the .DTA database, so the callsigns are "real". For more information on the simulator, see chapter 5.5.

The POST.EXE utility package has a number of functions that make log processing easy. It can recheck your log for dupes, verify multipliers, accumulate QSO points and multiplier totals, print dupesheets, generate band and mode logs, generate a disk file for the ARRL, create a rate sheet or QSO distribution by continent, edit your log, generate QSL labels three different ways, edit the .DTA database, and other similar functions. See chapter 6.0 for more details.

2.0 GETTING STARTED

This chapter is for those who just received their copy of the TR Logging Program and want to see it work with a minimum of manual reading. If you were to read the whole manual before trying the program, you might think the program is hard to use because of all the options available.

To get started, insert the disk you into your computer, log onto it (i.e., type A: <return>) and run the INSTALL program. After the files have been transferred to your hard disk, you can start the logging program by typing TR.

When you first start the program, it will ask you some questions to help configure it for a specific contest. A good first choice is the CQ WW since it is a very straight forward example. The program will ask you what display mode to use, if you want to use the simulator, if you want to configure any of the ports for sending CW or interfacing to a radio, packet or a network.

After you have answered the questions, the program will display the normal operating screen. You will see lots of information displayed at once. The program was designed to put the information in front of you as you need it, as opposed to requiring you to press a key to get to it.

Your cursor will be in the *Call Window* and you will be in the *CQ Mode*. Use Alt-B to select the desired band and Alt-M to select the desired mode. For your first QSO, just use the ENTER key. Press ENTER with a blank call window to call CQ if you are on CW. This sends the message programmed into CQ MEMORY F1. You can view and edit this message with the Alt-P command. Press Alt-P and select C for the CQ function key memories.

If a station has answered your CQ, type in his callsign and then press ENTER. The program will send his callsign, followed by the CQ EXCHANGE. The CQ EXCHANGE can be viewed with the Alt-P command by pressing Alt-P and O for the "other" messages menu. After you have typed any received information into the *Exchange Window*, press ENTER again to log the contact and send the QSL MESSAGE. This message can also be viewed by pressing Alt-P and then O for the "other" message menu.

The other mode of operation is the *Search and Pounce* mode. To enter this mode from the CQ Mode, press the TAB key. The exchange window will appear when you do this and, if you are using a color monitor, it will be a different color than it is when you are in the CQ mode. Picture yourself scanning the band and you find a station you want to call. You type in the callsign and then press RETURN. If the station is not a dupe, your callsign will be sent. Your cursor will move to the exchange window and you can type in the exchange received. When it is time to send your exchange, press RETURN again. The program will send the S&P EXCHANGE and log the contact. You can view the S&P EXCHANGE using the Alt-P command under the O for "other" messages menu.

To exit from the Search and Pounce mode, press ESCAPE or SHIFT-TAB. The ESCAPE key has been tasked with doing the thing you would expect most whenever it is pressed. With a couple of exceptions, if the program is sending a CW or DVP message, pressing ESCAPE once will instantly abort the message and nothing else. The exceptions are if you are doing some else (like entering a new CW message or setting the alarm clock) or when using the simulator.

If you use the simulator, beware that the program frequently goes into a loop waiting for a CW message to end and hang the keyboard. However, you will find this does not happen in a real contest.

The Alt-P command gives you the ability to program both CW or Phone memories while the program is running. When you change a message, an entry will be appended to your LOGCFG.DAT file. This file has simple commands in it to tell the program how to configure itself when starting up - including how to initialize the CW messages.

Each of the function keys can be programmed to hold a CW message. There are two sets of memories, one for the CQ Mode (Alt-P then press C) and the other for the Search and Pounce or Exchange mode (Alt-P then press E). Over the years, it has been shown that the Search and Pounce messages are also useful in the middle of a CQ Mode QSO (i.e., whenever the exchange window is up).

Another set of CW memories are for the messages that are sent during the QSO process, including exchanges, QSL messages, and dupe messages. You can see a list of these by pressing Alt-P and select the O option.

Pressing Alt-H will show you a list of commands that can be executed while the program is running. You should review each of these. To get more information on a specific key, just press that key and a few paragraphs will be displayed explaining the function in more detail.

The Control-J command is very important as it allows you to control over a hundred of the operating parameters of the program while it is running. You can press Control-J to see what is there, and then ESCAPE to exit without changing anything. Use the arrow keys to move around the menu, or press the first letter of a parameter to jump to it. The ENTER key is used to change the selected parameter.

To exit the program, use the Alt-X command.

When you first started the TR program and answered the questions, the program saved the information in a file so it could be restarted without you answering all the questions again. This file is called LOGCFG.DAT and is a simple text file. You can edit it with a text editor (e.g. EDIT or NOTEPAD) or view it using the TYPE command. To learn more about the commands that can be put in the LOGCFG.DAT file, see section 4.0. The commands are also listed in alphabetical order in Appendix A.

Almost all the LOGCFG.DAT parameters have a default values, some of which are determined from the contest you have selected. This means you do not have to specify all of the parameters found in Appendix A to use the program. It is possible to use the program with only two entries in this file: the contest you want to operate and your callsign.

A simple LOGCFG.DAT file might look like this:

```
MY CALL = N6TR
CONTEST = CQ WW
DISPLAY MODE = COLOR
SIMULATOR ENABLE = TRUE
KEYER OUTPUT PORT = PARALLEL 1
PADDLE PORT = 1
```

This LOGCFG.DAT file would tell the program your call is N6TR, that you want to operate the CQ WW contest, that you are using a color monitor, that you want to use the contest simulator, that your CW interface is connected to parallel port 1 and that you have a paddle connected to parallel port 1.

The other program that comes with TR is POST. This program has many post contest functions you will want to use after the contest including summary sheets. See section 6.0 for an overview of its capabilities.

2.1 THE EASY WAY TO SET UP THE PROGRAM

If you followed the steps in section 2.0 to operate your first contest, you might find this section useful is setting the program up to operate your next contest.

The first thing that you need to do decide on a directory where you will keep your contest logs. In the following examples the actual directories as used by one of our power users are shown.

A sub-directory called "contests" is created off the log directory (where install puts the program files) and then sub directories off of "\log\contests" are created for each contest as you set up the program for them. You might have sub-directories named ss96cw, iaru96, sac96, cq95cw and ss96ssb. In each sub-directory, you can find all the files specific to that contest.

You do not need to have separate copies of the TR or POST programs in each of these directories. Having the directory where the program files are located in listed in your PATH statement will allow the program files to be executed regardless of which directory you are logged into.

Here are the steps one would make to set up for the 1997 CW Sweepstakes contest:

>From the C: prompt.

Type: CD \log\contests	(to enter the contests sub directory)
Type: MD ss97cw	(to create the new sub directory)
Type: CD ss97cw	(to enter the new sub directory)
Type: TR	(to start TR-Log)

At this point TR will ask you if you want to let it step you through the creation of a LOGCFG.DAT file - answer yes.

Answer the questions asking for your callsign, contest, CW port settings and serial port assignments. After you have answered the questions TR will start up.

After TR is running you are ready to operate most of the contests that TR supports.

Many changes can be made while the program is running with the Control-J menu. This is often easier than editing the LOGCFG.DAT file with a text editor. Some parameters you might be interested in changing include: CONFIRM EDIT CHANGES and AUTO DUPE ENABLE. You can jump ahead to specific entries by pressing the first letter of the parameter.

When you have made all your changes in Control-J menu, press Alt-G to save those changes to the LOGCFG.DAT file so they will be remembered if you restart the program. Exit the Control-J menu by pressing ESCAPE.

If you are operating a CW contest, the next step is to check the CW messages to make sure you are happy with them. Many contests have default messages which will work, but some contests require you to enter exchange information when sending exchanges which include your name, precedence, check, QTH and so on.

To examine the CW messages, use the Alt-P command. You will want to check out the CQ EXCHANGE, S&P EXCHANGE and QSL MESSAGE under the (O)ther menu, and the various CQ and EXCHANGE function messages you would like to use.

The final step is to exit the program to set up your rig interface, TNC interface and other things that can not be done from the Control-J menu or the startup screen. If you always have the same radio and TNC configuration, you can create a file that has all of this information in it and refer to it from the LOGCFG.DAT file with one line. This saves you from having to re-enter this information each contest. This is done with the command INPUT CONFIG FILE = [file name and path]. If you follow this process, you should end up with files similar to the ones shown in section 2.2.

You should work a few test QSOs to make sure the program is responding correctly before actually starting the contest. Just before the contest, exit the program and delete the RESTART.BIN, LOG.DAT and LOG.TMP files that were created during the set up. Now you are ready to type TR and operate the contest.

2.2 EXAMPLE LOGCFG.DAT AND INPUT CONFIG FILE

LOGCFG.DAT

MY CALL = WB5VZL
CONTEST = sweepstakes

INPUT CONFIG FILE = \LOG\WB5VZL.CFG ⇐ **Only line added with text editor. The rests were added when TR was started or with Control-J or Alt-P.**

DISPLAY MODE = COLOR
KEYER OUTPUT PORT = PARALLEL 1
PADDLE PORT = 1

The above lines (except INPUT CONFIG FILE) were generated by TR at startup.

AUTO DUPE ENABLE CQ = FALSE
CHECK LOG FILE SIZE = TRUE
CONFIRM EDIT CHANGES = FALSE
CW TONE = 0
FLOPPY FILE SAVE NAME = a:\logsave.dat
PADDLE MONITOR TONE = 320
TWO RADIO MODE = TRUE
WEIGHT = 1.05
SHOW SEARCH AND POUNCE = TRUE

The above set of lines were generated by using the Control-J command (use Alt-G to save all edits).

CQ EXCHANGE = # B WB5VZL 76 STX
REPEAT S&P EXCHANGE = # B WB5VZL 76 STX
S&P EXCHANGE = # B WB5VZL 76 STX
QUICK QSL MESSAGE= TU WB5VZL
REPEAT S&P EXCHANGE = # B WB5VZL 76 STX
QSL MESSAGE = 73 \ SS
QSO BEFORE MESSAGE = SRI QSO B4 73 \ SS
CQ MEMORY F1 = CQ^SS \ \ SS
CQ MEMORY F2 = CQ^SS CQ^SS CQ^SS \ \

The above set of lines were generated by using the Alt-P command.

Sample of the INPUT CONFIG FILE - WB5VZL.CFG - created with text editor

PADDLE PORT = 1
KEYER RADIO ONE OUTPUT PORT = PARALLEL 1
KEYER RADIO TWO OUTPUT PORT = PARALLEL 2

RADIO ONE CONTROL PORT = SERIAL 1
RADIO ONE BAUD RATE = 2400
RADIO ONE NAME = FT1000
RADIO ONE TYPE = FT1000

RADIO TWO CONTROL PORT = SERIAL 2
RADIO TWO BAUD RATE = 4800
RADIO TWO TYPE = TS940
RADIO TWO NAME = TS940

RADIO ONE BAND OUTPUT PORT = 1
RADIO TWO BAND OUTPUT PORT = 2

3.0 SYSTEM REQUIREMENTS

The program runs under MSDOS. It requires 512K of RAM - but 640K is recommended. Extended memory is not required. The program is compiled for use on 286 or newer processors. A hard disk is almost a necessity as updates are made to the log file after each contact. Most floppy disks are too slow to be used this way without slowing you down. The program can be used with either monochrome or color monitors. It is highly recommended that you exit Windows-95 and boot up in MS-DOS mode before running TR.

If you are having the computer send CW, you will need to interface either a serial or parallel port with your rig. This is the same type of interface used by the CT and NA programs, except that the PTT signal is supported and you can connect your paddle to the parallel interface and use the computer as a keyer. There are schematics with suggested circuits in appendix B.

3.1 INSTALLATION

The INSTALL program on your diskette will take care of installing the program. Simply put the disk in your drive, log onto it (i.e., type A: <return>) and then run the INSTALL program. It will copy all of the files on the diskette to your hard disk.

The INSTALL program will also take care of adding the directory with the program files to your PATH statement in your AUTOEXEC.BAT file. This will allow you to execute the TR program regardless of which directory you are logged into. If you don't have FILES=20 (or more) in your CONFIG.SYS file, it is a good idea to add this. This allows the POST program to process band/mode logs without errors.

The following file types are included in the program:

.EXE files: Four .EXE files are part of the TR package. INSTALL.EXE is used to install the logging program in the proper directory; TR.EXE is the main program and is used to run the logging software. POST.EXE is for doing post-contest chores and for other utility chores; INSTALL.EXE is the installation program; and DVPTSR.EXE is necessary if you are using the CT digital voice processor (DVP) board (see Section 5.10).

.OVR files: These overlay files are actually part of the .EXE files with the same prefixes; e.g., POST.OVR is part of POST.EXE. They cannot be mixed between versions.

.DOM files: These file are contest specific and provide the information to TR for determining multipliers and other scoring information. The files are in ASCII format and you can view them to better understand their structure and even edit them (carefully!!) to add other information. See Section 4.4.2 for more information.

CTY.DAT file: This file contains all of the country information used by TR to determine such things as, which prefixes are valid for a country, which zone and continent the country is in; and the country's time difference from GMT and its latitude and longitude (used to compute beam headings). This file is also in ASCII format and can be edited with new information. See Section 5.3 for more details on CTY.DAT.

FCONTEST.PAS: This Pascal source file shows the code that sets the program up for each of the contests you can select. It is not used by the logging program, so making changes here won't affect program operation. It is provided as a reference document so you can see the defaults established for each contest. The names of the variables match their corresponding LOGCFG.DAT parameters in most cases.

3.2 MEMORY CONSIDERATIONS

The amount of memory used by the program depends on some of the program options. To fully understand the total QSO capability of the program, you need to understand how these options affect the available memory and how much memory it takes to store a contact. The memory available while the program is running (in bytes) is displayed in the upper right hand corner of the screen.

When you start and your lower memory is relatively free, you should see 100K or more there. If this value is below 100K, then you should take steps to free up some space. Running MEMMAKER will usually do this for you automatically. This program is distributed with DOS versions 5.0 and later. In extreme cases, you might need to eliminate some of your loaded programs when using TR.

A dupesheet consists of blocks that hold 200 calls each. A 6 character (or less) callsign is compressed to 4 bytes so each block consumes 800 bytes. If you exceed the QSO limit of a block, another one is allocated. Therefore a dupesheet that has one call in it will take up as much memory as one with 199 calls. If you are working a contest where QSOs count once per band, then there will be a separate dupesheet for each band that you have made at least one QSO for (same for modes). The callsign does not enter the dupesheet until it has left the editable log. There is a separate list for calls that are longer than 6 characters (up to 12) and these hold 100 calls each for 800 bytes.

Multiplier sheets use different amounts of space depending on which mults are active. The country and zone sheets for the CQ WW use a total of 1800 bytes for each band with at least one QSO.

Finally, the partial call and initial exchange list uses 5 bytes per entry. Each block holds 200 calls, so memory is used up in 1000 byte chunks. A call appears once in this list, regardless of how many different bands/modes you work the same station on. The partial call list can be turned off with PARTIAL CALL ENABLE.

The initial exchange memory can only hold 1000 unique initial exchanges (up to 12 characters each). For most contests, this is plenty because there are less than 1000 different possibilities for the exchange.

So, if you are working the CQ WW Contest, expecting to work 3000 different stations (3000 X 5) for a total of 6000 QSOs (6000 X 4) on a total of six bands (1800 X 6 for the multsheets), you would need a minimum of about 51K of free memory. This includes one list of calls with more than six characters.

If you are using the TRMASTER.DTA file for super check partials or database functions, you will need to have another 40K available for the program to use when accessing the file. It is normal to see you available memory drop by about 40K after your first access the TRMASTER database. This is because the last cell that was loaded in from the file is kept in memory until a new cell is loaded.

If your available memory drops to near zero, the program will disable functions associated with TRMASTER and free up about 40K of memory so you can continue operating the contest without having top stop. This should be plenty to finish up most any contest. A message will be displayed telling you this was done.

4.0 LOGCFG.DAT CONFIGURATION FILE

The TR Logging Program is the most flexible logging program available. Many different parameters can be adjusted to suit your taste. Most of these can be adjusted while the program is operating using the Control-J command. They can also be set when the program starts by putting appropriate commands in a configuration file (LOGCFG.DAT).

LOGCFG.DAT must be available to the program when it starts up in a given directory. If the program doesn't find the LOGCFG.DAT file when it starts up, it will ask you some questions and generate one for you. At a minimum, this file must have two commands in it as shown:

```
MY CALL  =  N6TR
CONTEST  =  CQ WW
```

This will tell the program what your callsign is, and which of the many contests you want the program to set itself up for. The MY CALL command must always be the first command found in any LOGCFG.DAT file.

A complete list of all the LOGCFG.DAT commands is shown in Appendix A. This list will identify the legal values of each parameter, show which commands can be viewed or changed with the Control-J or other commands and give a description of how each command works. Check the READ.ME file included with your program. There are probably some new commands that have been added since the latest printing of the manual. Each release typically has two or three new commands.

All entries in the LOGCFG.DAT have the format shown above. The parameter you are addressing, an equal sign, then the value for the parameter. If an illegal parameter is specified, an error message will be generated and the program will halt. In this document, all entries will be shown in upper case, but the instructions are not case sensitive.

You can change over one hundred of the different LOGCFG parameters while the program is running by using the Control-J command. The menu will show the a list of the parameters you can adjust, and their current value. If you want your changes to be permanent, use the Alt-W or Alt-G commands to write your changes to the LOGCFG.DAT file. Alt-W will write the single parameter the cursor is highlighting and Alt-G will update all the parameters you changed during the execution of the Control-J command.

If you make changes to the LOGCFG.DAT file with a text editor, you might need to erase the RESTART.BIN file for the changes to take effect.

The LOGCFG feature gives you a lot of power to control how the logging program operates. Once you go beyond the simple commands, you can create situations where the program does not behave correctly. If this happens, I will be happy to help you figure out what is going on. In order to do this, I will need to see a copy of your LOGCFG.DAT file. This will allow me to reproduce the same environment you have created and understand the problem. Please also include the version of the program you are using.

Remember, except for MY CALL and CONTEST, all of the LOGCFG.DAT commands have default values. You do not need to have an entry in your file for each of these commands. You only need to make changes if you want the value to be different than the default.

4.1 PROGRAMMING CONTEST SELECTION

The second line of the LOGCFG.DAT file normally defines the contest that the program is going to be used for. The syntax is CONTEST = NAME. All major contests and most minor ones can be named here. When naming a contest, a large number of parameters are set up appropriately for that contest. This saves you from having to list every one of the parameters and decide how to set them for the contest you have in mind. You can look in the file FCONTEST.PAS included with your program to see how the program configures itself.

ALL ASIAN
ALL JA
ARCI
ARI
ARRL 10
ARRL 160
ARRL DX
ARRL VHF QSO
ARRL VHF SS

CAL QSO PARTY
COUNTY HUNTER
CQ 160
CQ M
CQ VHF
CQ WPX
CQ WW
CROATIAN

EUROPEAN VHF
EUROPEAN HFC

FIELD DAY

GENERAL QSO (RST, QTH and name)
GRID LOC

HA DX
HELVETIA

IARU
INTERNET SPRINT
IOTA

JA INTERNATIONAL DX

KCJ
KVP

NA QSO
NRAU
NZ FIELD DAY

OK DX

PACC

QCWA (no scoring)
QCWA GOLDEN (no scoring)

RAC
REGION ONE FIELD DAY
RUSSIAN DX

SAC
SOUTH AMERICAN WW
SP DX (non SP)
SPRINT (NCJ)
STEW PERRY
SWEEPSTAKES

TEN TEN
TEXAS QSO PARTY
TOEC

VK ZL

WAE
WRTC

XMAS

YO DX

Other contests can probably be operated by adding a few commands to the LOGCFG.DAT file. If not, I can often add new features that will allow you to operate them. Please feel free to send me information on the contest, and I will try to add it.

4.2 PROGRAMMING CW MESSAGES

You can program any of the CW messages after starting the program with the Alt-P command.

When you execute this command, select either CQ, EXCHANGE or OTHER messages. The CQ messages are sent when you press a function key while in the CQ mode. The EXCHANGE messages are sent when you are in the EXCHANGE or S&P (Search and Pounce) mode. Refer to Section 5.0 for a description of these two modes.

The OTHER menu shows various messages that might be sent during the QSO process, such as CQ EXCHANGE, S&P EXCHANGE, QSL MESSAGE and WORKED BEFORE MESSAGE. Any changes you make will be saved in your LOGCFG.DAT file so they will still be there if you restart the program.

There are some special characters that can be put into any of the CW messages to send special characters, intelligent messages or execute special functions:

Char	Function
#	Send QSO Number. Can be followed by + or - and a single integer to modify the number.
@	Send station's callsign as entered in call window
$	Send salutation and name if known (i.e., GE MASA). Adds a space at the end of message.
%	Send name from name database (adds a space at end if name present)
:	Send characters from keyboard until a RETURN or ESCAPE.
~	Send proper salutation without name (GM, GA or GE) based upon callsign.
\	Send call used in contest (as set by MY CALL =).
|	Send name that was copied into exchange window (RST QTH NAME Exchange).
[	Wait for a number to be typed to use as strength of an RST - and send it on CW.
]	Repeat complete RST as sent with [command.
_	Space (use at the start or end of message where spaces in LOGCFG are ignored).
^	Half space. Try CQ^TEST instead of CQTEST or CQ TEST.
}	Send prefix or suffix only of corrected call (callsign has been changed since answered).
)	Send callsign of last QSO in editable window.
(	Send name received in previous sprint QSO (at the bottom of the editable window).
>	Clear RIT - requires interfaced radio and only works with Yaesu and Kenwood.
+	End of message (AR)
<	End of work (SK)
=	Double dash (BT)
!	Understood or QRL? (SN)
&	Wait (AS)

EXAMPLE: To send a QSO number as part of a CW message, put a # in the message where you want it sent. A simple exchange of RST and QSO number would look like this:

CQ EXCHANGE = 599 #

The following control characters can also be included in CW messages. You can enter a control character when using the Alt-P menu to edit messages by pressing the Control-P key, then the desired control key.

Character	**Function**
Control-A	Send this message on inactive radio. Put this at the start of a message you want to have sent on the inactive radio. For example, in the Sweepstakes, you might program one of the exchange memory keys with Control-A CQSS CQSS \ \ SS. Then you can send this message while copying an exchange on your other radio.
Control-B	Identifies a message being sent using Control-A as a CQ. This sets the program up to respond correctly if you get an answer to the CQ. If you start entering characters in the call window before sending any other CW messages (except QSL messages), the program will assume that this is an answer to the CQ on the inactive radio. It will automatically switch radios so you can complete the QSO on the other radio.
Control-C	Program command. Allows you to program a function key to execute a command. To use, put a Control-C at the start of the message, one of the following commands, followed by a Control-D: BANDUP, BANDDOWN, CWMONITOROFF, CWMONITORON, DUPECHECK, LASTCQFREQ, TOGGLECW, TOGGLEMODES, CQMODE (puts you in CQ mode), SAPMODE (puts you in S&P mode), SPEED (numeric speed or +++ or --- characters to increment or decrement CW speed) or SWAPRADIOS. Note that all commands are executed at the start of the message - regardless of where they appear.
Control-D	Normally if you press a function key while a message is in progress, the message being sent will abort and the new message will start. However, if you put a Control-D at the start of a message, it will not interrupt a message in progress. Instead, it will wait until the message is complete before starting. The Control-D character also gets interpreted as a space if there was a message being sent. You can put several Control-D characters at the start of the message for a longer space. This space is not sent if the message is activated when there is no message being sent.
Control-R	Generate and send random five character code group. This is required for the SSA XMAS contest. The information will be logged if you are using the RST QSO Number And Random Characters exchange - which is the default for the SSA XMAS contest.
Control-T	Repeat code group generated from last Control-R. Handy if you need to repeat the exchange.
Control-U	Update CallsignICameBackTo variable with the call window contents. This is normally done automatically if you press the Alt-F10 message which defaults to "Is your call xxxx?" where xxxx is the call in the call window. When Control-U is found in a message, the call in the call window becomes the "call of record" and will be used when logging the QSO to decide if the CALL OKAY NOW message needs to be sent.
Control-W	Send name of previous-previous sprint QSO. Sends the name received two QSOs before in the sprint contest. This is handy in the Internet Sprint when you have logged a QSO but need to resend the "previous" name again.
Control-[@	(Control-Left-Bracket and then the @ character): If the call window has a ? in it somewhere, send a space and the contents of the call window.

The following commands can be used to change the speed or weight during a message. You can use multiple commands for bigger changes. It is a good idea to balance out the increases with corresponding decreases so you end the message at the same settings that you started it at.

Character	Function
Control-F	Increase speed by 6 percent.
Control-S	Decrease speed by 6 percent.
Control-X	Decrease weight by 0.03.
Control-Y	Increase weight by 0.03.

The following commands can be used to generate various length dits and dahs. These can be used to generate CW characters with personality. They can also be combined with normal CW characters to save memory. For example, you can make a six with a long dah by programming Control-O followed by an H.

Character	Function
Control-P	Send a dit which is 40 percent shorter than a normal dit.
Control-Q	Send a dit which is 20 percent shorter than a normal dit.
Control-\	Send a normal dit.
Control-V	Send a dit which is 20 percent longer than a normal dit.
Control-L	Send a dit which is 40 percent longer than a normal dit.
Control-E	Send a dah which is 27 percent shorter than a normal dah.
Control-Dash	Send a dah which is 13 percent shorter than a normal dah.
Control-K	Send a normal dah.
Control-N	Send a dah which is 13 percent longer than a normal dah.
Control-O	Send a dah which is 27 percent longer than a normal dah.

There are a group of commands that can control the Farnsworth CW feature during a CW message. Please read chapter 5.14 for information on Farnsworth CW and these commands.

The following is a list of other messages that can be programmed in LOGCFG.DAT. Remember you can program these with the Alt-P command under the Other menu while the program is running. Each is explained in more detail in the LOGCFG.DAT command listing in Appendix A.

MESSAGE	Purpose
CALL OK NOW MESSAGE	Sent before QSL message if callsign has changed.
CQ EXCHANGE	Sent after callsign is sent in CQ mode.
CQ EXCHANGE NAME KNOWN	Same as CQ EXCHANGE if we know the name.
CQ MEMORY F1 to CQ MEMORY F10	Sent by pressing F1 to F10 in CQ mode.
CQ MEMORY AltF1 to CQ MEMORY AltF10	Sent by pressing Alt-F1 to Alt-F10 in CQ mode.
EX MEMORY F3 to EX MEMORY F10	Sent by pressing F3 to F10 in exchange mode.
EX MEMORY AltF1 to EX MEMORY AltF10.	Sent by pressing Alt-F1 to Alt-F10 in exchange mode.
QSL MESSAGE	Sent when finishing a CQ mode QSO.
QSO BEFORE MESSAGE	Sent if a dupe calls you while in the CQ mode.
QUICK QSL MESSAGE	Sent if the quick QSL key was pressed to finish a QSO.
REPEAT S&P EXCHANGE	Sent if F2 was pressed to repeat S&P exchange.
S&P EXCHANGE	Sent if F2 or RETURN pressed in S&P mode.
TAIL END MESSAGE	Sent if tail end key is pressed.

4.3 PROGRAMMING WINDOW COLORS

The LOGCFG.DAT file can be used to select the colors used for any of the windows when in the color mode.

There are no colors to set up for the monochrome mode. You can select which mode to use with the command DISPLAY MODE. If DISPLAY MODE is set equal to COLOR, then the color set of colors will be used. Otherwise, the default monochrome set will be used. Note that the DISPLAY MODE command must come after all the commands setting up the colors, otherwise the commands will be ignored.

EXAMPLE: To use the window colors for color mode put the following command in LOGCFG.DAT after all your COLOR commands:

```
DISPLAY MODE = COLOR
```

For each window, there is a background and foreground color that can be specified.

EXAMPLE: To set the foreground color to Yellow and the background color to Blue for the Call Window when using the color mode, you would put the following commands into LOGCFG.DAT:

```
CALL WINDOW COLOR = YELLOW
CALL WINDOW BACKGROUND = BLUE
DISPLAY MODE = COLOR
```

The following windows may be modified:

ALARM WINDOW	Shown when alarm is set
BAND MAP WINDOW	Shows band map or dupesheet at bottom.
BAND MODE WINDOW	Shows band and mode near date
BEAM HEADING WINDOW	Shows beam headings
BIG WINDOW	Used for Control-J and Control-O
CALL WINDOW	Where calls are entered
CLOCK WINDOW	The time shown near the date
CODE SPEED WINDOW	Lower left, WPM
CONTEST TITLE WINDOW	Top and center
DATE WINDOW	Date shown near the time
DUPE INFO WINDOW	Just below free memory window
DUPESHEET WINDOW	Covers editable log when active
EDITABLE LOG WINDOW	Five lines above call window
EXCHANGE WINDOW	Below call window when active
FREE MEMORY WINDOW	Upper right corner
FUNCTION KEY WINDOW	Bottom line
INSERT WINDOW	To the right of call window
MULTIPLIER INFORMATION WINDOW	Upper right when active
NAME PERCENTAGE WINDOW	Bottom right in %
NAME SENT WINDOW	To the right of call window
POSSIBLE CALL WINDOW	Second line from bottom
POSSIBLE CALL WINDOW DUPE	Colors used when a possible call is a dupe
QSO INFORMATION WINDOW	Upper right when active
QSO NUMBER WINDOW	Between call and ex window
QUICK COMMAND WINDOW	Third line from bottom
RADIO WINDOW	Lower right, QSOs per hour
REMAINING MULTS WINDOW	Just below total window
TOTAL SCORE WINDOW	Upper left corner, Pts =
TOTAL WINDOW	Upper left, shows band totals
USER INFO WINDOW	Just below the call window
WHOLE SCREEN WINDOW	Used for errors at start

The following colors may be specified: Black, Blue, Green, Cyan, Red, Magenta, Brown, Light Gray, Dark Gray, Yellow, Light Blue, Light Green, Light Cyan, Light Red, Light Magenta, and White.

Some other colors you can program:

REMAINING MULTS WINDOW SUBDUE COLOR: Selects background color used for a country that has been worked. To make a worked country disappear, set the subdue color to be the same as the background color.

EXCHANGE WINDOW S&P BACKGROUND: This is the background color of the exchange window when you are in the Search and Pounce mode. Making this a unique color helps make it clear when you are in the S&P mode.

POSSIBLE CALL WINDOW DUPE COLOR and BACKGROUND: Used to highlight dupes in the possible call list.

SCP WINDOW DUPE COLOR and BACKGROUND: Used to HiLight dupes in the Super Check Partial display.

REMEMBER!!! Put these commands in your LOGCFG.DAT file before your DISPLAY MODE command. Otherwise, they will not take affect.

4.4 CONTEST PARAMETER SELECTION

There are a number of operating parameters that are set to specific values to operate a certain contest. These parameters are normally set when the CONTEST statement in the LOGCFG.DAT file is executed. However, if you are operating a contest that is not covered with a CONTEST statement, you may need to select a contest that is similar to the one you are operating, and then change some of the parameters to make it work correctly for you.

It is important to understand that the instructions in the LOGCFG.DAT file are executed in order and that if you are going to change one of these parameters, you must do it after the CONTEST statement has been executed. Keeping the CONTEST statement as the second statement of your LOGCFG.DAT file is the best way to avoid any problems.

EXAMPLE: To operate a contest that is the same as the ARRL DX contest, but where CQ countries are used as multipliers, your LOGCFG.DAT would look like this:

```
MY CALL = 4U1ITU
CONTEST = ARRL DX
DX MULTIPLIER = CQ DXCC
```

If the DX MULTIPLIER command appeared before the CONTEST command, it would be ignored since the CONTEST command will reset DX MULTIPLIER to ARRL DX WITH NO USA OR CANADA.

4.4.1 MULTIPLIER TYPES

Normally the multiplier types are properly set up when the CONTEST statement in your LOGCFG.DAT file is executed. However, you may want to over-ride the default settings when configuring the program to operate other contests. There are four different families of multipliers which operate independently from each other.

The following chart shows the different possible types for each family:

DOMESTIC MULTIPLIER
- NONE
- DOMESTIC FILE (uses .DOM file - specify filename with DOMESTIC FILENAME)
- GRID FIELDS
- GRID SQUARES
- WYSIWYG (What you see is what you get)

DX MULTIPLIER
- NONE
- ARRL DXCC
- ARRL DXCC WITH NO ARRL SECTIONS
- ARRL DXCC WITH NO I OR IS0
- ARRL DXCC WITH NO USA OR CANADA
- ARRL DXCC WITH NO USA CANADA KH6 OR KL7
- CQ DXCC
- CQ DXCC WITH NO HB9
- CQ DXCC WITH NO OK
- CQ DXCC WITH NO USA OR CANADA
- CQ EUROPEAN COUNTRIES
- CQ NON EUROPEAN COUNTRIES
- NON SOUTH AMERICAN COUNTRIES
- NORTH AMERICAN ARRL DXCC WITH NO USA CANADA OR KL7

PREFIX MULTIPLIER
- NONE
- PREFIX
- SAC DISTRICTS
- SOUTH AMERICAN PREFIXES

ZONE MULTIPLIER
- NONE
- BRANCH ZONES (1-99)
- CQ ZONES (1-40)
- ITU ZONES (1-75)
- JA PREFECTURES (1-50)

4.4.2 DOMESTIC MULTIPLIER FILES

Included with the TR program are many domestic multiplier files. These files have the extension .DOM and are ASCII files that you can look at with the TYPE command, or edit with a text editor (EDIT or NOTEPAD). You can also generate your own files for contests not currently supported by the program.

The syntax for the files is simple. For example:

Al = AL
Ak = AK, ALK, ALAS

Here, two domestic multipliers are being created: Al (Alabama) and Ak (Alaska). Note that at least one character in the domestic multiplier needs to be lower case. This allows the program to keep them separated from country multipliers when both are active at the same time.

When a domestic QTH is being located, the program will start with the whole name, and see if it matches any of the entries on the right hand side of the equal sign. For example, if someone entered ALA for Alabama, the program will see if any of the entries is ALA. In this case, none of them are. When no matching entries are found, the program will then delete the LAST character in the entry and try again. In this example, ALA will turn into AL, and this will match and the QTH will be Al.

Note that not every entry starting with AL will end up in Alabama. If someone entered ALK or ALASKA, it will end up in Ak for Alaska.

If you are in a QSO party where many different counties count for one state multiplier, you will need to know about the assign feature of the domestic multiplier files. For example:

Vent > Ca = VE

This command will allow anything starting with VE to be identified as Vent (Ventura country). However, for multiplier purposes, this domestic QTH will be counted as Ca (California).

In the domestic multiplier files, any line without an equal sign is ignored, so you can put comments anywhere you want.

If you make a new domestic multiplier file, you will need to tell the program the name of the file with the command DOMESTIC FILENAME. Make sure DOMESTIC MULTIPLIER = DOMESTIC FILE as well.

Remember that the domestic multiplier names have at least one lower case character in them. This is done so the program can tell the difference from a new domestic multiplier and a DX multiplier when restarting the program. If you are editing the log and adding a domestic multiplier in the new multiplier column, you need to make sure it has at least one lower case character in it, or the program will try to process it as a DX multiplier. If the contest you are working only has domestic multipliers, then all multipliers will be processed as domestic, regardless of case.

When the program looks at the exchange information to see if it specifies a domestic multiplier location, it will normally put a standard name for the multiplier both in the exchange received and multiplier columns of the log. If you want to record the actual entry in the log, set LITERAL DOMESTIC QTH = TRUE.

4.4.3 QSO POINT METHODS

Another parameter that determines how the program will operate is the QSO POINT METHOD parameter. This will determine how QSO points will be calculated. The possible values for this are:

- NONE
- ALL ASIAN
- ARCI
- ARI
- ARRL DX
- ARRL VHF
- ARRL VHF SS
- ARRL 160
- ARRL 10
- CQ 160
- CQ M
- CQ WW
- CQ WPX
- CROATIAN
- EUROPEAN VHF (counts one QSO point per kilometer)
- HA DX
- HELVETIA
- IARU
- IOTA
- JA INTERNATIONAL DX
- KCJ
- NZ FIELD DAY
- OK DX
- REGION ONE FIELD DAY
- RUSSIAN DX
- SCANDINAVIAN
- SL FIVE POINT (SL prefixes count five point, all others count one point)
- SOUTH AMERICAN WW
- STEW PERRY (counts one point + one extra point for each 500 kilometers)
- TEN TEN
- TOEC
- VK ZL
- WAE
- YO DX
- ONE POINT PER QSO
- TWO POINTS PER QSO
- THREE POINTS PER QSO
- TWO PHONE THREE CW
- TWO PHONE FOUR CW
- ONE PHONE TWO CW
- THREE PHONE FIVE CW

EXAMPLE: The following command will set the QSO POINT METHOD to two points per phone contact and three points per CW contact:

QSO POINT METHOD = TWO PHONE THREE CW

You can also specify how many QSO points will be scored for domestic/DX and CW/Phone QSOs with the commands QSO POINTS DOMESTIC CW, QSO POINTS DOMESTIC PHONE, QSO POINTS DX CW and QSO POINTS DX PHONE.

4.4.4 ACTIVE EXCHANGE

There are various types of exchanges that the program can accept. Again, the proper one is selected when the CONTEST statement is executed. However, if you need to change the type of exchange, here is how to do it:

EXAMPLE: To change the exchange received to RST POWER EXCHANGE, put the following line in the LOGCFG.DAT file after the CONTEST statement:

EXCHANGE RECEIVED = RST POWER EXCHANGE

The available exchange types are:

CHECK AND CHAPTER OR QTH EXCHANGE
CLASS DOMESTIC OR DX QTH (Field day class)
NAME AND POSSIBLE GRID SQUARE
NAME QTH AND POSSIBLE TEN TEN NUMBER
NAME DOMESTIC OR DX QTH
QSO NUMBER DOMESTIC QTH
QSO NUMBER DOMESTIC OR DX QTH
QSO NUMBER NAME CHAPTER AND QTH EXCHANGE
QSO NUMBER NAME DOMESTIC OR DX QTH
QSO NUMBER PRECEDENCE CHECK SECTION
RST AGE
RST ALL JA PREFECTURE AND POWER
RST AND CONTINENT
RST AND OR GRID
RST DOMESTIC OR DX QTH
RST DOMESTIC QTH
RST DOMESTIC QTH OR QSO NUMBER
RST NAME QTH
RST POSSIBLE DOMESTIC QTH AND POWER EXCHANGE
RST POWER
RST QSO NUMBER
RST QSO NUMBER AND DOMESTIC QTH
RST QSO NUMBER AND GRID SQUARE
RST QSO NUMBER AND POSSIBLE DOMESTIC QTH
RST QSO NUMBER AND RANDOM CHARACTERS
RST QSO NUMBER OR DOMESTIC QTH
RST QTH
RST ZONE
RST ZONE AND POSSIBLE DOMESTIC QTH
RST ZONE OR SOCIETY

The exchange received controls what parameters the program is looking for when entering an exchange, and how the information will be displayed in the log.

For exchanges that have both a domestic and DX QTH, the callsign is used to determine if the QSO should be treated as domestic or DX. The program keeps a list of countries which are to be considered domestic. This list is normally set up by the contest you select. You can add countries to this list with the ADD DOMESTIC

COUNTRY command. This command will also let you clear the list and start from scratch if desired. See Appendix A for more information on this command.

4.4.4.1 EXCHANGE FORMATS

You should find that the input format for the exchanges is fairly intuitive. RS(T)s can be left out if you want the default value of 599 or 59 logged. QSO numbers will be assumed as 1 if nothing is entered. Domestic QTHs need only enough characters to uniquely identify the QTH. For example, you can enter Quebec as VE2, PQ, Qu, Que or Quebec and they will all count as vE2. This means you don't have to worry about creating new multipliers if you enter a QTH differently. Domestic multipliers will have at least one lower case character in them when they appear in the log. This is done so they can be distinguished from other multipliers if the program is restarted.

CHECK AND CHAPTER OR QTH EXCHANGE: Enter the check, a space, then the chapter or QTH.

CLASS DOMESTIC OR DX QTH: The exchange must be at least 2 characters in length. For a domestic call, the exchange must have a space with the class appearing before the space and the QTH after the space. The QTH must identify a domestic QTH. A DX station needs only the class. In both cases, the class must be two or three characters in length.

NAME AND POSSIBLE GRID SQUARE: The entries may be in any order with spaces between them. Starting at the end of the exchange entered, the first item found that looks like a grid square will be used for the domestic QTH and the first item found that does not look like a grid square will be used for the name.

NAME QTH AND POSSIBLE TEN TEN NUMBER: There can be two or three entries, separated with spaces. The name must always appear before the QTH, but the optional Ten Ten number can appear anywhere in the exchange. The QTH can only be one word (no spaces within it). If the station is a DX call, then the QTH is not necessary.

NAME DOMESTIC OR DX QTH: If the exchange is for a DX station, there is only the name to input. If it is for a domestic station, the name must be first, with the domestic QTH second (separated with a space).

QSO NUMBER DOMESTIC QTH: There must be at least one character in the exchange. If the exchange has a space which separates the QSO number and QTH, the program will figure out which is which. If there is no space, and the exchange identifies a domestic QTH, the QSO number will be assumed as one.

QSO NUMBER DOMESTIC OR DX QTH: If the station is outside the 50 states, you do not need to enter the QTH. For domestic stations inside the 50 states, you can enter the QSO number and QTH in either order, separated by spaces.

QSO NUMBER NAME CHAPTER AND QTH EXCHANGE: Four entries, separated with spaces. The QSO number can be first or last, but name, chapter and QTH must be in order in both cases.

QSO NUMBER NAME DOMESTIC OR DX QTH: The length of the exchange must be at least 7 characters and always include a QSO number. Each entry of the exchange must be separated by one or more spaces. The first numeric entry found is assumed to be the QSO number. Typically, the name should appear before the QTH, but the program will often properly process the exchange if the name is first. It will use the longer of the two remaining entries as the name - unless the shorter entry matches the name in the .DTA database. If the name and QTH are the same length, or if the QTH is longer than the name, make sure the name appears before the QTH. If an exchange element is missing, an error message will be displayed when you try to log the contact. For DX stations, enter the prefix as the QTH (optional).

You can also enter the following exchanges. Where duplication occurs, the last entry for each element is used:

NAME QTH # NAME QTH # NAME QTH NAME # NAME QTH
QTH # NAME QTH NAME QTH # NAME

QSO NUMBER PRECEDENCE CHECK SECTION: There is much flexibility in how you can input this information. Typical examples are:

1A67LAX	1 A 67 LAX	1A 67LAX	1A TR 67LAX
1A 67LAX N6TR	1A 67LAX 23A	1A 67LAX N6TR TR Q	

The basic rule is that entries near the end of the exchange will overwrite earlier entries. In the last example, the precedence Q will be used. If a callsign is included, it will override the callsign in the call window if it is different. A four character entry that does not look like a callsign will be used as the section if it matches one of the sections. CALLSIGN UPDATE ENABLE needs to be true for the callsign updates to occur.

RST AGE: If you want to use the default RS(T), just enter the age. You can enter just the strength of the RS(T) and the age, or the full RS(T) and the age. The RS(T) portion must always appear before the age and spaces are optional. The age must always be two digits.

RST ALL JA PREFECTURE AND POWER: Only numbers may appear in the exchange. The RS(T) is optional. If you have two entries, the first is the prefecture number, the second is the power, and the default RS(T) is used. If you have three entries, the first is the RS(T), the second is the prefecture number and the third is the power. You can just enter the strength of the RS(T). The power must be three digits.

RST AND CONTINENT: The RS(T) is optional, and the continent can be NA, SA, EU, AF, OC or AS.

RST AND OR GRID: The exchange must have at least an RS(T) or a Grid (four or six digit). It can also have both. If no RS(T) is input, the RST field will be blank. The two entries can be in any order, but must have a space between them. You can enter each multiple times, and the last entries will be used.

RST DOMESTIC OR DX QTH: The RS(T) is optional. The QTH only need be entered if it is a domestic station. The DX QTH will be calculated from the callsign. If it is a domestic station, there must be a space between the RST and QTH. They can appear in either order.

RST DOMESTIC QTH: Same as RST DOMESTIC OR DX QTH except you must always enter a QTH.

RST DOMESTIC QTH OR QSO NUMBER: This behaves just like RST DOMESTIC QTH if the station is not a DX station. If it is a DX station, it behaves just like RST QSO NUMBER.

RST NAME QTH: This is normally used only in the GENERAL QSO MODE. Each entry must be separated with spaces. The following formats will work:

Entry #1	Entry #2	Entry #3	
			(RS(T) = default, no QTH/name)
Name			(RS(T) = default, no QTH)
Name	QTH		(RS(T) = default)
Name	QTH	RS(T)	(Enter whole RS(T))
Name	RS(T)		(No QTH)
Name	RS(T)	QTH	(Enter whole RS(T))
RS(T)			(Enter whole RS(T), no QTH/name)
RS(T)	Name		(Enter whole RS(T), no QTH)
RS(T)	QTH	Name	(Enter whole RS(T))

RST POSSIBLE DOMESTIC QTH AND POWER EXCHANGE: This exchange was created for the ARCI QRP contest. The power entry can also be used for the ARCI member number. For non members who send their power, make sure to include a W, R or M in the power so the QSO points are correct.

RST POWER: You can enter just the power and get the default RS(T), or enter the RS(T), a space, and then the power. You can enter just the strength of the RS(T) if you like.

RST QSO NUMBER: The exchange must have at least one character and all characters must be either integers or spaces. If there are no spaces in the exchange, the whole exchange is used as the QSO number and the default RS(T) is used. If the exchange has a space, the RST is assumed to be the first entry and the QSO number the second. You can just enter the strength of the RS(T) or the whole report. "Cut" numbers may be entered for the QSO number (i.e., A, U, N and T).

RST QSO NUMBER AND DOMESTIC QTH: Works just like the RST QSO NUMBER exchange, except a domestic QTH is added at the start or end of the exchange. It must have a space separating it from the other entries of the exchange. It must also contain at least one non-numeric character.

RST QSO NUMBER AND GRID SQUARE: The grid can either be a four or six letter grid. Put spaces in-between each entry. If you put in a RST, make sure it is first. The grid and QSO number can be in any order.

RST QSO NUMBER AND POSSIBLE DOMESTIC QTH: Works just like the RST QSO NUMBER exchange, except an optional domestic QTH can be added at the start or end of the exchange. It must have a space separating it from the other entries of the exchange. It must also contain at least one non-numeric character.

RST QSO NUMBER AND RANDOM CHARACTERS: Works just like the RST QSO NUMBER exchange, except a five letter code group is added at the start or end of the exchange. It must have a space separating it from the other entries of the exchange. It must also contain at least one non-numeric character.

RST QSO NUMBER OR DOMESTIC QTH: The following formats will work:

Entry #1	Entry #2	
QSO#		Uses default RS(T). A QSO# is all numbers.
QTH		Uses default RS(T). A QTH has a least one letter.
RS(T)	QSO#	
RS(T)	QTH	

RST QTH: This format allows you to enter a RS(T) (optional) and up to 22 characters of QTH information and can include spaces. The RS(T) must appear either at the start or end of the exchange.

RST ZONE: You can just enter the zone, or enter the RS(T), a space, and then the zone. You can enter just the strength of the RS(T) if you like, or omit it for the default. If you are in CW, you can have the zone entered first, a space, and a three digit RST. This allows you to add a non-599 RST to the default zone.

RST ZONE AND POSSIBLE DOMESTIC QTH: Works just like the RST ZONE exchange, except an optional domestic QTH can be added at the start or end of the exchange. It must have a space separating it from the other entries of the exchange. It must also contain at least one non-numeric character.

RST ZONE OR SOCIETY: Allows an ITU Society name to be entered instead of a zone. The society multipliers will be counted as domestic multipliers. You can enter just the strength of the RS(T) if you like, or omit it for the default.

4.4.4.2 INITIAL EXCHANGES

In many situations, it is possible to know all or part of the exchange based strictly on the callsign of the station. If this is the case, the program will automatically insert this information into the exchange window with initiating a QSO with the station. This information can come from one of several sources:

- CQ or ITU zone based upon information in the .CTY country files.
- TRMASTER database which can store names, QTHs, check, section, grid and other information.
- Previous exchanges saved in the exchange memory from a previous QSO with the station.
- Initial exchange file which will load up the exchange memory with initial values.

For the first two choices (zone or TRMASTER information), the INITIAL EXCHANGE parameter determines what information will be used for the initial exchange. Normally this is automatically programmed based upon the contest you have selected. However, if you are programming a different contest, you might want to change from the default. Refer to the INITIAL EXCHANGE entry in Appendix A for legal values.

If you have worked a station before, or if an entry for the station appears in the initial exchange file, the information in the exchange memory will over-ride the first two sources. So, if you have TREE as the name for N6TR in your TRMASTER database, the initial exchange the first time you work N6TR will be TREE. However, if he gives you the name LARRY, this will be the initial exchange the next time you work him.

Information stored in the exchange memory from previous QSOs includes age, zone, ITU society, power, name, field day class or domestic QTH (including grid squares). Note that the parameter EXCHANGE MEMORY ENABLE needs to be TRUE for this feature to work (this is the default condition unless you operating the Internet Sprint contest).

You can create a file to define the initial exchanges for a list of callsigns with the filename INITIAL.EX. The file simply has the format of the callsign, one or more spaces, and the initial exchange information. If the program finds the INITIAL.EX in the directory you are in, it will load the calls into the partial call list and initial exchange memory. Up to 1000 unique initial exchanges can be specified in the INITIAL.EX file, but the number of callsigns is unlimited. Normally the .DTA database is used for this purpose, but in some special cases, the INITIAL.EX file is useful.

EXAMPLE of an INITIAL.EX file:

```
N6TR  TREE  OR
N6AA  DICK  CA
N6ZZ   PHIL  TX
K6NA  GLEN  CA
K6LL   DAVE  AZ
```

This might be a useful format for the NCJ Sprint or NAQP contests.

When an initial exchange is placed into the exchange window, you can control the placement of the cursor to be at the start or end of the exchange. This is done with the command INITIAL EXCHANGE CURSOR POS. Legal values are AT END or AT START. You can control this parameter from the control-J menu.

4.5 REMINDERS

You can program messages that will be displayed at a certain time and date.

EXAMPLE: To program a message to tell you when sunrise is in Japan for the 25th of November, 1990, put the following two lines in your LOGCFG.DAT file:

```
REMINDER = 2142 ON 25-NOV-90 ALARM
Sunrise is happening now in Japan.
```

The word ALARM is optional. If it is there, the same alarm used for the Alt-A alarm function is used. If the word ALARM is not there, a simple beep will sound when the message is put up.

Instead of putting the actual date, you can substitute the name of the day of the week:

EXAMPLE: To program a message to tell you when the contest starts, put the following two lines in your LOGCFG.DAT file:

```
REMINDER = 0000 ON SATURDAY
Time to start the contest
```

Using the day ALL will make your reminder show up every day. You can add reminders during the contest without stopping the program by using the Alt-O function. You can use the day name TODAY with the Alt-O command if you like. Reminders added with the Alt-O command will be added to your LOGCFG.DAT file. Up to 100 reminders can be stored by the program.

A different type of reminder is the TOTAL SCORE MESSAGE. You can define up to ten messages that will be printed when you achieve a certain score. Use the following syntax in your LOGCFG.DAT file:

```
TOTAL SCORE MESSAGE = 1000000
Congrats on breaking one million!!
```

The message "Congrats on breaking one million" will be displayed in the Quick command window for two seconds. The congratulations fanfare will be sounded.

5.0 OPERATION

When the program is started, you will be in the CQ Mode. Normally, F1 and F2 are set up with different CQ messages. If the callsign window is empty, you can also call the F1 CQ message by pressing RETURN. When a station calls you, type the call into the call window, and then press RETURN. Now an exchange window will appear and you type the exchange into this window and press RETURN when you are done. If the exchange and callsign make sense to the program, it will log the contact. You do not need to enter 599 or 59 as the program will assume this is the correct value unless you enter something else.

As you type a callsign into the Call Window and if the PARTIAL CALL ENABLE is TRUE, you will be shown callsigns that start with the same characters you have entered. You can select this using the POSSIBLE CALL CURSOR commands and the POSSIBLE CALL ACCEPT KEY. Calls that are dupes will be highlighted. You can change the highlight color if you like (see Section 4.3).

After you press RETURN, you will be shown POSSIBLE CALLS instead. These are calls from both the name database and dupesheet that are similar to the one you are working.

Code speed can be adjusted with the Alt-S command, or with the Page-Up and Page-Down keys. Pressing one of those keys will either increment (Page-Up) or decrement (Page-Down) the speed by 3 WPM. You can also adjust the speed of the inactive radio using Control-Page-Up and Control-Page-Down.

If you have set the MY GRID parameter to your location, you will be shown beam headings and sunrise/sunset times for the station you are working. These are computed in real time using the information in the country file (CTY.DAT).

You can move between the Call Window and the Exchange Window using the up or down arrow, tab, page up or page down, or control key cursor commands. The control key cursor commands implemented are:

ControlA - Move back one word
ControlS - Move back one character
ControlD - Move forward one character
ControlF - Move forward one word
ControlX - Move down one line
ControlC - Page down
ControlE - Move up one line (not available if using the multi port).
ControlR - Recall last entry deleted with ESCAPE
ControlG - Delete character
ControlW - Erase window (call or exchange window without stopping CW)
ControlY - Erase line (only implemented in editor)

When making a QSO, pressing the ESCAPE key do the following: If a CW message is being sent by the keyer, it will be terminated. If there was no CW message and there is an entry in the window the cursor is in, the entry will be cleared. If there is no CW being sent and the window is empty and you are in the Search and Pounce mode, you will return to the CQ mode. If you were in the CQ mode, all QSO information will be erased.

You should find that pressing the escape key becomes a natural way to back up one step in the QSO process. If you are in the process of executing any command, an ESCAPE will abort the command and leave parameters unchanged. The command will be cleared before any CW or other escape action is taken. If you delete the contents of a window with ESCAPE by mistake, you can recall the entry with Control-R.

To search and pounce, press the TAB key to enter the search and pounce mode. The exchange window will be green to indicate you are in this mode. You can change this color with the EXCHANGE WINDOW S&P BACKGROUND command. Press F1 or RETURN to call a station. F1 will send DE and your call, however RETURN will check to make sure the station is not a dupe first and then send DE and your call. If you pressed F1 and need to stop sending right away, press it again (or escape). Note that pressing F1 again after a few seconds results in your call being sent again without the DE in front of it. This makes it easy to send you call twice if you want.

The F2 key is used to send the exchange. The first time the exchange is sent, the S&P EXCHANGE is sent. Pressing the F2 key again will send the REPEAT S&P EXCHANGE. If you have not sent the exchange before pressing RETURN to log the contact, it will be sent automatically. If you have programmed an exchange that includes a serial number, and you press F2 with no entries in the call or exchange windows, the program will assume you are giving a fill to the station you just logged. It will decrement the QSO number by one to make it the same as the number you sent the first time. This feature is active if the parameter AUTO QSO NUMBER DECREMENT is set to TRUE (the default is FALSE).

The ESCAPE key will exit you from the search and pounce mode and back into the CQ mode. You can also use shift-tab to move from the search and pounce mode to the CQ mode without erasing the contents of the call window.

There is a shortcut to enter the search and pounce mode and instantly send your call. This is done by pressing the space bar when the call window is empty. This was developed with the sprint contests in mind, but is useful any time you want to quickly dump your call.

To respond to a tail-ender, use the TAIL END KEY. When you are finished with your present QSO, hit the TAIL END KEY, the TAIL END MESSAGE (normally an "R") will be sent and then you can start entering the call of the tailender. As you enter the call, it will be sent on the air. Pressing RETURN will complete the call and send the exchange. The previous QSO will now be logged and the new one set up. The default for the TAIL END KEY is].

When entering a callsign, you can use the question mark as a character. You will have to change it to a proper call character before the program will let you log the contact.

There are a number of commands that can be executed by pressing the Alt or Control key and another key. A list of these commands can be viewed by pressing Alt-H (help menu). Information for any of the displayed commands can then be accessed by pressing the proper key for that command. It is strongly suggested that you read the help message for each of these commands before using the program in a contest. A list of these commands follows on the next page.

Alt-H HELP MENU

Alt-A	Alarm set/clear	Alt-P	Program CW mem	Ctrl-B	Talk to packet port
Alt-B	Band up	Alt-Q	Auto CQ	Ctrl-J	LOGCFG value edit
Alt-C	Auto CQ resume	Alt-R	Radio toggle	Ctrl-K	Clear dupesheet
Alt-D	Dupe check	Alt-S	Set CW speed	Ctrl-L	LOG.DAT file view
Alt-E	Edit QSOs	Alt-T	Set time/date	Ctrl-N	Note entry
Alt-F	Floppy save	Alt-U	Flush edit log	Ctrl-O	Missing mult report
Alt-G	Swap mults	Alt-V	Band down	Ctrl-P	Possible call redo
Alt-H	Help menu	Alt-W	Wake up reset	Ctrl-Q	QTC functions
Alt-I	Increment received #	Alt-X	Exit program	Ctrl-R	Later erased entry
Alt-J	Multiplier Bell	Alt-Y	Delete last QSO	Ctrl-U	Last 10 packet spots
Alt-K	Kill CW	Alt-Z	Redo initial ex	Ctrl-Y	Refresh band map time
Alt-L	Log Search	Alt-=	Sidetone toggle	Ctrl--	2 radio dueling CQs
Alt-M	Toggle mode	Alt--	AutoSend toggle	Ctrl-\	CQ QSO without CW
Alt-N	Enter XMIT Freq	Alt-1	Increment time	Space	Check if dupe
Alt-O	Add reminder	"	Send multi message	`	Send spot to packet

When using domestic multipliers and mult by band or mult by mode, you can view the multiplier information for a multiplier by entering the first few characters of the multiplier in the call window. The multiplier information window will automatically show the information for that multiplier. To obtain multiplier information for the other types of multipliers (i.e., country, prefix or zone), simply put the call in the call window and perform a dupe check (space bar).

If you are using the computer to send CW, you can tune your transmitter by pressing the SHIFT and CTRL keys on the left hand side of your keyboard down together.

You can activate the Alt-E editor using the up arrow key if your cursor is in the call window without any characters entered.

If you are operating a contest in which you need to keep track of your off time, the program can do this for you. To start an off time enter the command **\OFF** in the call window. To end the off time, use the command **\ON.** A note will be made in your log indicating when the off time started and when it ended.

An external footswitch may be connected to one of your parallel ports. The footswitch can be used for various functions including acting like the RETURN key. Refer to section 5.16 for more information on this feature.

While you are running a contest, you can execute a LOGCFG.DAT type file to change many parameters. This might be done when changing operators to allow for a different configuration (including DVP files) to be loaded quickly. To execute a config file, use the Control-V command.

5.1 TWO RADIO MODE

When the TWO RADIO MODE flag has been set to TRUE, you are in the two radio mode. This mode has been designed to be very efficient for those operators who like to CQ with one rig and search and pounce with the other. With practice, this process will be easy enough to use even during high rate situations.

Even without the two radio mode enabled, the Alt-D command will perform a dupe check on the inactive radio. This can be done while the active rig is CQing or sending an exchange. If a call is not a dupe, it will be displayed in the upper right hand corner of the screen. To work this station, you can press the space bar which will make the inactive radio the active radio, enter the station's callsign in the call window, and put you in the search and pounce mode. After you log the contact, you are returned to the previous radio's band and mode and you are back in the CQ mode.

When you enable the TWO RADIO MODE, it takes this process even farther. In this case, when you press the space bar, in addition to the above, the program will call the station for you just as if you had pressed the F1 key in the search and pounce mode. As soon as the call is complete, a CQ stored in CQ MEMORY ALT-F3 will be launched on the run radio.

If the station doesn't come back to you, press the ESCAPE key to abort the two radio process. You are then ready to respond to a station answering your CQ. You can call the station again later by pressing the space bar again.

If after calling the station, they need to hear your call again, press the F1 key. This will stop the CQ which was being sent on the run radio, send your call on the second radio, then relaunch the CQ on the run radio.

You have a choice to make when it is time to send your exchange. If you feel confident that the station will copy your exchange the first time around, use RETURN to send your exchange. This will log the contact while your exchange is being sent and start a CQ on your run radio as soon as the exchange is complete.

If you want to be able to send fills to the station, you need to send the exchange using the F2 key. This will keep the QSO open after the exchange has been sent, and you can send fills with the appropriate exchange function keys or manually with a paddle. After the station QSLs, press the RETURN key to log the contact and start a CQ on the run radio.

It is impossible to send CW on both radios at the same time. If a CQ is being sent and you need to send something on the other radio, the CQ will terminate. The CW speed is remembered separately for each radio. You can adjust the CW speed for the inactive radio by using Control-Page-Up and Control-Page-Down.

A handy trick when copying an exchange from someone who is taking a very long time is to have another CQ message available to send on the run frequency. This can be done with an exchange function key memory by starting the message with a Control-A (send the CW on the inactive radio). Remember, you can put control characters in a CW message while using Alt-P by using Control-P then the control character.

Another interesting two radio trick is to alternate CQs on each radio until someone comes back. This can be done with the Control-Dash command. The CQ message used will be the one in CQ MEMORY Alt-F1. As soon as you start entering a call, the CQ will stop on the other radio, and the program will set itself up for you to respond to the call. If you want to send a CQ on the other radio while receiving the exchange, program it in CQ MEMORY Alt-F2. This feature is always available, even without TWO RADIO MODE set to true.

5.2 ENTERING A HAND LOG AFTER A CONTEST

If you are using the program to enter a hand written log after a contest, there are a couple of features that will make your life easier. First, setting AUTO TIME INCREMENT = N will automatically increment the time by one minute after N QSOs. Second, setting AUTO DUPE ENABLE CQ = FALSE will allow you to log duplicate contacts. The program will beep to let you know you have worked the station before. This allows you to mark it in your written log if you want. These contacts will be flagged as dupes when you execute the dupe check command in POST. Finally, setting INCREMENT TIME ENABLE = TRUE will allow you to increment the time easily using the Alt key and the number of minutes you want to move ahead.

If you are entering a log that has separate sheets for each band, you will need to enter one band at a time and rename the LOG.DAT file to a unique name for each band. You can combine them into a single LOG.DAT file using the POST append procedure. Then you can process it like any other log file.

Another useful feature when entering a hand log is the BEEP EVERY 10 QSOS flag. When TRUE, the program will generate a short BEEP every 10 QSOs. This makes is easy to see if you have omitted a contact.

5.3 COUNTRY LIST CHANGES

Starting with Version 5.77 of the program, the CT version 9 CTY.DAT file has been adopted. This file has more information than the old .CTY files. It includes the information from all three of the previous .CTY files plus latitude and longitude which is used for beam headings. Up to 500 countries can be processed by the program.

The CTY.DAT file can be edited with a simple text editor (i.e., EDIT or NOTEPAD) to add new countries or modify the prefixes assigned to certain countries. You can also download updated copies from the internet or the BBS. One source is via anonymous ftp to jzap.com in the pub/ct-files directory. Look for the file CTY.ZIP.

The CTY.DAT file must be located in the either the working directory, or the same directory as the TR program file. If you want to use a specific CTY.DAT file for a certain contest, put it in the working directory for that contest. It will be loaded instead of the general purpose copy in the program directory.

One addition to the standard CT format is at the end of the file. You can indicate the countries you want to have displayed in the remaining multiplier window. There is a default list of about 100 common countries that the program will normally use. However, if you want to create a different list or remaining countries, use the following command at the end of your .CTY file:

REMAINING MULTS
A3 BV BY CE DL DU EA F G GM GW HA HB HK HL I JA K LA LU LY LZ OA OE OH OK OM OZ PA PY SM SP UA UR VE XE YU ZL 4X

You can specify up to 200 remaining countries, although they may not all fit in the window depending on the number of characters. The REMAINING MULTS command can only be used for DX MULTS. The remaining domestic multipliers are taken directly from the data in the .DOM domestic file selected.

You can increase the size of the remaining country display by setting the parameter BIG REMAINING LIST to true. You should find a default list of about 150 countries if you select the big window.

You can either update the .CTY yourself, or download them from a number of different sources. You can find them by anonymous ftp to jzap.com or on the TR Log BBS.

5.4 TRMASTER DATABASE

The TRMASTER database is contained in the file TRMASTER.DTA. This file is not included with the program, but can easily be created using tools in the POST program. You can also take an existing MASTER.DTA file (used by CT and NA for Super Check Partial) and copy it to TRMASTER.DTA as a starting point. However, once you add information other than callsigns to the database, you will not be able to reverse the process and use the file with other programs.

Both POST and TR look for the TRMASTER.DTA file first in the directory you are logged into, then in the directory where the program files are located (TR.EXE and POST.EXE). It is best to have just one copy of TRMASTER.DTA in the directory with the program files. If you need a custom database for a specific contest, put the special file in the directory you will be logged into when working that contest.

The TRMASTER database contains a list of calls, and any of the following information for each call:

Field Name	Max Characters	Field Name	Max Characters
Name	12	QTH	10
Old Call	12	Code Speed	2
ARRL Section	5	TenTen	6
CQ Zone	2	User 1	12
FOC number	5	User 2	12
Grid	6	User 3	12
ITU Zone	5	User 4	12
Check	2	User 5	12

There is also a Hits field for each callsign. This field contains a count of how many times the callsign has been found in the various files you can examine for data. You can delete callsigns that have a hit count below a certain amount. This might be done to eliminate calls that you are not sure are correct.

Refer to section 6.1 for information on how to use POST to edit and maintain you TRMASTER database. The rest of this chapter will discuss the various ways TR can use the data in this file. You must have at least 40K of available memory for the database when TR starts up. If you log enough contacts to use up available memory, the TRMASTER database will disable itself and free up about 40K of memory.

The TRMASTER database is used for the following functions by TR Log:

- Names database - show name of station and include in CW messages.
- Super Check Partial - shows partial calls after entering several characters.
- Possible calls - calls that are similar to the one you are working.
- Initial Exchanges - fills in exchange information based upon the call you are working.
- User defined displays - Show any of the TRMASTER data for information purposes.
- Code Speed - the program can automatically change code speeds to the desired speed.

Each of these functions will now be described in detail:

Names Database

If a name is found in the database for the station you are working, it will be displayed next to the call window for reference. You can also include the name in your CW messages using the appropriate special CW characters shown in section 4.2. Stations that you log that had a name entry in the database will be marked with an asterisk. This is done to keep track of the percentage of people that you knew the name of.

Super Check Partial

The Super Check Partial feature allows you to see a list of callsigns that are in the database that contain the letters you have entered in the call window. To enable this feature, set the SCP MINIMUM LETTERS parameter to 3 or above. When you have typed in the number of letters matching this parameter, you will be shown the calls that match you input. Setting SCP MINIMUM LETTERS to zero disables the Super Check Partial feature. You can adjust this value using the convenient Control-J command.

Dupes will be highlighted in red. As you type more letters, the list will reduce in size only showing the calls that still match your input. You can change the color and background for the duplicate calls with the commands SCP WINDOW DUPE COLOR and SCP WINDOW DUPE BACKGROUND. Refer to section 4.3 for more information on how to program window colors.

Possible Calls

Possible calls are displayed when you have pressed the RETURN key after entering the callsign of a station you are working. They are displayed near the bottom of the screen on a single line. These calls come from both your dupesheet and the TRMASTER database. Possible calls are defined as callsigns that are the same as the call you are working, except for one character. For example, JA1ABD and JA1ADD, or N6TR and N6TRA, are possible calls to each other. If you decide that one of the possible calls displayed is the actual call of the station you are working, you can quickly move the call into the call window using the ; key. This moves the call highlighted by the < > cursor. You can move this cursor with the , and . keys.

You can have all calls in the TRMASTER database eligible to be possible calls, or only those with names, depending on the value of POSSIBLE CALL MODE (either NAMES or ALL).

Duplicates are highlighted in red. You can change the dupe colors with the commands POSSIBLE CALL WINDOW DUPE COLOR and POSSIBLE CALL WINDOW DUPE BACKGROUND. See section 4.3 for more information on color commands.

Initial Exchanges

Some of the data in the TRMASTER database can be inserted into the exchange window as your initial exchange when working a station that appears in the database. This is controlled with the INITIAL EXCHANGE parameter which can be set to NAME, NAME QTH, CHECK SECTION, SECTION, QTH, GRID, FOC NUMBER, ZONE, USER 1, USER 2, USER 3, USER 4, USER 5 or CUSTOM. Refer to section 4.4.4.2 for more information on initial exchanges. Refer to section 6.1 for information on how to put data into your fields. CUSTOM allows you to build an initial exchange using any of the data fields as specified with the CUSTOM INITIAL EXCHANGE STRING command. See Appendix A for details.

User Display

You can chose to have any one of the TRMASTER data fields displayed under the call window for reference when working a station who appears in the database. Use the command USER INFO SHOWN to select the field to be displayed, or select CUSTOM and use the CUSTOM USER STRING command to build a display using multiple data fields. See Appendix A for details on the CUSTOM USER STRING command.

Code Speed

If the TR program finds a code speed entry for the station being worked (in the CQ mode), it can adjust the CW speed used to send the exchange to the speed found in the database. To enable this feature, turn on the CW SPEED FROM DATABASE flag. The CW speed will resort back to your original speed when completing the QSO or starting a new CQ after aborting the QSO.

5.5 CONTEST SIMULATOR

The contest simulator is intended as a way for you to familiarize yourself with the operation of the program. It is a great way to get accustomed to the AUTO SEND CHARACTER COUNT and AUTO CALL TERMINATE functions. It is also a must before trying to use the program in the Sprint. As a side benefit, it can be a fun pastime when the band conditions are poor or there is no contest.

Presently, the following contests are supported by the contest simulator: All Asian, ARRL DX (both stateside and DX), ARRL Field Day, CQ M, CQ WPX, CQ WW, IARU, JA International DX, KCJ, Region One Field Day, Scandinavian, South American WW, Sprint, and the WAE (including sending QTCs).

To enable the simulator, the statement SIMULATOR ENABLE = TRUE must appear in your LOGCFG.DAT file. If you are starting the program without a LOGCFG.DAT file, the program will ask you if you want to use the simulator.

When the simulator is enabled, any CW output ports will be disabled to prevent you from keying any transmitter. All CW is sent at the same speed at which you are sending.

The simulator is triggered by specific keystrokes, not by the actual CW being sent. To call CQ and have the simulator answer your call, you must use either the F1 or F2 function keys or the RETURN key. F9 can be used as a ? which will make a calling station repeat his callsign. You can log a contact with either the RETURN or QUICK QSL KEY.

The simulator is much more fun when you have a name database with plenty of callsigns in it. Otherwise, callsigns are taken from a short list of internal callsigns.

Except for the Sprint Contest, you will only be able to call CQ and have stations answer you. Read Section 5.12 for more tips on using the simulator for the Sprint.

The simulator has a debug mode that will make it work itself without any operator keystrokes. To enable this mode, use the CQ WW contest (or other contest that has an initial exchange that is complete enough to log the contact), put the command AUTO DUPE ENABLE CQ = FALSE in your LOGCFG.DAT file, and type TR DEBUG when you start the program. Pressing any key after starting the program will interrupt the debug mode. Turning off the auto dupe function is necessary so the simulator won't get hung up if a dupe calls. You can turn off all of the CW coming from the speaker by using CW TONE = 0 in your LOGCFG.DAT file. To maximize speed, you might want to put CODE SPEED = 99 in your LOGCFG.DAT file and make your CQ and exchange messages as short as possible. With a fast computer, you should be able to reach rates over 1000 an hour.

5.6 RESTART.BIN FILE

The RESTART.BIN file was created to make restarting the program in the middle of a contest happen very fast. Without the RESTART.BIN file, the program would read in the QSO information from the LOG.DAT file. This takes about 1 second for every 100 QSOs. If you have the PARTIAL CALL LOAD LOG ENABLE feature enabled, it might take even longer. Even with PARTIAL CALL LOAD LOG ENABLE, the initial exchange information will be lost without the RESTART.BIN file.

The RESTART.BIN file contains the following information:

- Contest name
- RESTART.BIN file format version number.
- Dupe sheet totals.
- QSO Totals (as shown in the QSO total display).
- Total number of names sent.
- Total QSO points.
- Code speed.
- Dupe sheet entries.
- Multiplier sheet entries.
- Number partial calls.
- Number initial exchanges
- Partial call list.
- Initial exchange list.

The RESTART.BIN file is normally updated after each QSO. If your disk is slow, you might want to only update it when you exit the program. To do this, set the UPDATE RESTART FILE parameter to FALSE. This can be done from the Control-J menu or in your LOGCFG.DAT file. If the automatic update is disabled and the program stops "unnaturally" (i.e., without typing Alt-X), your RESTART.BIN file will not be current. If the number of contacts that appear to be in the LOG.DAT file is much different than the number in RESTART.BIN, the RESTART.BIN file will be ignored.

If you make changes to your LOG.DAT file and restart the program, your RESTART.BIN file will be ignored by the program. The program looks at the date and times for the files and determines if the RESTART.BIN file is older than the LOG.DAT file. This will also happen if you change the contest.

There is a utility in the POST program that will show you the actual data in the RESTART.BIN file if you are curious.

5.7 PACKET INTERFACE

The program can act as a terminal for your packet TNC. It can also monitor your TNC while you are operating the contest. It will insert spots into the band map and notify you when a spot comes in for a multiplier. If you are not using the band map, the last 10 spots can be reviewed with the Control-U command. If you select a spot to work (either from the band map or Control-U menu), the callsign will be inserted into the call window, and if you have an interfaced radio, it will be moved to the proper frequency. If you have two radios interfaced, you can select which radio to use with the left or right arrow keys (Control-U only).

To set up the packet port, use the PACKET PORT command in your LOGCFG.DAT file. The syntax for this command is shown in Appendix A. The serial port will be set up to communicate to your TNC at 2400 baud. Normally this interface is initialized for 7 bits, 1 stop bit and even parity. Some interfaces require an eight bit connection with 2 stop bits and no parity. This can be configured by using EIGHT BIT PACKET PORT = TRUE in your LOGCFG.DAT file. You can also specify other baud rates up to 9600 baud.

A thirteen line window can activated to be used as your packet terminal. This is done with the Control-B command. To exit this mode, press Control-B again. While this window is up, any characters you type will be sent to your TNC. As a convenience, you can send any of the CQ MEMORY messages by pressing F1 to F10 while the packet window is up allows you to continue CQing while checking the cluster. You can also activate the packet window while an Auto-CQ is in progress (using the Alt-Q or Alt-C commands), however, you will need to exit the window for the next CQ to start.

While you are making QSOs with the program, it is watching the packet port for DX spots. If one is received, it will be displayed in the upper right hand corner of the screen just as if you did an Alt-D dupe check. If you want, you can select all spots or only multiplier spots for processing. This is done using the PACKET SPOTS command. Refer to Appendix A for information on this command.

If you receive a message addressed to your call (as defined by MY CALL in your LOGCFG.DAT file), it will be displayed in the quick command window along with a beep.

The best way to monitor packet spots is with the band map. Packet spots will be added to the band map just as if you had done dupe checks on the stations yourself. You can select any of the spots by executing the Control-End command, selecting the desired spot with the cursor keys, and then pressing RETURN. If you are not using the band map, you can access the last 10 spots with the Control-U command. If you execute a sh/dx command, the data returned will also be added.

If you are using two radios and the Control-U listing, you can choose which radio will be sent to the spot frequency with the left or right arrow keys.

When you select a spot, you will be put in Search and Pounce mode, the station's call will be put in the call window, an initial exchange will be put in the exchange window, and you will be ready to work the station.

If you want to make a packet spot on the packet cluster, you can use the ` character to automatically spot the station you are working, or have just worked. This feature is only available if you have interfaced a radio to the computer so the program knows the correct frequency. If not, use the Control-B command and type in the necessary information.

Some packet interfaces require the program to add a line feed after receiving a carriage return. This can be enabled by setting PACKET ADD LF = TRUE. You can also automatically send a carriage return to the TNC when leaving the Control-B window to make sure the TNC’s input buffer is cleared out. This is enabled with the PACKET AUTO CR command. You can access both of these from the convenient Control-J menu.

If you are using the program with multiple computers and want the Control-B packet screens to be usable from each of the computers in the network, set BROADCAST ALL PACKET DATA to true.

5.8 RADIO INTERFACE

You can interface your Kenwood, Yaesu, Icom, JRC or Ten-Tec radio to the computer and control it from the program. The interface will allow the program to set the frequency and mode of the radio and monitor the frequency the radio is tuned to. Owners of Yaesu and Kenwood radios will find support for split frequency operation and RIT control.

If connected to the computer, a rig's band and mode will be updated if you change bands or modes from the program (using Alt-B or Alt-V). You can also change band/modes from the radio and the program will automatically follow the radio.

To interface your radio, you will need to use the RADIO ONE CONTROL PORT or the RADIO TWO CONTROL PORT command in your LOGCFG.DAT file. This command tells the program which serial port the radio is connected to. You will also need to tell the program which type of radio you are using for each port with either RADIO ONE TYPE or RADIO TWO TYPE. Examples of typical commands are shown:

RADIO ONE TYPE = TS850
RADIO TWO TYPE = FT890 (or FT900, FT920, FT990, FT1000 or FT1000MP)
RADIO ONE TYPE = IC735 (use this for Ten-Tec radios), IC781.
RADIO TWO TYPE = JST245

The default baud rate for radio communication is 4800 baud (no parity, 8 bits and 2 stop bits). If you need to change the baud rate, use the RADIO ONE BAUD RATE or RADIO TWO BAUD RATE commands.

You can QSY the active radio to a specific frequency by typing the frequency into the call window and hitting RETURN. If you are in the Search and Pounce mode, you can tune the VFO frequency with the shift keys. You can control the B VFO of some radios by preceding the frequency with the single dash character. This will also place the radio into split mode. This is very handy when working split on 40 or 75 meter phone.

The RIT control lets you adjust the RIT offset without moving your hands from the keyboard. To QSY the receiver down, press the left SHIFT key, or the right SHIFT key to move up. Pressing both keys at the same time will clear the RIT. The RIT control only works with Kenwood and some of the Yaesu radios.

There is also a special CW character (>) that will clear the RIT when it is included in a programmed CW message. This would normally be used in any CQ message or QSL message.

There are some commands which control the length of time the program waits for a response from the radio before giving up. These are ICOM RESPONSE TIMEOUT, JST RESPONSE TIMEOUT, KENWOOD RESPONSE TIMEOUT and YAESU RESPONSE TIMEOUT. The default values seem to work for all the radios tested to date, but if you are having problems, you might try increasing the time out period.

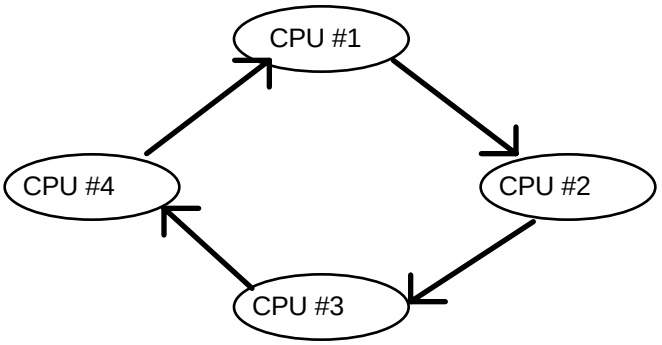
Another parameter controls how close together the frequency and mode commands are for the Icom radios. This parameter, ICOM COMMAND PAUSE, will probably never need to be adjusted however. If you are having problems with your Icom interface, make sure the RECEIVER ADDRESS parameter is correctly set up for the radio you are using. The value must be in base 10, so the proper entry for the 761 is 38 (not 26 which is the base sixteen representation of the address). The factory default addresses for other common Icom radios can be found in Appendix A under RECEIVER ADDRESS.

Some of the older FT-990 and FT-1000 radios need a firmware upgrade from Yaesu to work properly. You will need version 1.30 or later for the FT-990, and version 6.0 or later for the FT-1000D. You can determine your firmware version by holding down the 1.5 and 7 MHz buttons on the front panel while powering on the radio. After a nice light show, you will be shown the firmware versions. This procedure does not reset any of your memories. The FT-890, FT-920 and FT1000MP radios are all okay.

5.9 MULTI OPERATION

TR Log supports connecting two or more computers together to form a network. The network supports transmission of QSO information, packet data (both ways), new band map entries, operator messages and clock set data. Only one serial port per computer is required for the network. Use the MULTI PORT command to enable the network and specify the port number you want to use (SERIAL 1 to SERIAL 4).

Error checking and automatic retries make the network reliable even with a modest amount of RF interference or a computer which is down for a few minutes. With a baud rate of 4800, there is enough bandwidth in the system for total QSO rates over 2,000 per hour. A typical network would look like this:



The serial output (DB-25 pin 2) of CPU #1 connects to the serial input (DB-25 pin 3) of CPU #2. Then the serial output pin of CPU #2 is connected to the serial input pin of CPU #3 and so on. You only need to connect the serial input and outputs with appropriate grounds. No other control signals are necessary. If you have a DB-9 connector, the in and out pins are reversed from the DB-25 pin-outs (i.e. pin 3 is out and pin 2 is in). Ground is on Pin 7 of a DB-25 or pin 5 of a DB-9. Use should shielded cable for long runs.

Messages sent around the loop contain a checksum. If a message doesn't make it around the loop, a retry will be sent. The time the program waits before sending the first two retries can be adjusted for optimum performance. The value MULTI RETRY TIME should be set to about 3 seconds per computer in the loop.

Depending on the SEND QSO IMMEDIATELY flag, a QSO will be sent to other computers in the network either just after it is worked, or when it moves off the top of the editable log window. When sending QSOs immediately, it is best not to use the Alt-E editor to make changes to your log, as the changes will not be sent to the other computers. Use the Control-N command instead to put a note in the log. You can easily find these notes after the contest and make the needed changes. If you are not sending QSOs immediately, you will not see the QSOs other stations are making. This allows you to have full access to your last five QSOs for making any changes.

If you only want to pass QSOs that are new multipliers, put the command MULTI MULTS ONLY = TRUE in your LOGCFG.DAT file. If you are sending QSO numbers, you might want to use the QSO NUMBER BY BAND parameter so you can send monotonic QSO numbers on each band. If one of the computers is connected to a packet node, you can use the Control-B window from any of the networked computers if BROADCAST ALL PACKET DATA is true (the default). Beware that packet commands or messages are not sent on the network until a carriage return is found. Therefore, want to issue TNC commands, you would have to press control-C and then RETURN to get a prompt displayed.

If you would like to send a message to any computer, or all of them, press the double quote key. A window will open up allowing you to input a message. You must start the message with either the band you want the message to go to (i.e., 80) or ALL to send it to all of the stations. After putting a space after the destination, type in the message and press RETURN. The message will instantly appear at the appropriate station(s). Messages sent between computers can be logged to the file INTERCOM.TXT if the INTERCOM FILE ENABLE parameter is set to TRUE. You can view the last five messages with the Control-Home key.

If you are having problems getting your network to work, you might find the built in terminal feature useful. To use this, start the program by typing **TR LOOPBACK.** See section 7.2 for more information.

The MULTI INFO MESSAGE command allows you to specify information that is available to all of the other computers in the network. Put a $ in the message to show your CQ frequency or the fact that you are in S&P. Use % to show your rate.

There are two ways to view the MULTI INFO MESSAGES for all of the computers on the network. If you have the band map enabled, they will appear at the bottom of the band map window and be displayed all of the time. Otherwise, you can use the Control-E command to view the messages in the editable log window.

5.10 DVP OPERATION

The TR Logging Program supports the CT DVP board. This allows you to use prerecorded voice messages much as you do for CW, and to record snippets of receiver audio for playback later or immediately.

To enable the DVP, you need to put the command DVP ENABLE = TRUE in your LOGCFG.DAT file. You also need to run the DVPTSR program before starting the logging program.

It is also a good idea to set up a RAM DISK so the DVP messages can be accessed without affecting your hard disk. It should be a minimum of 1 megabyte, but 2 megabytes is better. The following command will set up a two megabyte RAM DISK when put in your CONFIG.SYS file:

device=c:\dos\ramdrive.sys 2048 512 64 /e

The /e makes the ram disk use extended memory. Use /a for expanded. 2048 is the size in kilobytes.

To make the DVP use the ram disk, put the following command in your LOGCFG.DAT file:

DVP PATH = D:\ (Assumes your ram drive is assigned D:)

To program the voice messages, put yourself in the SSB mode and press Alt-P. The function key and other messages will be shown with default DVP file names. You can select the file you want to edit by pressing the appropriate key, then by using Alt-W to write to the file, and Alt-R to review the contents of the memory. You should never need to change the default file names, but you can if you want to. There is a short cut to program either the CQ or Exchange function key memories F1 to F10. You can program these by pressing Control-F1 to Control-F10 and then ESCAPE to stop recording. If you press your footswitch down while recording, your message will also be transmitted.

The DVP can be turned off the same way CW can be controlled by using the Alt-K command.

The backcopy function allows the last 30 seconds of receiver audio to be at your fingertips for listening to after the contest, or repeated again immediately. To enable the backcopy function, you can use the Control-J menu.

When the backcopy feature is active, you can save portions of the previous audio to a file and listen to it later. This is done with the keys Alt-6 through Alt-0. Alt-6 will save the last five seconds of receiver audio to a file. The file name will be the current QSO number with BCP as an extension. Alt-7 saves 10 seconds, Alt-8 saves 15 seconds, Alt-9 saves 20 seconds and Alt-0 saves the last 30 seconds of audio. If you save more than one file at the same QSO number, it will have a sequential letter after the QSO number.

To listen to these files, put yourself in the SSB mode and use the Alt-Equal command to view the files available. You can listen to or delete any of them. These files are kept in the working directory (i.e., the directory you were in when you started the TR program) so that they won't take up room in your RAM DISK.

Another backcopy feature is an instant replay of the last few seconds of receiver audio using the Alt-1 through Alt-5 keys as follows: Alt-1 - 1 second, Alt-2 - 2 seconds, Alt-3 - 4 seconds, Alt-4 - 8 seconds, Alt-5 - 16 seconds. The backcopy record function continues to record even when doing an instant replay.

5.11 BAND MAP OPERATION

Band mapping is one of the more powerful tools the program can give you for efficient Search and Pounce operation. Not only does it help you quickly identify stations you have already worked, it also shows you what part of the bands you have recently scanned. To use this feature, you must have either an EGA or VGA display. To enable the band map, set BAND MAP ENABLE = TRUE in your LOGCFG.DAT file.

The band map feature displays a list of stations sorted by frequency for the active band. Callsigns are entered when you do a dupe check for them, make a Search and Pounce QSO with them, or from information received from the packet interface. The calls will stay on the display for 60 minutes and change color to indicate how long it has been since the call was spotted. An asterisk next to the callsign indicates that you have already worked the station. The frequency is shown along with the callsign. The band map can also store transmit frequencies which come from packet spot. Entries are marked with a small "x" if QSX information is available. Entries marked with a happy face are new multipliers at the time they were added.

The band map works best when you have an interfaced radio so the program can read the frequency you are tuned to. If you want to use the band map without an interfaced radio, the program will have to ask you for the frequencies each time you add a new entry. If you want to disable being prompted for frequency information, set ASK FOR FREQUENCIES to false. In this case, only packet entries will be shown.

When you are in the Search and Pounce mode and tune in a station already in the band map, the entry will blink. Normally, you have to be within 200 hertz of the station for this to happen, but you can adjust this value with the BAND MAP GUARD BAND command. Also, the callsign and exchange information for an existing entry will be shown to you in the call window and you can update the entry simply by pressing the space bar. However, if you set BAND MAP CALL WINDOW ENABLE to false or are using the band map with two radios, this feature is disabled. You can still update the time stamp for a blinking entry with Control-Y however.

When using the two radio mode, you will be shown the band that you have performed your last dupe check or Search and Pounce QSO on. Also, if you start tuning either radio up or down the band, the band map will switch to the band you are tuning on.

When the call is displayed, it will be white, after a minute it will turn to yellow and then gradually fade into the background. After 60 minutes, the call will disappear. This helps give you a quick visual picture of which parts of the band you have most recently visited.

You can send your radio to the frequency of a band map entry. Use the Control-End key to put a cursor and move it to the desired entry with the arrow keys. Pressing RETURN will set your radio to the frequency of the selected station. Pressing DELETE will delete the entry. Use ESCAPE to exit the band map. If the entry also had QSX information, your radio will be put into split mode and the proper transmit frequency loaded.

If you do a dupe check (by pressing the SPACE BAR), on a station already in the band map, the previous entry will be deleted and the new one will be displayed. This is intended to keep multiple entries from appearing as a station moves around. If you spot a different station on the same frequency as a previously mapped station, the new station will overwrite the old station's call.

If you call CQ on a frequency, it will also be put on the map, along with the QSO number you were at when CQing. This helps complete the map and show you the history of what you have been doing, and where.

The band map is saved when you exit the program in the file BANDMAP.BIN. This means you won't loose the band map data if you have to stop and restart the program.

5.12 OPERATING THE SPRINT

The NCJ CW Sprint contest presents one of the toughest challenges to a real time logging program. There are several important shortcuts that have been programmed that will help you operate the CW Sprint efficiently. Some of them are also useful in the SSB sprint if you are using a voice keyer. The simulator can be used to understand how these all work.

During the sprint, you will switch between the CQ and the Search and Pounce mode quite often. The typical mode of operation is to look for a station to call, work him, have someone call you, work them and then go searching up the band again.

Often, you will want to switch to the search and pounce mode and send your call, all in an instant. This happens when you are scanning up the band and have found a place you want to drop your call. You can do this by simply pressing the space bar. This works if you are in the CQ mode and there are no characters in the call window. If you know the callsign of the station you are calling, you can type it in while your call is being sent. After you type it in, you will want to type Alt-Z. This will move the cursor down to the exchange window and put in any initial exchange information the program might have for the station you are working (i.e., name and QTH). You may be able to log the QSO by entering just the station's QSO number.

When you have completed your search and pounce QSO, you may be called by a station that you need to work in the CQ mode. In the sprint, the SPRINT QSY RULE variable is set to TRUE. This means the program will automatically switch from the search and pounce mode to the CQ mode when the search and pounce QSO is completed. If you also turn on the AUTO SEND CHARACTER COUNT feature with the AUTO CALL TERMINATE, you can very quickly respond the a calling station. "TU" is a good QSL MESSAGE to have. If no one answers your QSL MESSAGE, simply hit RETURN again and your F1 CQ will be sent (for example: NA N6TR).

Another useful feature is the AUTO S&P ENABLE. When this is TRUE, the program will automatically go into the S&P mode if you have moved the VFO more than 1 kilohertz in a second.

The VISIBLE DUPESHEET is enabled when operating the Sprint. This allows you to see the stations you have worked without taking the time to type in their callsigns. To maximize the number of calls that can be shown, the multiplier total number is covered up. To see this number, execute the Alt-E command, followed immediately with an ESCAPE. If you have a VGA monitor and are not using the band map feature (which is somewhat useless in the sprint anyway), the visible dupesheet will be shown in the lower half of the screen.

The simulator can be used to become familiar with these features. You can call CQ (using F1 or F2) and a station will come back. After you work this first station, a second station will call him. When that QSO is completed, you can call the second station and take control of the frequency back. To do this, use the SPACE BAR to send your call and go into the S&P mode. While the station is coming back, type his call and then press Alt-Z. Type in the missing information in the exchange window, then send your exchange by pressing RETURN. These specific keystrokes are required when using the simulator and demonstrate the most efficient way to use the program. It should be noted that this is not a legal method of QSYing during the actual sprint.

There have been some sprint like contests sponsored that required you to send the name received during your previous QSO. This can be done using the (character in your CW message. If you want to define the name to send for your first QSO, use the MY NAME command in your LOGCFG.DAT file. The name you specify will be sent during your first QSO.

5.13 VHF CONTEST OPERATION

Several features of the program have been tailored for the VHF/UHF contest operator.

The first allows you to work rovers as they change grid squares. It is assumed that rover stations will be logged with **/R** at the end of their call. When you work a rover for the second time on a given band/mode, you will be shown a list of grid squares for which you already have QSOs. If the grid square you enter into the exchange field is different, you will receive full QSO points for the QSO. If it is a duplicate grid, you will receive zero QSO points for the contact.

When working the station in a new grid square, you can simply type the new information in over the initial exchange entry from the previous grid square.

Another feature is the addition of FM as a mode. This allows you to identify which QSOs took place on FM as opposed to SSB. However, the QSOs are treated just like SSB QSOs for dupe and multiplier checking. Use the Alt-M command to toggle to FM. This feature is enabled only when on the VHF/UHF bands.

You can disable the HF bands with the command HF BAND ENABLE. This is the default when selecting one of the VHF contests.

The program allows operation on all the UHF bands, including light.

5.14 FARNSWORTH CW

The TR Logging Program has several features that allow you to use farnsworth CW methods when sending messages from memories or from a file when using the TR SENDCW command (see chapter 7.2).

Farnsworth CW simply uses more space between characters to achieve slower CW speeds, while using a constant speed for the characters themselves (typically 18 WPM). This is useful for training purposes and in some situations on the air.

The FARNSWORTH ENABLE command turns on or off the farnsworth effect. The command FARNSWORTH SPEED controls the code speed at which the farnsworth feature starts to work at. As you decrease your code speed from the farnsworth speed, you will find more and more space being added between CW characters. The characters will be sent at the displayed code speed, so your actual code speed will be less than that displayed.

The default for FARNSWORTH SPEED is 25 WPM. If you want the farnsworth effect to be more pronounced, increase this value.

You can dynamically control both of these parameters during the process of sending CW from a memory or file. The following commands are available:

Control-[2 - Invert FARNSWORTH ENABLE value.
Control-[3 - Set Farnsworth Speed to 25 WPM.
Control-[4 - Set Farnsworth Speed to 35 WPM.
Control-[5 - Set Farnsworth Speed to 45 WPM.
Control-[6 - Set Farnsworth Speed to 55 WPM.
Control-[7 - Set Farnsworth Speed to 75 WPM.
Control-[8 - Set Farnsworth Speed to 95 WPM.

The commands can be entered when editing a CW message with the Alt-P command by pressing Control-P, then Control-[, and then pressing the integer shown (2 through 8).

For example, if you wanted to send code characters at 18 WPM, you would set the code speed to 18 WPM, then adjust the Farnsworth Speed to result in the desired code speed. The higher the Farnsworth Speed, the slower your CW speed will be.

These commands may also be embedded in a text file that is being sent with the TR SENDCW command. See chapter 7.2 for more information on the SENDCW feature.

5.15 DVK OPERATION

A DVK (Digital Voice Keyer) may be used with TR Log. DVKs interface to the computer via a parallel port. You tell the program which port to use with the LOGCFG.DAT command DVK PORT = #. Legal values are 1 to 3.

If you are using an external DVK unit, you will need to interface a parallel port to the unit. Typically this means wiring 4 control signals, and ground from a parallel port to the unit. The appropriate pin numbers are shown in Appendix B.

If you are using an internal DVK unit (like the W9XT card), you won't have to make a cable, but you will still need to specify which port number the card is configured for. The W9XT card can be programmed totally under software control without using the TSR program supplied with it. This helps free up memory. The W9XT card can also be programmed using the Alt-P command. You do not need to install the TSR supplied with the card to program memories.

When you tell the program it is using a DVK, it initializes the SSB Function Key Memories with appropriate values as follows:

CQ MEMORY F1 = DVK1
CQ MEMORY F2 = DVK2
CQ MEMORY F3 = DVK3
CQ MEMORY F4 = DVK 4
CQ MEMORY F10 = DVK0 (aborts message in progress).

This means memory 1 would be played if you press F1 in the CQ mode. Memory 2 if you pressed F2 and so on. Pressing F10 will abort a message in progress. The escape key can also be used to abort a message, as long as it was started less than 4 seconds ago. If you want other memories to play any of the messages, program the appropriate name for the memory.

The W9XT card comes standard with CW output capability. If you want to add PTT and paddle support to it, you can modify your card using the procedures shown in Appendix C.

5.16 FOOT SWITCH OPERATION

A foot switch can be interfaced to your computer and used to help make the program more efficient. The foot switch connects to a parallel port as shown in Appendix B. Some computers might require a pull-up resistor similar to the one used for the paddle input. The footswitch needs to be a normally open switch that closes when pressed. The program de-bounces the switch, so you should not see action occur when letting go of the switch.

The parameter FOOT SWITCH MODE will determine what will happen when you press the foot switch. The following modes are currently supported. You can change the mode in the Control-J menu.

CONTROLENTER Acts as if the Control-Enter key was press to advance the QSO one step without sending any CW.

DISABLED This disables any foot switch action.

DUPECHECK (or DUPE CHECK) Executes the Alt-D command when the foot switch is pressed.

F1 Acts just as if you had pressed the F1 key in either CQ or S&P modes.

LAST CQ FREQ Returns you to the last frequency you called CQ on when pressed.

NORMAL The normal mode makes the foot switch behave just as if it was connected to the PTT of the active transmitter. This allows you to use the TR program to route your foot switch to the proper radio.

QSO NORMAL In the QSO NORMAL mode, the foot switch is used to advance the normal QSO process one step. This means hitting the footswitch will behave just as if you pressed the RETURN key.

QSO QUICK Same as QSO NORMAL, except when finishing a CQ MODE QSO, the QUICK QSL MESSAGE will be used instead of the QSL MESSAGE.

SWAP RADIOS Acts just as if you pressed the Alt-R key.

START SENDING Acts just as if the START SENDING NOW KEY was pressed. This will start sending the characters you have in the call window, but allow you to enter more until you press RETURN.

6.0 POST CONTEST LOG UTILITIES

Now that you have finished a contest, the POST.EXE program will provide you with the functions you need to submit your entry. It can check your log for any duplicates, generate a rate sheet and make a nice looking log with page numbers and totals on each page. It also gives you full QSL label support, the ability to generate ARRL compatible files and dupesheet, and show the geographical distribution of your contacts.

When you start the POST program, you will be presented with a menu. From this menu you can change the name of the active log file that the other POST functions operate. The default file name is LOG.DAT. You can specify a different log file by using the F command from the menu, or by including the name of the log file after typing POST before starting the program. The other menu choices will take you to either the QSL menu, the LOG menu, the REPORT menu, or the UTILITY menu.

The QSL menu allows you to perform various QSL functions. Each choice displays an explanation of operation and steps you through the process. There are three different QSL label modes. One will print a label for each contact. Another will print one label per three contacts with labels sorted by country, and the third will print labels for a specific station (a QSL manager's dream come true). The labels are 3½ by 15/16 Inches. Avery number 4410 or Dennison 42-451-1 work great and can be found at most volume warehouse stores (e.g. Costco). There is a QSL label estimate command that will tell you how many actual labels will be printed when combining multiple QSOs on one label. It will also tell you how many people worked you on 1 to 6 bands.

The LOG menu contains the operations you might want to do to your log. This includes dupe checking, multiplier verification, creation of band and mode logs with running totals, creation of an ARRL compatible disk file, and other similar functions. One of more useful functions is the C command that will allow you to generate logs with page totals for valid QSOs, QSO points and multiplier totals. Again, there is a detailed explanation of each function when you start it.

The REPORT menu allows you to generate the different reports the POST program can provide. This includes summary sheets, dupesheets, continent distribution charts, rate sheets, and multiplier lists. You can even generate a report showing QSOs where the logged zone is different from the standard zone for the callsign.

The UTILITY menu provides access to several utilities that are handy to have. These include maintaining your TRMASTER database (see section 6.1 for more info), appending log files to history files and the old name editor allowing you to access your NAMES.CMQ names database.

There is also a procedure (POST CONTEST LOG MASSAGE) that can be executed from the first menu. It will step you through the recommended procedure after completing a contest. All of the steps executed by this procedure are accessible individually if you desire.

6.1 MAINTAINING YOUR TRMASTER DATABASE

Note: POST commands are abbreviated. For example, to explain how to get to the TRMASTER editor, you would start POST, then press U for the utility menu, then E for the TRMASTER menu, then E for the TRMASTER editor. This would be shown as POST U E E in the following discussion.

The POST program has the features you need to create, maintain and edit your TRMASTER database. Section 5.4 details the different data fields that are contained in the database. The following sections explain the different operations you can perform with the POST program on your database.

Converting my CT compatible MASTER.DTA file to TRMASTER format

Use the DOS copy command to make a copy of your MASTER.DTA file that is called TRMASTER.DTA (COPY MASTER.DTA TRMASTER.DTA). Put this file in the same directory as your POST.EXE program file. There is no conversion necessary as the formats are the same. However, once you add some data other than callsigns to your TRMASTER.DTA file, you cannot reverse the process.

Convert my old NAMES.CMQ or NAMES.CMP database to TRMASTER

This is often a good way to create your first database if you do not initially have a MASTER.DTA file. However, if you have a TRMASTER.DTA file already, the process is still the same. Enter the old name editor (POST U N). Save your data to an ASCII file using the F command. Then use the POST U E F N command to load the file.

Load data from a LOG.DAT file or ASCII file

There is one general purpose routine that can process any LOG.DAT or other ASCII log file and move data into the TRMASTER database. This procedure is executed with the command POST U E F F. Following the instructions should allow you to move callsigns and data. If there is more than one data field in the file that you want to move, you will have to execute the procedure multiple times (once for each field).

When loading data from any file, you need to decide if you want the data in the file to overwrite any existing data in your database. You can control the overwrite enable for each data field individually. Use the POST U E F O menu to view and edit this overwrite bits.

Whenever a callsign is found in the file that already exists in the database, it will have its Hits value incremented (unless you have turned off the Hits override flag). This count can be used to filter out callsigns that only appear in one or two logs. Use the POST U E D command to delete these callsigns.

Viewing and Editing TRMASTER Data

The POST U E E command allows you to view all of the data fields for any call in the database. It will also let you edit any of the fields.

Name Editor

The POST U E N command allows you to edit the names in the TRMASTER database using the same type of editor as the old POST U N function. This is much more efficient than the POST U E E editor if you are only working with names. This is also the only way to delete a callsign from the database.

6.2 GENERATING YOUR FINAL LOG

Note: POST commands are abbreviated. For example, to perform a dupe check on your log, you would start POST, then press L for the Log Menu, then D for the Dupecheck command. This would be shown as POST L D in the following discussion.

The POST program was designed to be self documenting through the use of a simple menu structure and complete descriptions of each function before they are performed. However, until you have used it once or twice, it can be a frustrating experience trying to figure out which one of the many post contest operations need to be performed on your log. This section is intended to show you the exact steps you would take to generate the post contest documentation required for a typical contest.

Step One: Make sure your QSOs from LOG.TMP are written into LOG.DAT.
When TR is running, it keeps your log in two files: LOG.DAT and LOG.TMP. The LOG.DAT file has all but the last five QSOs of your log in it, and LOG.TMP has those last five QSOs. If you fire up TR and see some QSOs in the editable log window, then you need to execute the Alt-U command to flush these into the LOG.DAT file.

Step Two: Check for dupes.
There are several reasons why your log may contain duplicates. If you change a callsign in the middle of a QSO, it is possible it was a dupe and will be logged with zero QSO points. Also, if you left off part of a portable callsign, TR will not consider the calls to be the same. You can execute a thorough dupe check on your log with the POST L D command. This process will clearly mark the dupes in your log.

Step Three: Check your multipliers.
If you edited any of your contacts, you might have affected the multiplier status of some of the QSOs. POST can check your multipliers to make sure you haven't duplicated any, or in some cases to make sure you haven't forgotten to take credit for some. Execute the POST L M command to perform this check.

Step Four: Summary Sheet
The command POST R S will generate a summary sheet. You will need to do this in the same directory you operated the contest in so POST can examine your LOGCFG.DAT file. The summary sheet will be saved in the file SUMMARY.DAT. You can edit this file with a text editor if necessary.

Step Five: ASCII LOG SUBMISSION
Most contests allow you to send you log in over the internet as an ASCII mail message. For all but the ARRL contests, you can just send the SUMMARY.DAT file and the LOG.DAT file. The ARRL has some small differences they like to see in the format. These can be made with the POST L A command.

There are many other things you can do with your log. To review them, fire up the POST program and look at the various menus. If you select a function, you will be shown a paragraph explaining what the function will do before it actually does it. If you don't want to proceed, you can go back to the menu by pressing the ESCAPE key or the RETURN key with no input.

7.0 TROUBLE SHOOTING GUIDE

This section has solutions to some of the most common problems' users have had with the program. It is intended to keep my phone from ringing too much just before a contest. However, if you still are having difficulty with the software after reading this section, please feel free to give us a call or send e-mail.

1. The program stops executing before initializing. When this happens, there will usually be an error code displayed. Check section 7.1 to see what the error code means. In most cases, the program is halting because there was not enough memory available for it. Make sure your memory is not being used up with any TSRs (i.e., sidekick) and that you are not running the program from a DOS shell of another program (i.e., XTREE). You might also be able to free up some of your lower memory by running the MEMMAKER program provided with DOS.

2. The keying interface does not work. The keying interface is disabled when using the simulator.

3. The paddle interface just sends dits or dit-dah-dit-dah. Some computers do not have a pull-up resistor on the parallel port inputs. It might be necessary to provide pull-ups to +5 Volts on the two inputs used by the paddle. This can be done by connecting a 10K resistor from each paddle input to pin 14 on the parallel port connector. Pin 14 is held at +5 volts and will pull the inputs up to a high logic level when the paddle input is open.

4. My serial interface for packet or radio doesn't work. You may need to use a 3 wire cable to connect to your TNC to your serial port with the RTS and CTS connected together on the TNC or radio side of the cable. TR doesn't turn on the RTS or CTS signals so that they can still be used for CW and PTT control. Some TNCs or Radios need to have these signals asserted in order to send data to the computer. Appendix B shows the pin numbers to jumper together to do this.

5. The program controls my radio okay, but is not correctly reading the frequency. There is a feature in the program that will record all the data coming back from the radio. This data can be used by N6TR to try and understand the problem. To enable recording, start the program with TR RADIODEBUG instead of TR. Let the program run for a minute or two and occasionally QSY the radio (make a note of the frequencies you are on). Send this information along with a copy of the file RADIO.DBG to N6TR. This file is a binary file, so if you e-mail it, make sure to uuencode it first.

This problem may also be caused by the hardware handshaking signals RTS/CTS. TR doesn't need these signals which allows the same serial port to be used for both radio interface and CW interface. However, your interface may require that you tie RTS to CTS in order for it to send data.

Some radios might need more time to respond to commands from the program. Try increasing the response time-out values for the radio you are interfacing (KENWOOD RESPONSE TIMEOUT, ICOM RESPONSE TIMEOUT or YAESU RESPONSE TIMEOUT). Also try increasing the ICOM COMMAND PAUSE parameter. These can be found in the control-J menu.

If you are using an Icom or Ten-Tec radio, make sure you have the proper RECEIVER ADDRESS specified. This number needs to be in base 10, not base 16.

6. The multi network isn't working. If you are having problems with a serial port or the multi network, you can make the program come up and act as a "dumb terminal" connected to any of the serial ports. To do this, start the program by typing TR LOOPBACK. The program will ask you which port you want to connect to and at what baud rate. Press the ESCAPE key to exit. To test a multi network, you should see your keystrokes echoed on the next computer in the loop.

7. How to I get a display of the remaining zones instead of remaining countries? Use the Alt-G command to cycle between the different available remaining multiplier displays.

8. How can I make the program run under windows? While both TR and POST can be run under windows 3.1, only POST can run in a window in windows-95. At this time, you will need to exit Windows-95 and boot up in the DOS mode to execute the TR program. However, it is suggested that you always run TR in DOS, even in the case of windows 3.1.

7.1 RUN TIME ERROR CODES

There are some errors that can stop the program from executing. Some of these errors are not explained except for an error number. The following chart may help you understand why the program is terminating.

WARNING!!!

If a runtime error occurs which stops the program, you must reboot your computer by either pressing Control-Alt-Delete, pressing a reset button, or power cycling the computer. This will restore the normal DOS interrupt vectors. If you do not do this, your computer may hang, or your system clock will operate incorrectly.

Error Code	Condition
100	Disk read error
101	Disk write error
105	File not open for output
150	Disk is write protected
152	Drive not ready
154	CRC error in data
156	Disk seek error
157	Unknown media type
158	Sector not found
159	Printer out of paper
160	Device write fault
161	Device read fault
162	Hardware failure
201	Range check error
202	Stack overflow error (out of memory)
203	Heap overflow error (out of memory)
208	Overlay manager not installed
209	Overlay file read error (bad TR.OVR or POST.OVR)

If you get an error code when initially starting the program, make sure you have no TSRs installed (i.e., Sidekick). These can use up your memory and not leave enough for the program to execute.

If you still can't figure out how to fix your problem, please feel free to contact us for assistance.

7.2 SPECIAL MODES AND USEFUL UTILITIES

There are some special commands that you can start the TR program with. These enable various special modes or utilities. To enter one of these commands, type TR and the command name when starting the program. In some cases, you will also need to type in a filename after the command (i.e., TR SENDCW TESTCW.TXT).

B64DECODE - Will convert a file that has been encoded using BASE64 to a binary file.

BANDMAP - Inserts 10 entries into the band map when the program starts up for diagnostic/demo purposes. Some of the entries will contain QSX information.

DISTANCE - Will tell you the distance, in kilometers, between two grid squares.

DEBUG - Puts the program in a special mode where the simulator can work itself. You need to select a contest where the initial exchange is sufficient to log the QSO (CQ WW) and turn off AUTO DUPE ENABLE CQ so a dupe won't hang up the process. This feature put the program through the motions of working lots of people for testing purposes. It also makes a cool way to attract attention at trade shows. For maximum rate, set the CW TONE = 0. Pressing any key after starting the program will stop the debug process. You can restart it by typing DEBUG in the call window and pressing RETURN. Note that the band will change occasionally so all of your contacts aren't on the same band.

FINDFILE – The FINDFILE start command will search for the filename specified using the same process for locating files that TR will use. For example, if you try TR FINDFILE TRMASTER.DTA, it will show you which directory the TRMASTER.DTA file will be loaded from. The program looks first in the active directory, then in the directory where the program is executing, and finally in the directories specified in the PATH statement of your AUTOEXEC.BAT file.

FOOTSWITCHDEBUG - Allows you to test the footswitch feature of the program by touching the paddle instead of having to connect to the footswitch pin on the parallel port.

GRID - Converts latitude and longitude to six digit grid square. Used to determine the proper setting for MY GRID or GRID MAP CENTER.

HELP – Shows a list of all of the start up commands for reference.

HEXDUMP - Allows you to view a binary or ASCII file, 256 bytes at a time. Both the hex and ASCII representations of the data are shown. You can move around using the page-up/down keys, jump to the end or beginning of the file, or search for a specific data string. This utility is very handy for looking at .DBG files generated by the RADIODEBUG or TXDEBUG mode. The escape key exits the program.

HP - So, you are on HC8 and need a calculator to calculate the length of your 30 meter dipole. Type TR HP and you have one. It uses reverse polish notation.

LC - If you are using an antenna analyzer for measuring capacitance or inductance, there is a formula which can be used to calculate one from the other when you have found the resonance frequency. TR can perform this calculation for you by typing TR LC.

LOOPBACK - Simulates a dumb terminal. Asks which serial port and baud rate you want to use. This is very helpful when debugging network connections. You should see characters entered on the keyboard echoed on the next computer in the network. Once you have this working for all the computers, the network should come up without any problems.

NETDEBUG - Requires VGA mode availability. Puts the program in a mode where all data to/from the computer over the network is logged in the files NETOUT.BIN and NETIN.BIN. Also, a display is shown with the entries in the message sent buffer that have not yet been acknowledged.

PACKET - Puts ten entries into the packet spot display (Control-U) for diagnostic/demo purposes. Some of the entries will include QSX information.

PACKETFILE – Requires a filename to be specified. The program will take the file treat it as if it was data being received from the TNC. This is a useful command to test the network's ability to handle large amounts of data from the packet port.

PACKETSIMULATE - Puts the program in a special mode where simulated packet spots are sent to the packet port once per second. This is a useful way to exercise the packet interface when using multiple computers.

PASSTHROUGH - The PASSTHROUGH command will put the program in a mode where two serial ports are “tied” together. Data from one port is passed through to the other and visa-versa.

PORT - Shows the I/O port addresses TR thinks your serial and parallel ports are located at.

RADIODEBUG - Puts the program in a mode which records any data received from an interfaced radio into the file RADIO.DBG. This file can be very helpful in understanding why a certain radio isn't interfacing correctly.

READ - Requires a filename to be specified. The file must be a TR .DAT file, but must have a different name than LOG.DAT. The program will extract the band, mode, date, time, call worked and exchange information from each QSO and "rework" the contest. This can be useful if you need to rescore the log (recalculate QSO points or multipliers), or for testing purposes.

SENDCW - Requires a filename to be specified. This will have the program send the characters found in the file on CW. The Page-Up/Down keys can be used to vary the CW speed. This feature is useful to people trying to make CW pileup tapes without any sending errors.

SLOW - Reduces the frequency of real time interrupts the program generates. This might be useful if you are using a very slow computer and have many serial ports enabled (packet, radio interface and network). It also affects the CW speed resolution in that you might not notice a difference in the speed of CW when changing the code speed by small amounts.

TALKDEBUG - Similar to RADIODEBUG. Data sent from the program to the radio is collected in TALK.DBG. This information can be used to verify the commands being sent to the radio.

TRACE - This is a debug feature that is useful when having problems logging a contact. When turned on, the trace feature will display a number of special characters during the process of logging a QSO. Each character indicates that a specific logging task has completed. Seeing where the process stops will provide useful information when trying to isolate a problem.

UUDECODE - Will convert a uuencoded ASCII file to a binary file. If you are receiving updates to the TR program over the internet, you might need to have access to a uudecode program if your mail program doesn't automatically decode the file upon receipt.

8.0 PROGRAM UPDATES

TR Log is constantly being updated to add new features and enhancements. It is strongly suggested that you keep current with the latest version so you can take advantage of them. You are eligible for free updates for one year after you initial purchase. After that, you may extend your access for $15 per year, or $100 for a lifetime subscription (international prices may vary somewhat).

Keeping current by paying your subscription helps keep those new features coming. The more contributions I receive, the easier it is for me to convince my wife that enhancing the program is worthwhile.

There are three ways to receive updates:

- E-mail messages over the internet - uuencoded.
- Using the N6TR BBS - 24 hours per day - (503) 658-6116
- Diskette from your distributor

Internet

Most of our users get their updates automatically over the internet via an e-mail message as soon as each release is available. The file is uuencoded so that it can be handled as a normal text mail message. The length is approximately 600K-bytes, so you need to be able to handle large files to take advantage of this service. To get on the distribution list for this service, send your request to the person you purchased the program from.

You can use the TR program to uudecode the file. Type TR UUDECODE filename. You should end up with a zipped file that contains all the program files.

A good way to keep up to date on new releases is to subscribe to the TRLOG reflector on the internet. To subscribe, send an e-mail message to trlog-request@contesting.com with the text *SUBSCRIBE*. To send a message to the reflector so everyone else can see it, send your message to trlog@contesting.com. This is a good place to get technical support from experienced users or the program author and sales staff. You can access the messages which have been posted to the reflector using the world wide web. The address is http://www.contesting.com/_trlog/. This is a hypermail summary which provides an easy way to find old messages. Many thanks to W4AN for providing this service. Check out his Contesting On-Line service at http://www.contesting.com. You can find a picture tour of N6TR and other contest stations there.

You can get the latest copy of the manual via anonymous ftp to jzap.com. Look in the pub/n6tr directory and download the file trmanual.zip. The manual is in Word for Windows format.

BBS

The 24 hour BBS number is (503) 658-6116. The baud rate is up to 28.8K and all popular transfer protocols are supported (including ZMODEM). When you first log into the BBS, you will be asked a number of questions.

It is normal for the BBS to not find your name in the database when you first login. You will need to log in once, set up your password, then send a mail message to the SYSOP asking for access to the current version. Log in the next day to get access to the updates.
Until you do this, you will be able to see the update files, but not download them. The BBS will say it could not find the files.

The CURRENT directory will have the latest version of the program in zipped format. The file name is in the form ALLxxx.ZIP, where XXX is the version number. You will also the latest manual in Word for Windows format (MANxxx.ZIP).

Diskettes

If you can't get updates over the internet or BBS, you can request a new disk from your distributor. There will be a small charge to cover postage and handling. You can also get the latest manual for a nominal fee.

APPENDIX A - LOGCFG.DAT COMMANDS

ADD DOMESTIC COUNTRY Values: Valid country ID Default: None

When the program is handling some countries as domestic multipliers and the rest of the countries differently, you can add countries to the ones being processed for domestic multipliers. Normally this list is set up by the CONTEST statement, but you can use this command multiple times to add as many countries to the domestic list as you want. You can clear out the default list by using the command ADD DOMESTIC COUNTRY = CLEAR first and then adding the ones you want. Make sure the country ID's you add match the ones in your CTY.DAT file.

ALL CW MESSAGES CHAINABLE Values: True or False Default: False Control-J

Normally, when you press a function key memory when a CW message is already playing, the previous message will be aborted and the new message started. However, if you set this flag to TRUE, the new message won't start until the old one is complete. You can also do this for selected CW messages by putting a Control-D at the start of the message.

ASK FOR FREQUENCIES Values: True or False Default: True Control-J

When using the band map and you do not have a radio interfaced, the program will normally ask you for the frequency of stations you are doing dupechecks on. Setting this parameter to false will stop the program from asking you for the frequencies.

ASK IF CONTEST OVER Values: True or False Default: True Control-J

When exiting the program and if this parameter is true, the program will ask if the contest is over. If you answer yes, the last 5 QSOs in the editable log will be merged into the your LOG.DAT file. This does the same thing as pressing Alt-U.

AUTO CALL TERMINATE Values: True or False Default: False Control-J

When this switch is enabled and you are on CW, the program can automatically terminate callsigns that you enter in response to a CQ. When coupled with the Start Sending Now Key or the AUTO SEND CHARACTER COUNT command, the program will assume a call is complete when all the characters entered in the call window have been sent. For example, assume 4U1ITU has answered you. If you press the start sending now key after entering 4U1I, the program will start sending 4U1I. If you have entered a new character before it finishes, it will send that character as well. If there are no new characters to send, it will automatically go on to send the CQ EXCHANGE. It works the same way if the AUTO SEND CHARACTER COUNT function starts sending the callsign. In this case, it is possible to respond to a station by using the same number of keystrokes that are in it's callsign.

AUTO DISPLAY DUPE QSO Values: True or False Default: False Control-J

When set to true and working a duplicate QSO in the CQ mode, the program will automatically show you the log entries of the previous QSO with that station.

AUTO DUPE ENABLE CQ Values: True or False Default: True Control-J

If this switch is TRUE, a dupe who calls you when you are CQing will be sent the QSO BEFORE MESSAGE instead of the regular exchange. If it is set to FALSE, the normal exchange will be sent and the contact will be logged with zero QSO points. The default is TRUE. It is handy to set this to FALSE when entering a log by hand after the contest.

AUTO DUPE ENABLE S AND P Values: True or False Default: True Control-J

If this switch is TRUE, when you try to call a dupe with the ENTER key in the search and pounce mode, the program will not call the station. You might set this to false in contests like the Internet Sprint where you often call the same station several times in the contest.

AUTO QSL INTERVAL Values: Any integer Default: 0 Control-J

Normally when you press RETURN to log a QSO, the QSL MESSAGE will be sent. The AUTO QSL INTERVAL command can be used to send the QUICK QSL MESSAGE instead, except for the desired frequency of sending the QSL MESSAGE.

This typically would be used when dealing with a large pileup. If you set AUTO QSL INTERVAL to 3, then the QUICK QSL MESSAGE would be sent, except for every third QSO. A value of zero disables this feature and the QSL MESSAGE is sent every time.

AUTO QSO NUMBER DECREMENT Values: True or False Default: False Control-J

If you have programmed a S&P exchange that includes a QSO number, you might find yourself if the following situation: You have just logged a station, who is now asking for your report again. If you press F2, you will sent the next QSO number, which will be one more than the one you sent the first time. To fix this problem, if you set AUTO QSO NUMBER DECREMENT to TRUE and press F2 when both the call and exchange windows are empty, the QSO number will be reduced by one.

AUTO S&P ENABLE Values: True or False Default: False Control-J

When this parameter is true, the program will automatically jump into S&P mode if it detects you have moved the VFO more than one kilohertz in a second.

AUTO SEND CHARACTER COUNT Values: 0 to 6 Default: 0 Control-J

The program can start sending the callsign of a station responding to your CQ after a certain number of characters have been typed in. This is controlled with the AUTO SEND CHARACTER COUNT command. For example, if you put AUTO SEND CHARACTER COUNT = 3 in your LOGCFG.DAT file, and 4U1ITU calls you, the program will start sending the call after you have typed 4U1. If you enable the AUTO CALL TERMINATE feature, the program will go on to the CQ EXCHANGE message when it catches up to you. When the AUTO SEND CHARACTER COUNT is not zero, an arrow will show up above the call window indicating which character will start the CW. You can defeat this function with the Alt-Dash command. The arrow will then disappear. To enable it again, press Alt-Dash again and the arrow will appear.

You can delete any unsent characters with the backspace key. If the program starts sending the call when you don't want it to, hit ESCAPE once and the CW will stop. When you are finally ready for the station to be called, press RETURN.

AUTO TIME INCREMENT Values: Any integer Default: 0 Control-J

If you are using the program after a contest to enter a log, the AUTO TIME INCREMENT feature can be real handy. You would set the increment to occur after the specified number of contacts. A value of zero disables the auto time increment feature.

BACKCOPY ENABLE Values: True or False Default: False Control-J

This switch controls the backcopy feature of the DVP card. You must have the DVP card installed, run the DVPTSR program and enable the DVP using the DVP ENABLE command for this feature to work. When enabled, the DVP will continuously record the last 30 seconds of receiver audio and make it available for instant replays or disk saves. To do an instant replay, press Alt-1 for a one second replay, Alt-2 for 2 seconds, Alt-3 for 4 seconds, Alt-4 for 8 seconds or Alt-5 for 16 seconds. Recording continues during the instant replay. To save a copy of the receiver audio to the disk, use Alt-6 for the last 5 seconds, Alt-7 for the last 10 seconds, Alt-8 for 15 seconds, Alt-9 for 20 seconds, or Alt-0 for the last 30 seconds. The filename will be the QSO number and the extension is DVP. A note will be added to the log showing when the backcopy was executed.

BAND Values: 160, 80, 40, 30, 20, 17, 15, 12, 10, 6, 2, 222, 432, 902, 1GH, 2GH, 3GH, 5GH, 10G, 24G and LGT.

You can select which BAND the program will come up in if no contacts have yet been made. After the program is running, use Alt-B or Alt-V to select your band. Some contests are single band contests and may not let you change bands after a QSO has been made (See MULTIPLE BANDS). Use the Alt-H help command for more info on the Alt key commands.

BAND MAP CALL WINDOW ENABLE Values: True or False Default: True Control-J

When this is TRUE, and you have just tuned to a frequency that has a station in the band map, the callsign and exchange information of the station will be put in the call window. This allows you to renew the entry by simply pressing the space bar. The exchange information is shown to help you identify the station quickly. If you start entering a new callsign, the entry will be erased first.

BAND MAP ENABLE Values: True or False Default: False Control-J

Determines if the band map is displayed. See section 6.15 for information. If you started the program with the band map disabled, you will have to restart the program for it to be in the proper video mode.

BAND MAP GUARD BAND Values: Integer (in hertz) Default: 200 Control-J

The band map will indicate if a displayed entry is near the frequency of your interfaced radio by making it blink. You can adjust how close the frequency needs to be to trigger blinking.

BEEP ENABLE Values: True or False Default: True Control-J

When set to FALSE, all beeps generated by the program on the PC speaker are disabled.

BEEP EVERY TEN QSOS Values: True or False Default: False Control-J

When set to TRUE, a short beep will be generated every tenth QSO. This is useful when entering a log by hand after the contest to make sure you haven't skipped any contacts.

BIG REMAINING LIST Values: True of False Default: False Control-J

The remaining multiplier list can be expanded to include almost 150 countries by setting this parameter to TRUE. It will overwrite the multiplier needs window however. There is a separate default list of countries that will be used if this feature is enabled.

BROADCAST ALL PACKET DATA Values: True of False Default: True Control-J

When set to TRUE and when using the multi network, all data coming from the TNC is sent to all of the computers in the network so it can be viewed with the Control-B command. Commands may also be sent from any computer on the network to the TNC. Beware that data is not sent until a carriage return is found. See section 5.9 for more information,

CALL OK NOW MESSAGE Values: Any string Default: } OK % Alt-P - O
CALL OK NOW CW MESSAGE
CALL OK NOW SSB MESSAGE

These message gets sent when you are finishing a contact while running stations and the callsign in the Call Window is different than when you first came back to the station. Normally this is set to send the call of the station and "OK". There are cases when you will want to update the callsign from the one to which you originally came back. Pressing Alt-F10 will send the message "IS UR CALL W6XYZ?" and update the variable CallsignICameBackTo to W6XYZ. You can also do this in any of your CW messages with the Control-U character. This will take the current value of the Callsign Window and store it in this variable for future comparison.

Use CALL OK NOW CW MESSAGE if you are also programming separate messages for SSB using the CALL OK NOW SSB MESSAGE.

CALLSIGN UPDATE ENABLE Values: True or False Default: False Control-J

When set to TRUE, the program will look for callsign entries in the exchange window. This can be done with most exchange formats without any problems. The program will act just as if the call had been changed in the call window. You must type in the complete call, and have a space before and after it.

CHECK LOG FILE SIZE Values: True or False Default: False Control-J

When enabled, the program will check the file size of the LOG.DAT file to make sure it is the proper size for the number of contacts. This feature can alert you to a disk failure and prevent you from losing too much data. If this error occurs, you should stop the program, back up the files you have to a floppy, run a disk utility to see if you can recover any lost data, then reboot your computer.

CLEAR DUPE SHEET Values: True or False Default: False

The CLEAR DUPE SHEET command will clear the dupesheet when found in a LOGCFG.DAT file that is executed with the Control-V command. It will not do anything if found in the LOGCFG.DAT file during power-up. Syntax CLEAR DUPE SHEET = TRUE.

CODE SPEED Values: 1 to 99 Default: 35 Alt-S

You can select the CODE SPEED the program will come up in. While the program is running, you can use the Alt-S command to set a new speed or use the Page Up and Page Down keys to change the code speed in 3 WPM steps. The changes instantly affect any CW being sent.

COLUMN DUPESHEET ENABLE Values: True or False Default: False Control-J

This flag controls the format of the visible dupesheet when it is displayed in VGA mode below the normal operating screen. When enabled, it will place each of the ten call districts in their own column. This makes it much easier to spot a specific call. If two columns have more than 25 calls in them, it will revert to the normal display mode.

COMPUTER ID Values: A to Z or none Default: None Control-J

When a computer ID is found, it will be printed just after the QSO number in the log sheet. There is a command in POST that can be used to separate the logs by computer ID. This might be used in a multi-multi situation.

CONFIRM EDIT CHANGES Values: True or False Default: True Control-J

This flag determines whether or not you are asked if you want to save the changes made after editing one of your five last QSOs using the Alt-E command. Normally, the program will make sure you want to save the changes you made before updating the LOG.TMP file. However, some people would rather not be bothered by this question. To disable the question, set this flag to FALSE.

CONTACTS PER PAGE Values: 1 to 50 Default: 50

You can control the number of contacts printed on each page with this command.

CONTEST Values: Any valid contest name Default: None

The CONTEST statement tells the program which one it is going to operate. See section 4.1 for complete information on this command.

CONTEST NAME Values: Any text string Default: CONTEST dependent

You can specify the CONTEST NAME, and the program will automatically add your call and the year to generate the CONTEST TITLE.

CONTEST TITLE Values: Any text string Default: CONTEST dependent

The CONTEST TITLE is displayed at the top of the screen and in the header of the log pages.

COPY FILES

The COPY FILES command will allow you to move files around while executing a LOGCFG.DAT file. This might be handy for setting up specific DVP files for different operators. The syntax is COPY FILES = sourcedir filemask destdir. Sourcedir is the source directory for the files. Use a period for the active directory. The filemask specifies the files to be copied. It can be a specific file name, or you can use standard DOS wildcards. The destdir specifies the directory where the files will go.

COUNTRY INFORMATION FILE Values: filename string Default: null string Control-J

This command allows you to specify a file that has up to five lines of text associated with a country (as defined by the CTY.DAT file). The text will be displayed in the editable window when you work the station. The file format consists of the country ID character (as seen in the CTY.DAT file) on the first line, followed by up to five lines of text. A blank line indicates the end of the data and can be followed by the next country ID. There is no limit to the file size or number of countries.

CQ EXCHANGE
CQ CW EXCHANGE
CQ SSB EXCHANGE Values: Any string Default: CONTEST dependent Alt-P - O

The CQ EXCHANGE is sent when running stations who have responded to your CQ. The program will automatically send the station's call before the CQ EXCHANGE is sent. The CQ EXCHANGE is sent immediately after the callsign is sent. If you want a space there, you will have to put it at the start of the CQ EXCHANGE.

Use CQ CW EXCHANGE and CQ SSB EXCHANGE if you want to program different messages depending on the mode you are using.

CQ EXCHANGE NAME KNOWN
CQ CW EXCHANGE NAME KNOWN
CQ SSB EXCHANGE NAME KNOWN Legal Values: Any string Default: null string Alt-P - O

The CQ EXCHANGE NAME KNOWN message works the same way as the CQ EXCHANGE, except it is sent when the program knows the name of the station you are working. If there is no CQ EXCHANGE NAME KNOWN message, the CQ EXCHANGE message is always used.

Use CQ CW EXCHANGE NAME KNOWN and CQ SSB EXCHANGE NAME KNOWN if you want to program separate messages for each mode.

CQ MEMORIES Values: CQ MEMORY F1 - CQ MEMORY F10, ALTF1 - ALTF10, CONTROLF1 - CONTROL-F10
CQ CW MEMORIES Defaults: CONTEST dependent Alt-P - C
CQ SSB MEMORIES

These memories are sent when pressing the corresponding function key and you are in the CQ mode. The CQ mode is simply the mode you are in if the Exchange Window is not visible. Once you have started a contact, or go into the Search and Pounce mode, the Exchange Window will appear.

CQ MEMORY F1 can also be sent by pressing RETURN with no entry in the call window.

CQ MENU Values: Any text string Default: Null String

The CQ MENU appears at the bottom of the operating screen when in the CQ MODE. You might want to set this menu up to show your selections for the programmable CQ function keys.

CURTIS KEYER MODE Values: A or B Default: B Control-J

If you have a paddle connected to the computer, you can decide which CURTIS KEYER MODE you want to use (A or B type). Most keyers use the B type, which is the default.

CUSTOM INITIAL EXCHANGE STRING Default: blank

This string defines how your initial exchange will be constructed if you select INITIAL EXCHANGE = CUSTOM. You may pick from the following fields, and put them in any order: CQZONE, ITUZONE, NAME, GRID, FOC, QTH, CHECK, SECTION, OLDCALL, TENTEN, USER1, USER2 and USER3.

CUSTOM USER STRING Default: blank

This string defines how your initial exchange will be constructed if you select USER INFO SHOWN = CUSTOM. You may pick from the following fields, and put them in any order: CQZONE, ITUZONE, NAME, GRID, FOC, QTH, CHECK, SECTION, OLDCALL, TENTEN, USER1, USER2 and USER3.

CW ENABLE Values: True or False Default: True Control-J

When CW ENABLE is FALSE, the computer is locked from sending any CW, except CW sent from the paddle.
Speed will return to the previous value when sending the QSL MESSAGE or a new CQ if the QSO is aborted.

CW SPEED FROM DATABASE Values: True or False Default: False Control-J

When CW SPEED FROM DATABASE is true, the program will look for a CW Speed entry in the TRMASTER database for the callsign you are working. If it finds one, it will send the CQ EXCHANGE at that speed. The CW Speed will return to the previous value when sending the QSL MESSAGE or a new CQ if the QSO is aborted.

CW TONE Values: Any integer Default: 700 Control-J

The computer can send the CW over its speaker for monitoring. This command allows you to select the pitch. Setting the CW TONE to zero disables it. The PADDLE MONITOR TONE command separately controls the tone of CW sent with the paddle.

DE ENABLE Values: True or False Default: True Control-J

This flag can determine if DE is sent before your callsign when using the F1 key in the search and pounce mode. If you don't want the program to put DE in front of your call, set this flag to FALSE.

DIGITAL MODE ENABLE Values: True or False Default: False Control-J

When DIGITIAL MODE ENABLE is TRUE, you can select DIG as a mode when using the Alt-M command. This will be treated as a separate mode from CW or SSB. It is intended to allow you to log digital QSOs made during the ARRL Field Day.

DISPLAY MODE Values: COLOR or MONO Default: MONO

The DISPLAY MODE command will determine which default color template will be used for the program. The COLOR option has been optimized for color displays. If you want to change the colors of individual windows, use the commands listed in section 4.3. Remember to put these commands AFTER the DISPLAY MODE command in the LOGCFG.DAT file.

DISTANCE MODE Values: MILES, KM or NONE Default: None Control-J

This parameter controls the display of the distance to the station you are working. It is shown along with the beam headings.

DOMESTIC FILENAME Values: Valid domestic filename Default: CONTEST dependent Control-J

This command allows you to specify the name of the domestic multiplier file that will be used by the program. This is normally determined by the program automatically when you specify a certain contest. However, if you are creating your own domestic multiplier file and want the program to use yours instead, you can use this command. Make sure you also set the DOMESTIC MULTIPLIER = DOMESTIC FILE so that the program will know to look for a file.

See section 4.4.2 for more information on domestic QTH files.

DOMESTIC MULTIPLIER Values: See section 5.4.1 Default: CONTEST dependent

The DOMESTIC MULTIPLIER defines which type of domestic multiplier the program will use. See section 5.4.1 for more details.

DOMESTIC QTH DATA FILENAME Values: .DOM filename Default: CONTEST dependent

This filename is normally set up when you select a contest. However, if you want to use a different .DOM file, specify the filename with this command.

DUPE CHECK SOUND Values: NONE, DUPE BEEP, MULT FANFARE Default: DUPE BEEP Control-J

When doing a dupe check with the space bar, the computer will normally generate a beep if the station is a dupe. However, you can change it to be silent, or use the fanfare sound instead.

DVK PORT Values: 1, 2, 3 or NONE Default: None Control-J

The program can interface with a DVK (Digital Voice Keyer) using one of the parallel ports. This supports either an external DVK or the W9XT internal DVK. To activate this function, you need to specify the parallel port you want to use. To use an external DVK you will need to build an interface cable. Pins 3, 4, 5 and 6 on the parallel connector have positive going pulses for memories 1, 2, 3 and 4 respectively. Pin 2 can be used for a message abort if you aren't using the parallel port for band output information. These pin outs are compatible with NA and CT.

DVP PATH Values: directory for DVP files Default: null string Control-J

The DVP PATH allows you to tell TR where to look for DVP files. This might be used to point to a RAMDISK. When TR starts up, any .DVP files found in the active directory will be copied to the directory specified by this command.

DVP ENABLE Values: True or False Default: False Control-J

This command determines if the DVP is enabled. When it is enabled, you must run the DVPTSR program before starting TR.

DX MULTIPLIER Values: See section 4.4.1 Default: CONTEST dependent

This command determines which type of DX multiplier the program will use. See section 5.4.1 for more information.

EIGHT BIT PACKET PORT Values: True or False Default: False

Allows you to switch the packet port to eight bit operation instead of the normal 7-bit operation. This is necessary if you are connected to a packet cluster node which uses 8 bits instead of 7.

EX MEMORIES Values: EX MEMORY F3 - EX MEMORY F10, ALTF1 - ALTF10, CONTROLF1 - CONTROLF10
EX CW MEMORIES Default: CONTEST dependent Alt-P - E
EX SSB MEMORIES

These memories are sent when pressing the corresponding function key and you are in the exchange or S&P mode (whenever the exchange window is up). Memory EX MEMORY F1 is used for sending your callsign in the S&P mode and is programmed by the MY CALL message, and EX MEMORY F2 is programmed with the message found in the CQ EXCHANGE.

Use the EX CW MEMORIES and EX SSB MEMORIES to have different contents depending on your mode.

EX MENU Values: Any text string Default: Null string

The EX MENU appears on the bottom of the screen when in the Exchange or S&P mode. You might want to set this menu up to show which messages are programmed in your exchange function key memories.

EXCHANGE MEMORY ENABLE Values: True or False Default: True Control-J

This switch allows you to turn on the exchange memory. This is useful when working the same station on different bands or modes, and when the exchange contains either a class (i.e., Field Day), power (ARRL DX), age (All Asian) name, ITU Society name (IARU), zone, or Domestic QTH. If you have worked the station before, the constant information will appear without you having to enter it. Please note that this information is lost if you stop the program and the RESTART.BIN file is deleted. See chapter 5.6 for more information about this.

EXCHANGE RECEIVED Values: See section 5.4.3 Default: CONTEST dependent

The exchange received parameter tells the program what type of exchange data to expect. It is normally controlled by the CONTEST statement in the LOGCFG.DAT file. See section 4.4.4 for more details.

FARNSWORTH ENABLE Values: True or False Default: False Control-J

When slowing down your CW speed, it is often desirable to increase the space between letters. Turning on FARNSWORTH ENABLE will increase the spaces between letters exponentially as your speed decreases below 25 WPM. You can control this parameter dynamically while sending a CW message. See chapter 5.14 for more information.

FARNSWORTH SPEED Default: 25 Control-J

Controls the code speed at which the farnsworth effect starts to cut in. As you decrease the code speed below this value, there will be exponentially more space added between characters. For increased farnsworth effect, increase the farnsworth speed. You can also control this parameter during dynamically during CW messages. See chapter 5.14 for more information.

FLOPPY FILE SAVE FREQUENCY Default: 0 (zero = disable) Control-J
FLOPPY FILE SAVE NAME Default: LOGBACK.DAT Control-J

You may want to occasionally back up the LOG.DAT file you are generating onto another disk drive. To enable this, set the parameter FLOPPY FILE SAVE FREQUENCY to the number of contacts between saves. The name of the file the back up will be saved to is specified using the command FLOPPY FILE SAVE NAME. You do not have to specify another drive if you don't want to. You can even make backups to the same directory as long as the file has a name different than the LOG.DAT file.

FOOT SWITCH MODE Values: See chapter 5.15 Default: Disabled

The FOOT SWITCH MODE command determines what will happen if you press a foot switch connected to pin 15 of the port specified by the FOOT SWITCH PORT command. See chapter 5.16 for information on this command.

FOOT SWITCH PORT Values: 1 - 3 Control-J

The FOOT SWITCH PORT command is used to tell the program which parallel port you have a foot switch interfaced to. If you have connected a foot switch to pin 15 of one of the parallel ports, you can use the FOOT SWITCH MODE command to determine how it will function.

FREQUENCY MEMORY Values: Any frequency in kilohertz

When TR first switches to a band/mode, it has a frequency that it will go to as a default. If you would like to change the default for your own needs, use the FREQUENCY MEMORY command. Simply use this command and set the frequencies you want to use. If you are specifying a frequency that might be processed as a CW frequency, put SSB in front of it (i.e., FREQUENCY MEMORY = SSB 7050). Note that these defaults will be updated with actual frequencies used if you set FREQUENCY MEMORY ENABLE = TRUE.

FREQUENCY MEMORY ENABLE Values: True or False Default: True Control-J

When TRUE, this parameter will enable the frequency memory. This means that you will return to the frequency you were last using when returning to a band (even with the other radio).

FT1000MP CW REVERSE Values: True or False Default: False Control-J

If you have interfaced a FT-1000MP with the program, this flag will determine if the radio uses normal or reverse mode when in the CW mode.

FREQUENCY ADDER Values: Integer Default: 0 (zero) Control-J

The frequency adder can be used to add an offset to the frequency received from an interfaced radio. This was initially implemented to allow the program to be used with a transverter where the IF frequency is reported, instead of the actual frequency.

GRID MAP CENTER Values: Four or six character grid Default: none Control-J

This parameter will set center of a grid map which will show you at a glance the grids you have worked. The grid map will be displayed in VGA mode if available.

HF BAND ENABLE Values: True or False Default: Contest dependent Control-J

This parameter enables the HF bands below 30 MHz. It is set to False when choosing one of the VHF contests.

HOUR DISPLAY Values: THIS HOUR, LAST SIXTY MINUTES or BAND CHANGES Control-J

This parameter determines how the hour rate display works. In the THIS HOUR mode, it shows the number of QSOs made during the current hour (starting at 15:00 for example). In the LAST SIXTY MINUTES, it shows the number of contacts made during the last 60 minutes. The BAND CHANGES mode will count how many band changes have been made since the new hour began. The default is THIS HOUR.

HOUR OFFSET Values: Positive or negative integer Default: 0 Control-J

The program can add an offset to your computer time to generate UTC for your logs. Using the HOUR OFFSET command allows you to subtract or add a number of hours. For example, if you are in France and your computer is one hour ahead of UTC, you would set the value to minus one.

ICOM COMMAND PAUSE Values: Integer (milliseconds) Default: 300 Control-J

When sending frequency and mode commands to some of the Icom radios, a pause needs to be made between the two commands for proper operation. The value of 200 milliseconds seems sufficient for all models tested, but if you find the radio is not responding to commands, you might try increasing the delay between commands with this command.

ICOM RESPONSE TIMEOUT Values: Integer (milliseconds) Default: 500 Control-J

This parameter adjusts the amount of time TR waits for a response from an interfaced Icom radio before giving up on the response. The value of 100 milliseconds seems sufficient for all current radios. However, if you are having problems interfacing a radio, you might try increasing this value.

INCREMENT TIME ENABLE Values: True or False Default: False Control-J

Determines if the increment time function using Alt-1 to Alt-0 is enabled. If this flag is set to TRUE, the Alt-1 to Alt-10 keys will increment the time 1 to 10 minutes. This function is handy when entering a log by hand after the contest. See section 5.2 for more information on entering a hand written log.

INITIAL EXCHANGE Default: CONTEST dependent Control-J

Legal Values:							
	NONE	ZONE	CHECK SECTION	USER 1	USER 3	USER 5	GRID
	NAME	QTH	FOC NUMBER	USER 2	USER 4	SECTION	CUSTOM

This parameter controls the generation of an initial exchange based upon the callsign. All information except the zone must come from the .DTA database. The zone can come from the database, or if not found, will be calculated based upon the callsign and the information found in the .CTY country file.

If you choose CUSTOM, your initial exchange will be built using the CUSTOM INITIAL EXCHANGE STRING. This allows you to choose multiple data fields and put them in any order.

You can program initial exchanges using the file specified by the INITIAL EXCHANGE FILENAME parameter. Initial exchanges can also come from the initial exchange memory if you have already worked the station once. See section 4.4.4.2 for more details on initial exchanges.

INITIAL EXCHANGE CURSOR POS Values: AT START or AT END Default: AT END Control-J

When an initial exchange is inserted into the exchange window, you can determine if the cursor will be placed at the start or end of the exchange with this command.

INITIAL EXCHANGE FILENAME Values: Valid initial exchange file Default: INITIAL.EX

This parameter allows you to specify the filename of the initial exchange file. This file will be used by the program to determine initial exchanges for the callsigns included in the file. The calls will also show up in the partial call list. The format for the file is callsign, followed by a space, and then the initial exchange information as you want it to appear in the exchange window.

INPUT CONFIG FILE Values: Valid filename Default: Null string

You can specify a file name that gets loaded as part of a LOGCFG.DAT file. This allows you to put the LOGCFG.DAT commands that are always the same in one place (i.e., radio interface information, beam heading file names, etc.). For example, to use the file common.cfg in the directory \log\name, use INPUT CONFIG FILE = \log\name\common.cfg.

INSERT MODE Values: True or False Default: True Control-V

This switch allows you to define the initial condition of the insert mode. This determines if characters are overwritten or inserted when editing a callsign or exchange. You can toggle the insert mode while TR is running with Control-V or the INSERT key.

INTERCOM FILE ENABLE Values: True or False Default: False Control-J

When this parameter is TRUE, all messages sent between computers during the contest will be logged in the file INTERCOM.TXT.

JST RESPONSE TIMEOUT Values: Integer (in milliseconds) Default: 100 Control-J

This parameter adjusts the amount of time TR waits for a response from an interfaced JST radio before giving up on the response. The value of 100 milliseconds seems sufficient for all current radios. However, if you are having problems interfacing a radio, you might try increasing this value.

KENWOOD RESPONSE TIMEOUT Values: Integer (in milliseconds) Default: 25 Control-J

This parameter adjusts the amount of time TR waits for a response from an interfaced Kenwood radio before giving up on the response. The value of 25 milliseconds seems sufficient for all current radios. However, if you are having problems interfacing a radio, you might try increasing this value.

KEYER OUTPUT PORT
KEYER RADIO ONE OUTPUT PORT
KEYER RADIO TWO OUTPUT PORT
Values: SERIAL 1 to SERIAL 4; PARALLEL 1 to PARALLEL 3
Default: None

These commands select which computer port is used for the CW and PTT outputs. You may specify serial ports 1-4 and parallel ports 1-3. When specifying a serial port for CPU keying, you can add the word INVERT to the port name (i.e., SERIAL 1 INVERT). This will invert the CW and PTT signals. This simplifies the interface to a radio which uses negative. Replace the NPN transistors shown in Appendix B with PNP transistors. Use clamp diodes to prevent the base from going positive.

Examples: KEYER OUTPUT PORT = SERIAL 1 (Does both radios)
KEYER RADIO ONE OUTPUT PORT = PARALLEL 1
KEYER RADIO TWO OUTPUT PORT = SERIAL 2

KEYPAD CW MEMORIES Values: True or False Default: False Control-J

If you would like to use the numeric keypad to send CW memories, you can do this. Set this parameter to TRUE and the keys on the keypad will send CQ MEMORIES ControlF1 to F10 (0 sends F10).

LEADING ZERO CHARACTER Values: Any character Default: 0 (zero) Control-J

This parameter allows you to customize the character used as a leading zero when generating serial numbers and LEADING ZEROS is greater than zero. Normally, the character is 0 (dah-dah-dah-dah-dah). However, you might prefer T or the letter O. If you use the Control-J menu to access this parameter, it will let you toggle between those three characters.

LEADING ZEROS Values: Integer Default: 0 Control-J

If you want your serial number to be a certain length by adding leading zeros, you can specify the length with this command. A value of zero disables adding any leading zeros. You can set the character used for leading zeros with the LEADING ZERO CHARACTER command.

LEAVE CURSOR IN CALL WINDOW Values: True or False Default: False Control-J

When set to TRUE, the cursor will remain in the call window instead of automatically moving to the exchange window during the QSO process. Some people prefer this mode in contests where a zone comes up as the initial exchange and you rarely need to change it.

LITERAL DOMESTIC QTH Values: True or False Default: False Control-J

Normally the program will filter the domestic QTH you have entered and log the QTH as shown in the domestic file. If you would rather log exactly what you typed in, set this parameter to false.

LOG FILE NAME Values: Valid filename Default: LOG.DAT

If you want the log filename to be something other than LOG.DAT, use this command.

LOG FREQUENCY ENABLE Values: True or False Default: False Control-J

When True, the serial number will be replaced with the frequency of the QSO (without the leading megahertz value). The band and mode will still be written at the start of the log entry. This feature is only useful if you have an interfaced radio.

LOG RS SENT
LOG RST SENT Legal Values: Text up to 3 characters Default: 59/599 Control-J

The signal report that shows up in your log can be changed from the default of 59 or 599. Note that the [character in your CW exchange allows you to enter the strength of the RST sent and this will be put in your log instead of this default.

LOG SUB TITLE Values: Any string Default: none

If you want a sub title to appear at the top of each log page, put it here.

MESSAGE ENABLE Values: True or False Default: True Control-J

The MESSAGE ENABLE command determines if the various messages located in the Alt-P O menu are sent. If you disable them by setting this parameter to FALSE, messages like the CQ EXCHANGE and QSL MESSAGE will not be sent. This would be used if you want to send these messages manually.

MODE Values: SSB, PHONE or CW Default: CW

You can select which mode the program will come up in if no QSOs have been made with the MODE command. Normally you would just use Alt-M to select the desired mode.

MOUSE ENABLE Values: True or False Default: False Control-J

When set to TRUE, the mouse is enabled for selecting entries on the band map (when using the Control-PageDown command). If this is set to TRUE and you do not have a mouse connected, it is possible the Control-PageDown command will not work correctly.

MULT BY BAND
MULT BY MODE Values: True or False Default: CONTEST dependent

These switches determine if multipliers can be counted again on different bands or modes. These parameters are set up when the CONTEST statement is executed and normally do not require any changes.

MULT REPORT MINIMUM COUNTRIES Values: 2 to 5 Default: 4 Control-J

When executing the Control-O command, you will be shown DX multipliers which you have worked on a certain number, but not all, bands. This parameter sets the minimum number of bands the country must be worked on to show up on this report.

MULTI MULTS ONLY Values: True or False Default: False Control-J

If you are using a computer network for multi-multi, this switch will determine if all QSOs are passed around the network, or only those which are new multipliers.

MULTI PORT Values: SERIAL 1 to SERIAL 4 Default: None

If you are using multiple computers in a network, specify the serial port you are using. See section 5.9 for more details.

MULTI RETRY TIME Values: 0 or >= 3 seconds Default: 30 Control-J

The MULTI RETRY TIME determines how quickly a retry is sent for the first two retry attempts over the multi network. When a computer generates a multi network messages, it looks to see if the message makes it around the loop. If it doesn't see the message come back around after some time, it will resend the message. Normally, the time it waits between retries is 30 seconds. However, in some cases with only 2 or 3 computers, a shorter time is more optimum. It is suggested you try setting this for 5 seconds for each computer in the network (minus one). A total of 10 retries are attempted before giving up.

MULTI UPDATE MULT DISPLAY Values: True or False Default: True Control-J

When a QSO is passed around the network, the remaining multiplier displays will be updated on all of the computers if this parameter is TRUE. However, some slower computers mght take too long to update this display and you can turn it off.

MULTIPLE BANDS Values: True or False Default: CONTEST dependent Control-J
MULTIPLE MODES

These switches control the ability to change bands or modes while working the contest. If you are working a single mode or single band contest, it is recommended that the corresponding flag be set to FALSE. This will prevent you from accidentally changes bands or modes during the contest. Before you make your first QSO, you will be able to set the band and mode regardless of the status of these flags.

MY CALL Values: Your callsign Default: None Control-J

This must be the first statement of your LOGCFG.DAT file. You should include any portable information.

MY CONTINENT Values: EU, NA, SA, AF, AS, OC Default: Computed from MY CALL Control-J

Normally, the continent you are in is determined by your callsign. However, if you want the program to put you in a different continent, use this command. It is best to put this command BEFORE the CONTEST statement in your LOGCFG.DAT file so the program will set up the contest properly.

MY COUNTRY Values: Any valid country ID Default: Computed from MY CALL Control-J

Normally, the country you are in is determined by your callsign. However, if you want the program to put you in a different country, use this command. It is best to put this command BEFORE the CONTEST statement in your LOGCFG.DAT file so the program will set up the contest properly.

MY GRID Values: Four or six character grid Default: none (null string) Control-J

This parameter will set the grid that you are operating from. This is used for generating beam headings from your location. It is also used to determine QSO points when using a QSO point method that computes points based upon distance. Use GRID MAP CENTER to set the center of the grid map.

MY NAME Values: Any string Default: None

Use this command before the CONTEST statement of contests that use your name as part of the exchange. The program will use this information for setting up your CW messages. It is also used in the Internet Sprint contest to determine the first name that will be sent when using the special CW character (to send the name received in your previous QSO.

MY STATE Values: Text string Default: None

In some of the contests where a state or province is part of the exchange, the program will automatically set up the CW messages with your state in it. This command allows you to tell the program what state to use. This command is also used by the program for the CQP to determine if you are in California or not. Use CA to indicate California. It is best to put this command before the CONTEST statement in your LOGCFG.DAT file so the information is processed correctly.

MY ZONE Values: Any integer Default: Computed from MY CALL Control-J

Normally, the zone you are in is determined by your callsign. However, if you want the program to put you in a different zone, use this command. It is best to put this command BEFORE the CONTEST statement in your LOGCFG.DAT file so the program will set up the contest properly.

NAME MEMORY DISABLE Values: True or False Default: False Control-Y

This switch will determine if the names and callsigns of the name database are loaded into memory, or just the callsigns. If you are about to run out of memory during a contest, the Control-Y command will dump the name portion of the database (keeping the callsigns). The Control-Y command automatically adds the command NAME MEMORY DISABLE = TRUE to your LOGCFG.DAT file so you won't run out of memory when the program is restarting.

NO LOG Values: True or False Default: False Control-J

If you want to disable a computer on the network from logging any QSOs, set this parameter to true.

NO POLLING DURING PTT Values: True or False Default: False Control-J

When set to TRUE, the program will not poll the radio for frequency information during the time the PTT signal is active.

ORION PORT Values: SERIAL 1 to SERIAL 4 Default: None

The ORION PORT is used to choose a serial port to interface to the Orion rotator control. To send the rotator to the direction for the country of a callsign in the call window, use the Control-P command.

PACKET ADD LF Values: True or False Default: False Control-J

When the PACKET ADD LF parameter is true, a line feed character will be inserted after receiving a carriage return from the TNC. Use this if your lines are not scrolling down the screen.

PACKET AUTO CR Values: True or False Default: False Control-J

When TRUE, a carriage return will be sent to the packet port when exiting the Control-B window.

PACKET BAND SPOTS Values: True or False Default: False Control-J

When set to TRUE, you will only be shown packet spots for the band you are on.

PACKET BAUD RATE Values: 1200, 2400 or 4800 Default: 2400

You can select the baud rate used for the packet port you have specified. The limitation of 4800 baud is the price you pay for not having to worry about IRQs as the port is polled by the CW generation routine.

PACKET BEEP Values: True or False Default: True Control-J

When TRUE, enables a beep when a packet spot is displayed.

PACKET PORT Values: SERIAL 1 to SERIAL 4 Default: None

To interface your packet TNC to the program, use the PACKET PORT command. You can specify any serial port (1-4). To activate the packet window allowing you to log into your packet cluster, use the Control-B command.

PACKET RETURN PER MINUTE Values: 0 to 9 Default: 0 Control-J

This parameter will send a carriage return to the packet port every N minutes. A value of zero disables this feature.

PACKET SPOT EDIT ENABLE Values: True or False Default: False Control-J

When using the ` key to spot the station you are working, you can have the option to edit the packet spot before it goes out. This might be used to add QSX information or other notes.

PACKET SPOTS Values: ALL or MULT Default: Mult Control-J

The PACKET SPOTS command allows you to select if you want to see all packet spots, or just new multipliers.

PADDLE BUG Values: True or False Default: False Control-J

When TRUE, will make the DAH side of your paddle act like a bug.

PADDLE MONITOR TONE Values: Any integer Default: 700 Control-J

The computer speaker monitor tone used when sending with a paddle connected to the parallel port is controlled with this command. This allows you to turn off the monitor tone for computer generated CW, but allows you to hear your CW when sending manually. A value of zero disables the tone.

PADDLE PORT Values: 1, 2, 3 or NONE Default: None

To connect a paddle to the computer, use the PADDLE PORT command to tell the program which parallel port you are going to use. See Appendix B for connection information.

PADDLE PTT HOLD COUNT Values: Any integer Default: 13 Control-J

You can adjust the hold time after finishing CW with the paddle until the PTT drops out with the PADDLE PTT HOLD COUNT command. This command determines the number of dit counts that the PTT will be held before being released.

PARTIAL CALL ENABLE Values: True or False Default: True Control-J

Allows you to control the partial call function. This is a separate feature from the super check partial option using the TRMASTER database. Theses callsigns only come from the dupesheet or initial exchange file.

When enabled, partial calls will be shown on the bottom of the screen while you are entering a call into the call window after the second character has been entered. The calls shown are from the dupesheet and initial exchange memory only (not the name database or MASTER.DTA). A partial call is any call that starts with the same letters entered in the call window. The WILDCARD PARTIALS flag determines if the partial call must appear at the start of the call, or anywhere in the callsign.

PARTIAL CALL LOAD LOG ENABLE Values: True or False Default: False Control-J

Allows the partial call list and initial exchange list to be generated from the LOG.DAT file when starting the program. Normally you would not do this as the RESTART.BIN file has this information already. However, if you decided to delete the RESTART.BIN file or have edited your LOG.DAT file and you want to regenerate the partial call list from the LOG.DAT file, you should turn this feature on. It will take the program longer to read the LOG.DAT file with this feature enabled.

PARTIAL CALL MULT INFO ENABLE Values: True of False Default: True Control-J

When this flag is TRUE, you will be shown multiplier information for partial calls as you enter them. This is useful for checking domestic mults, country mults, prefix mults or zone mults. If you computer is too slow, you can disable this feature by setting the flag to FALSE.

POSSIBLE CALL ACCEPT KEY Values: Any character Default = ; (semi-colon)
POSSIBLE CALL LEFT KEY Values: Any character Default = , (comma)
POSSIBLE CALL RIGHT KEY Values: Any character Default = . (period)

When you are using the POSSIBLE CALL or PARTIAL CALL feature, you are shown a list of calls in the bottom of the operating screen. The first call shown will have a cursor around it (angled <brackets>). You can quickly move the callsign with the cursor around it to the call window with the POSSIBLE CALL ACCEPT KEY (semi-colon). You can move the cursor left of right with the POSSIBLE CALL LEFT KEY and POSSIBLE CALL RIGHT KEY.

POSSIBLE CALLS Values: True or False Default: False Control-J

When set TRUE, the possible call function is turned on. This will show you similar calls from the name database and your dupesheet when working a new station.

POSSIBLE CALL MODE Values: Names or All Default: Names Control-J

The possible calls which come from the TRMASTER.DTA file can either come from all of the calls, or only those with names associated with them. When set to NAMES, the operation is identical to older versions of TR which used the name database for possible calls.

PREFIX MULTIPLIER Values: NONE, PREFIX Default: CONTEST dependent

This command tells the program how to handle the prefix multiplier. It is normally set by the CONTEST statement in the LOGCFG.DAT file. See section 4.4.1 for more details.

PRINTER ENABLE Values: True or False Default: False Control-J

Controls printer operation. If you have a printer connected to the computer, you can have each contact printed as it is logged during the contest. Please note that the printer prints the contact as it leaves the editable window, so it will be five contacts behind you. Use the Alt-U command at the end of the contest to print the last five contacts.

PTT ENABLE Values: True or False Default: True Control-J

Determines if the PTT signal is active. The PTT signal is intended to be used to turn on your transmitter just before a CW message starts and turn it off as soon as the message being sent ends. If you are using break-in (QSK), you can disable this signal so your transmitter turns on and off with your CW.

PTT TURN ON DELAY Values: Integer Value Default: 15 Control-J

Determines the amount of time that elapses between the assertion of the PTT signal and the start of the first CW character. The value is multiplied by 1.7 milliseconds. A value of zero disables this feature.

QSL MESSAGE Legal Values: Any string Default: CONTEST dependent Alt-P - O
QSL CW MESSAGE
QSL SSB MESSAGE

The QSL Messages is sent when you are running stations and are finishing a QSO. Use QSL CW MESSAGE and QSL SSB MESSAGE when you want different messages depending on your mode.

QSL MODE Values: STANDARD, QSL AND LOG or QSL BUT NO LOG Default = Standard Control-J

The QSL MODE command can be used to change the criteria used to QSL an exchange and to log it when you are in the CQ Mode. Normally, the program requires the complete exchange to be entered before you can QSL and log the contact. However, if you select QSL MODE = QSL BUT NO LOG option, the QSL message will be sent even if the exchange information is not completed, but you need to finish entering the exchange and hit RETURN again before it will be logged. Another mode QSL AND LOG will totally eliminate any syntax checking on the exchange and log whatever you have entered. This mode is NOT suggested in normal operations. The QSL MODE can be changed while the program is running with the Control-J command.

QSO BEFORE MESSAGE Values: Any string Default: SRI QSO B4 73 \ TEST Alt-P - O
QSO BEFORE CW MESSAGE
QSO BEFORE SSB MESSAGE

The QSO BEFORE MESSAGE is sent when a dupe tries to work you. You will need to make sure it starts off with a space (if you want one) as it is sent right after the call. If you would rather send the exchange and just work dupes, turn AUTO DUPE ENABLE CQ to FALSE.

Use QSO BEFORE CW MESSAGE and QSL BEFORE SSB MESSAGE for separate messages per mode.

QSO BY BAND Values: True or False Default: CONTEST dependent
QSO BY MODE

These switches determine if QSOs can be counted again on different bands or modes. These parameters are set up automatically when the CONTEST statement in your LOGCFG.DAT file is executed and normally do not require any changes.

QSO NUMBER BY BAND Values: True or False Default: False

When set to TRUE, QSO numbers shown on the screen, sent in a CW message with the # character, and shown in log entries of QSOs made will be calculated from the total number of contacts on the active band. This would be useful in a multi-transmitter situation where QSO numbers are being sent (i.e. CQ WPX contest).

QSO POINT METHOD Values: See section 4.4.3 Default: CONTEST dependent

The QSO POINT METHOD tells the program how to calculate QSO points for the contacts. It is normally set up by the CONTEST statement in your LOGCFG.DAT file. See section 4.4.3 for more details.

QSO POINTS DOMESTIC CW Values: Integer Default: -1 (disabled)
QSO POINTS DOMESTIC PHONE Values: Integer Default: -1 (disabled)
QSO POINTS DX CW Values: Integer Default: -1 (disabled)
QSO POINTS DX PHONE Values: Integer Default: -1 (disabled)

These parameters allow you to control the QSO point values for the class of QSOs indicated. These will over-ride any existing QSO point method for the contacts in the category indicated.

QSX ENABLE Values: True or False Default: True Control-J

This parameter determines if QSX information is decoded from packet spots. You might turn this off if you are a DX station and aren't interested in splits.

QTC ENABLE Values: True or False Default: CONTEST dependent

Normally turned on automatically by the program when the WAE contest is being set up. When you have enabled QTCs, you will need to remember that Control-Q is the magic key to send or receive QTCs (depending on whether or not you are in Europe).

QTC MINUTES Values: True or False Default: False

When true, this command will set up the QTC function to only send the minutes of QTC times that are in the same hour as the time previously sent.

QUESTION MARK CHAR Values: Any key Default: ? Control-J

Some keyboards require the use of a shift key to type the question mark. This command can be used to assign the ? key to any other key instead.

QUICK QSL KEY Values: Any key Default: \ (backwards slash)

When you are running stations on CW and are finishing a contact, normally you would press RETURN which would log the contact and send the QSL MESSAGE and log the contact. If you want to send the QUICK QSL MESSAGE instead, you would press the QUICK QSL KEY instead of RETURN.

QUICK QSL MESSAGE Values: Any string Default: TU Alt-P - O
QUICK QSL CW MESSAGE Values: Any string Default: none Alt-P - O
QUICK QSL SSB MESSAGE Values: Any string Default: none Alt-P - O

The QUICK QSL MESSAGE allows you to send a shorter message when you have a pileup. Pressing the QUICK QSL key will send this message and log the QSO.

Use QUICK QSL CW MESSAGE and QUICK QSL SSB message when you want separate messages depending on your mode.

RADIO ONE BAND OUTPUT PORT Values: 1, 2, 3 or NONE Default: None
RADIO TWO BAND OUTPUT PORT

You can send band information from either radio to a parallel port to control an external antenna switch. This command allows you to specify which port is used for each radio. There are four bits of information output using pins 2, 7, 8 and 9. Use the following table to determine the outputs. Values are shown in hex. Pin 9 is the MSB and pin 2 is the LSB. I logical one is output as a high voltage (+5 volts).

Band160 - 1	Band80 - 2	Band40 - 3	Band30 - 4	Band20 - 5	Band 17 - 6
Band15 - 7	Band12 - 8	Band10 - 9	Band6 - A	Band2 - B	Band222 - C
Band432 - D	Band902 - E	Band1GH - F	Other or none - all zeros		

This information can be connected to the Top Ten Devices interface to control your band switch. Note that the port can still be used for radio CW control, DVK interface and paddle input at the same time. See Appendix B for complete pin out information for the parallel port.

RADIO ONE BAUD RATE Values: 1200, 2400, 4800 Default: 4800
RADIO TWO BAUD RATE

If you are interfacing a radio to the computer using a serial link, the default baud rate is 4800 which works for most radios. However, if you need to change the baud rate use these commands.

RADIO ONE CONTROL PORT Values: SERIAL 1 to SERIAL 4 Default: None
RADIO TWO CONTROL PORT

Use these commands to specify the serial port to use for each radio interfaced.

RADIO ONE ID Values: Any character Default: null Character Control-J
RADIO TWO ID Values: Any character Default: null Character Control-J

These two commands allow you to specify a unique character to identify which radio was used to make QSOs in your log. The letter is appended to the QSO number. This feature can't be used along with the COMPUTER ID command.

RADIO ONE NAME Values: Any text string Default: Rig One
RADIO TWO NAME Values: Any text string Default: Rig Two

The program allows you to use two radios. You can switch between them using the Alt-R command. The name for each radio is shown in the lower left corner of the screen.

RADIO ONE RECEIVER ADDRESS Values: Any integer (base 10) Default: 4
RADIO TWO RECEIVER ADDRESS

Legal These two commands allow you to specify the receiver address when interfacing to an Icom or Ten-Tec radio. The radio will have a specific receiver address that the program needs to know in order to communicate to it. The number must be entered in base 10. Receiver addresses for some radios:

IC725 - 40 IC726 - 48 IC735 - 4 IC761 - 30 IC765 - 44 IC781 - 38 OMNI VI - 4

Note: The address for the OmniVI can be changed using the User Options Menu. The factory default if 4.

RADIO ONE TYPE Values: TSxxx, ICxxx, IC781, FT890, FT900, FT920, FT990, FT1000, FT1000MP
RADIO TWO TYPE Default: None

For each interfaced radio, you need to tell the program what type of radio you have connected. The Ten-Tec radios use the Icom protocol, so enter something like IC735 for them.

RADIO ONE UPDATE SECONDS Values: Any integer Default: 1 Control-J
RADIO TWO UPDATE SECONDS

These parameters control how often each radio is polled for frequency and mode data.

RANDOM CQ MODE Values: True or False Default: False Control-J

When set to TRUE, the Auto-CQ function will behave differently when selecting CQ MEMORY F1. Instead of always playing the message recorded in F1, the Auto-CQ procedure will randomly pick CQs from memories F1 through F4. This allows you to sound like you are awake.

RATE DISPLAY Values: QSOS or QSO POINTS Default: QSOs Control-J

The rate display can show either the QSO rate or QSO POINT rate.

RELAY CONTROL PORT Values: None, 1, 2 or 3 Default: None

The RELAY CONTROL PORT parameter is used to specify which port the relay control signal is located on. This signal comes out on pin 14 of the parallel port. It can be used to switch CW and PTT, or microphone connections to one radio or the other. A high voltage output is used to indicate that radio one is active. All of the two radio feature can be used with this signal. Note that this same pin is also available as a pull up for the paddle input. You can't use the same port for both functions.

REMAINING MULT DISPLAY MODE Values: NONE, ERASE, HILIGHT Default: HiLight Control-J

This command allows you to control how the remaining multiplier display will work. If it is set to NONE, there will not be any display of remaining multipliers. If set to ERASE, the multipliers will be removed from the list as they are worked. If set to HILIGHT, multipliers that you have not worked yet will be high-lighted.

REMINDER Values: See section 4.5 Default: None Alt-O

Reminders are messages that are programmed to be displayed at certain times. They may be programmed many different ways.

REPEAT S&P EXCHANGE Values: Any text string Default: null string Alt-P - O
REPEAT S&P CW EXCHANGE
REPEAT S&P SSB EXCHANGE

The REPEAT S&P EXCHANGE is sent in place of the S&P EXCHANGE if the S&P EXCHANGE has already been sent once. If it is blank, the S&P EXCHANGE will be resent.

Use REPEAT S&P CW EXCHANGE and REPEAT S&P SSB EXCHANGE for separate messages depending on your mode.

S&P EXCHANGE Values: Any string Default: CONTEST dependent Alt-P - O
S&P CW EXCHANGE
S&P SSB EXCHANGE

The S&P EXCHANGE gets sent when it is time to send your exchange in the S&P mode. This can be done by pressing F2, or RETURN when logging a S&P QSO. Use S&P CW EXCHANGE and S&P SSB EXCHANGE for different messages per mode.

SAY HI ENABLE Values: True or False Default: False Control-J

If you have programmed CW messages which include names from the TRMASTER database, SAY HI ENABLE will determine if the names are actually used. This allows you to program the messages with the names included, but turn them all off if you want without having to edit each message. Refer to section 4.2 to find the characters you can use to include names in CW messages. Refer to section 5.4 for more information on the TRMASTER database.

SAY HI RATE CUTOFF Values: Any integer Default: 200 Control-J

If you have SAY HI ENABLE set to TRUE and are saying hello to the stations who are in your name database, you can disable this feature if your rate exceeds the SAY HI RATE CUTOFF.

SCP MINIMUM CHARACTERS Values: 0, 3, 4, 5 Default: 0 Control-J

When this parameter is not zero, it enables the automatic super check partial feature. When you enter the number of characters specified, partial calls will be automatically displayed. You must have a TRMASTER.DTA file available for the program for this feature to work. Refer to section 5.4 for more information on this feature.

SEND COMPLETE FOUR LETTER CALL Values: True or False Default: False Control-J

The } character in a CW message will send the prefix or suffix of a corrected callsign. If you set this parameter to TRUE, it will send the complete callsign if it is only four characters in length.

SEND QSO IMMEDIATELY Values: True or False Default: True Control-J

This flag controls when a QSO is sent to the multi network. When FALSE, QSOs are passed onto the next computer when they scroll off the top of the editable window. When TRUE, the QSOs are passed on as soon as they appear at the bottom of the editable window. See section 5.9 for more details on how this flag affects the operation of the program.

SERIAL 5 PORT ADDRESS Values: Hex value Default: 0 (zero)
SERIAL 6 PORT ADDRESS Values: Hex value Default: 0 (zero)

If you need to use port addresses different than the ones displayed when doing the TR PORT command, you can specify the base I/O address to use for SERIAL 5 (or 6) with this command. If you have set this to a legal value, you can specify SERIAL 5 (or 6) for any of the serial port functions.

SHIFT KEY ENABLE Values: True or False Default: True Control-J

The shift keys can be used to adjust the RIT and frequency of some radios. To disable this feature, set this parameter to false.

SHORT INTEGERS Values: True or False Default: False Control-J

When set to TRUE will allow short abbreviations for some integers to be used when sent as part of a QSO number. The actual abbreviations that are used can be programmed using the Alt-P - Other command or the four commands shown below.

SHORT 0	Values: Any character	Default: T	Alt-P - O
SHORT 1	Values: Any character	Default: A	Alt-P - O
SHORT 2	Values: Any character	Default: 2	Alt-P - O
SHORT 9	Values: Any character	Default: N	Alt-P - O

If you have SHORT INTEGERS = TRUE, you can specify what abbreviations are used for 0, 1, 2, 9 and 0. These can be done from the Alt-P - Other menu, or using the commands shown in your LOGCFG.DAT file.

SHOW SEARCH AND POUNCE Values: True or False Default: False Control-J

When set to TRUE, QSOs made in the Search and Pounce mode will be marked with a $ after the QSO points.

SIMULATOR ENABLE Values: True or False Default: False Control-J

Controls the contest simulator. See section 5.5 for details on how to use the simulator.

SINGLE BAND SCORE Values: 160, 80, 40, 20, 15, 10 Default: None

The command SINGLE BAND SCORE can be used to force the score calculation to occur only for a single band. WARNING!! If you change the SINGLE BAND SCORE parameter during a contest, you will need to delete your RESTART.BIN file before restating the program.

SINGLE RADIO MODE Values: True or False Default: False Control-J

This command when true will prevent the Alt-R command from switching radios.

SKIP ACTIVE BAND Values: True or False Default: False Control-J

If you are using two radios, the SKIP ACTIVE BAND command (when True) will skip over the band of the other radio when switching bands using the AltB or AltV commands.

SLASH MARK CHARACTER Values: Any character Default: / Control-J

If you wish to use a different keyboard character to make the / mark, use this parameter to specify it. This is handy for some European style keyboards.

SPACE BAR DUPE CHECK ENABLE Values: True or False Control-J

Normally when you press the SPACE BAR with a callsign entered in the call window, the program will perform a dupe check on the callsign. If you press the SPACE BAR without a callsign in the window, you will be put into the search and pounce mode and your callsign will be sent. If you set SPACE BAR DUPE CHECK ENABLE = FALSE, you will always go into the search and pounce mode and send your call, even if you have something entered in the call window.

SPRINT QSY RULE Values: True or False Default: CONTEST dependent Control-J

If TRUE will automatically put you in the CQ mode after completing a search and pounce QSO. This eliminates you from having to manually do this. This flag is set automatically when the sprint contest is selected. See Section 6.6 for more information on how to operate the Sprint.

START SENDING NOW KEY Values: Any key Default: ‘ (the single quote key)

If you are running stations on CW and a station that has answered you has already finished sending his call, but you are not yet done typing his call, you can press the START SENDING NOW KEY. This will send the characters you have already typed in, and the ones you type in after hitting the key until you press RETURN. After pressing the RETURN, the normal exchange will be sent.

SWAP PADDLES Values: True or False Default: False Control-J

This parameter will swap the dit and dah inputs on the paddle port. This is handy if your paddle is wired backwards.

TAB MODE Values: NORMAL or CONTROLF Default: NORMAL Control-J

The tab mode determines how the tab key works when using the Alt-E editor. In the NORMAL mode, it moves the cursor to the next field of the log (i.e., from the callsign field to the exchange field). In the CONTROLF mode, the cursor will move to the start of the next word in the line (just like the Control-F key does).

TAIL END KEY Values: Any key Default:]

The TAIL END KEY allows you to respond to tail enders when finishing a CQ mode QSO. See section 5.0 for more information.

TAIL END MESSAGE Values: Any string Default: R Alt-P - O
TAIL END CW MESSAGE
TAIL END SSB MESSAGE

The TAIL END MESSAGES are sent if you are finishing a contact by pressing the tail end key. It is used to answer a call from a tailender station. Use TAIL END CW MESSAGE and TAIL END SSB MESSAGE if you want to have different messages on each mode.

TEN MINUTE RULE Values: NONE or TIME OF FIRST QSO Default: None Control-J

This parameter selects the mode for the TEN MINUTE RULE. The TIME OF FIRST QSO mode will display the elasped time since your first QSO on the active band.

TOTAL OFF TIME Values: Any integer minutes Default: 0 Control-J

This parameter keeps track of the accumulated off time from using the \OFF and \ON commands in the call window. If you need to reset the total off time to a different value, use this command. When used correctly, the time off/on feature can help prevent you from operating too many hours in the Sweepstakes.

TOTAL SCORE MESSAGE Values: See section 4.5 Default: None

Total score messages are displayed when your score has reached a certain level. See section 4.5 for more details.

TWO RADIO MODE Values: True or False Default: False Control-J

When set to TRUE puts you in the two radio mode. This mode is explained in section 5.1.

UNKNOWN COUNTRY FILE ENABLE Values: True or False Default: False

Controls the generation of the unknown country file. This file will list QSOs that have a callsign in an unknown country. This is a handy way to find calls that might be new multipliers for you. The file is named UNKNOWN.CTY as a default, but you can change it using the UNKNOWN COUNTRY FILE NAME command. You can also find unknown countries after the contest using POST's Multiplier Check procedure.

UNKNOWN COUNTRY FILE NAME Values: Any valid filename Default: UNKNOWN.CTY

The program will save log entries for QSOs with unknown countries to the specified file if UNKNOWN COUNTRY FILE ENABLE is TRUE.

UPDATE RESTART FILE ENABLE Values: True or False Default: True Control-J

Determines if the RESTART.BIN file is automatically updated after each contact, or only when exiting the program. The RESTART.BIN file allows the program to quickly restart without having to read in the LOG.DAT file resulting in quicker initialization. When this flag is set to TRUE, the RESTART.BIN file will be updated automatically after each contact. Otherwise, it will only be updated when you exit from the program. Refer to section 6.10 for more information on what the RESTART.BIN file does. There is also a report in the POST program that will show you the contents of the RESTART.BIN file.

USER INFO SHOWN Default: None Control-J

Legal Values:	NONE	CQ ZONE	CHECK SECTION	USER 1	USER 4	CUSTOM
	NAME	ITU ZONE	FOC NUMBER	USER 2	USER 5	
	QTH	OLD CALL	SECTION	USER 3	GRID	

The values correspond to fields in the TRMASTER database. Any one of these can be viewed in a window just below the call window for the station you are working. If you choose CUSTOM, your initial exchange will be built using the CUSTOM USER STRING. This allows you to choose multiple data fields and put them in any order.

VGA DISPLAY ENABLE Values: True of False Default: False Control-J

When the program starts up and if the visible dupesheet or band map are enabled, the program will switch to VGA mode if, and only if, this flag is set to TRUE in the LOGCFG.DAT file.

VHF BAND ENABLE Values: True or False Default: CONTEST dependent Control-J

When set to TRUE, will allow the selection of the VHF and UHF bands using the Alt-B and Alt-V keys.

VISIBLE DUPESHEET Values: True or False Default: CONTEST dependent Control-J

When set to TRUE will enable a complete dupesheet of the contacts you have made to be displayed. This dupesheet can hold about 200 calls when displayed as part of the normal operating screen. If you are using VGA and not displaying the band map, it will appear below the normal operating screen with increased capacity.

Initially the dupsheet will show the calls by call area in separate columns. If more than two columns run over with greater than 25 calls, it will switch to a run on column display. Finally, if the capacity of the column display is exceeded (about 300 calls), the display will switch to a horizontal format.

When the visible dupesheet is shown as part of the normal operating screen, the QSO INFORMATION and MULTIPLIER INFORMATION windows are disabled. The dupesheet also overwrites the multiplier totals. To view this information, use the Alt-E command to bring up the editor, and then press ESCAPE. Pressing ESCAPE again will rewrite the dupesheet.

Since the visible dupesheet is almost necessary to efficiently operate the sprint, it will be enabled automatically for that contest. Otherwise the default condition is off.

WAIT FOR STRENGTH Values: True or False Default: True Control-J

When using the [character in a CW message, the program will allow you to enter the strength of an RST by pressing a single numeric key. If WAIT FOR STRENGTH is TRUE, the program will wait for you to enter the strength before continuing the CW message. If WAIT FOR STRENGTH is FALSE and you haven't pressed a key by the time the program is ready to send the strength, it will act as if you had pressed the "9" key and proceed with the message.

WAKE UP TIME OUT Values: Any integer Default: 0 (zero = disabled) Control-J

The program can keep track of how many minutes have gone by since your last QSO. If this number reaches a programmable limit, an alarm will sound once a minute until you work somebody. This is useful for long contests where you operate until brain death and need 20 or 30 minutes to become functional again. Since this is a dangerous time to try to set an alarm, the program will automatically start counting the minutes. The wake up time out alarm is disabled if the alarm has been set.

WARC BAND ENABLE Values: True or False Default: CONTEST dependent Control-J

Allows you to operate on 30, 17 and 12 meters. Default is FALSE, unless you are in the GENERAL QSO mode.

WEIGHT Values: 0.5 to 1.5 Default: 1.0 Control-J

You can control the WEIGHT of the CW generated by the computer with the weight command. A value of 1.05 will add 5 percent to the dot and dash times.

WILDCARD PARTIALS Values: True or False Default: True Control-J

Determines how the partial call function works. When set to FALSE, only calls that start with the input call will be shown. When set to TRUE (the default), the input call can appear anywhere within the partial call. This allows you to do a partial call check with the prefix or suffix, instead of only the prefix. If your partial call function is working too slowly, you might try setting this flag to FALSE. This flag only affects the partial call display from the dupesheet. The super check partial display always will use wildcard partials.

YAESU RESPONSE TIMEOUT Values: Integer (milliseconds) Default: 100 Control-J

This parameter adjusts the amount of time TR waits for a response from an interfaced Yaesu radio before giving up on the response. The value of 100 milliseconds seems sufficient for all current radios. However, if you are having problems interfacing a radio, you might try increasing this value.

ZONE MULTIPLIER Values: See section 4.4.1 Default: CONTEST dependent

The zone multiplier tells the program how to handle the zone multipliers. It is normally set up by the CONTEST statement in your LOGCFG.DAT file. See section 4.4.1 for more details.

APPENDIX B - SUGGESTED INTERFACE CIRCUITS

SERIAL INTERFACE
(TNC - Radio control - network)

DB-25	DB-9	SIGNAL
2	3	Serial output from CPU.
3	2	Serial input to CPU.
7	5	Ground

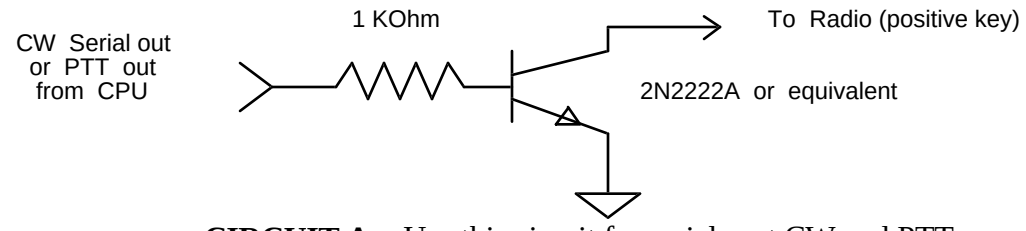
CW INTERFACE ON SERIAL PORT
(Same port can be used for serial communications)

DB-25	DB-9	SIGNAL
20	4	CW Key output. Use circuit A.
4	7	PTT out. Use another circuit A.
7	5	Ground.

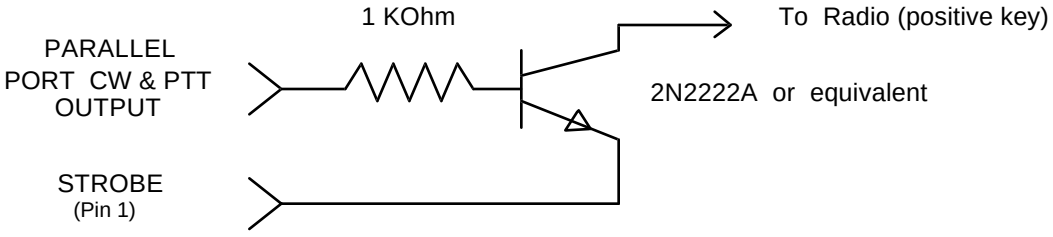
NOTE: Some TNCs or radio interfaces may require one or both of the following jumpers to work properly. These jumpers are not necessary on the computer side of the serial interface cable. DB-25: Jumper pin 6 to 8. Jumper pin 4 to 5. DB-9: Jumper pin 1 to 6. Jumper pin 4 to 7.

PARALLEL PORT PINS (CW, PADDLE, FOOT SWITCH, DVK & BAND OUTPUT)

DB-25	SIGNAL
1	STROBE. Goes to emitter of all circuit B transistors.
2	External relay band output bit 0 (see RADIO ONE BAND OUTPUT PORT) or DVK abort.
3	DVK output #1 (positive going pulse - see DVK PORT command).
4	DVK output #2.
5	DVK output #3.
6	DVK output #4.
7	External relay band output bit 1.
8	External relay band output bit 2.
9	External relay band output bit 3.
12	DIT paddle contact input. Connect a 10K pullup resistor between this pin and pin 14.
13	DAH paddle contact input. Connect a 10K pullup resistor between this pin and pin 14.
14	+5 volts pullup. If you are using the paddle or footswitch inputs, connect 10K pullup resistors between this pin and the paddle or foot switch inputs (one resistor per input). Pin 14 can also used for controlling an external relay to switch between two transmitters. See the RELAY CONTROL PORT entry in Appendix A for more information.
15	Foot switch input - see FOOT SWITCH PORT in Appendix A for more information.
16	PTT output. Use separate circuit B, goes to 1K resistor.
17	CW output. Use separate circuit B, goes to 1K resistor.
18	GROUND for CW and PTT (connect to radio).
25	GROUND for paddle



CIRCUIT A - Use this circuit for serial port CW and PTT



CIRCUIT B - Use this circuit for parallel port CW and PTT

APPENDIX C - W9XT CONTEST CARD MODIFICATIONS

The W9XT contest card comes standard with a CW output port. It can be modified to include PTT support and allow connection of your paddle. These instructions were provided by W9XT.

> ***Caution:*** *Making these modifications could void the FCC class B certification of the Contest Card. It will be your responsibility to see that proper steps are made to prevent interference to nearby radios TVs, etc. If interference occurs, you must stop using this device until you correct the problem. Furthermore, making this modification will void the warranty if, in the opinion of Unified Microsystems, damage occurred because of improper modifications or poor workmanship in making the changes.*

PTT CONTROL

This modification adds computer control to the PTT line of the Contest Card for CW operation. The PTT line comes out at pin 14 of the DB-25 connector. The Contest Card pulls the PTT line low during voice message playback. The following modification will also allow TR Log to pull the PTT line low during CW transmissions.

1) Cut the PC trace between U5 and R8 on the solder side of the board. Do not cut the trace that goes down to U3.

2) Obtain a 74LS02 IC and prepare as follows: Bend all of the leads up 90 degrees except 5, 7, 8 and 14; cut off the leads that were bent up; leave enough to solder wires to. This IC will now be referred to as U12.

3) Place the prepared U12 over U5 piggy back style. Make sure the pins align. Solder pins 5, 7, 8 and 14 of U5 and U12 together.

4) Add the following jumper wires:

U12-1 to U12-6.
U12-2 to U12-3 to U10-7.
U12-4 to U12-9.
U12-10 to U12-11 to U12-12.
U12-13 to R8 (the end towards the gold fingers).

This modification has been tested with TRLog and NA. Other programs, both radio related and others, could cause your transmitter to become keyed. Use at your own risk!

PADDLE INPUT

1) Add a wire from U11-1 to U11-15.

2) Install a 10K, 1/4W 5% resistor between U11-16 and U11-10.

3) Install a 10K, 1/4W 5% resistor between U3-14 and U 11-6.

4) Add a wire from J1 (the DB-25) pin 17 to U11-10 (including the resistor added in step 2). The wire connecting to J1 will need to be soldered to the pin on the solder side. You may wish to route and solder both ends of this wire on the solder side.

5) Add a wire from J1 (the DB-25) pin 18 to U11 pin 6 (including the resistor added in step 3). The wire connecting to J1 will need to be soldered to the pin on the solder side. You may wish to route and solder both ends of this wire on the solder side.

6) Jumper U11-9 to U9-9. Jumper U11-7 to U9-7.

7) Modify your cable as follows:

J1 pin 17 to the DOT contact on your keyer paddle
J1 pin 18 to the DASH contact on your keyer paddle
J1 pin 5 to the COMMON on your keyer paddle.

Note: There may already be a wire connected to pin 5 if you are using the optional record switch. Both the keyer COMMON and record switch GROUND wires may be connected to pin 5 if both are used.

INDEX

Q

R

S

T

U

V

W

Y

Z