

TR LOG

Contest Logging Software by N6TR

Version 6.79

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Chapter 1

General Description

TR-LOG is a high performance software package suitable for contests, DX-peditions or day-to-day operation. Some of its features are:

- Unsurpassed flexibility lets you tailor the program to your taste.
- Over 50 contests supported by the program - others can be added easily.
- Capacity for more than 50,000 QSOs.
- Simple operation with intelligent <ENTER> key - knows what you want to do.
- Send CW from 1 to 99 WPM
- Paddle input lets the program act as your keyer.
- Touching a paddle aborts computer-generated CW.
- Support for PTT with programmable delay to ensure that antenna relays are cold-switched.
- Expanded .DTA database format supports names, QTH, grid, SS check and other information.
- Automatic super check partial and possible call.
- DVP and DVK programmable voice memory support (including W9XT card).
- Bandmap with color-coded aging information.
- Packet interface with automatic insertion of spots into bandmap.
- Provision for responding to tailending stations on CW.
- Dynamic speed and weight control during CW messages.
- Support for RTTY when used with multi-mode TNCs.

- 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
- Remembers exchange information from band to band.
- Radio interface for Elecraft, Icom, Japan Radio, Kenwood, Ten-Tec and Yaesu rigs.
- Network multiple rigs with error detection and automatic retries.
- Integrated two-radio support.
- Uses standard CTY.DAT file for country and beam heading information.
- Powerful domestic templates allow easy updates and addition of new contests.
- Programmable list of remaining countries.
- User programmable window colors.
- Log files stored in easy-to-edit ASCII format.
- Active Internet reflector gives quick response to technical support questions.
- Free updates delivered via e-mail for one year after purchase.

Through the use of a configuration file (LOGCFG.DAT), 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 the parameters that may be programmed. Many of them can be changed while the program is running using the handy CTRL-J command.

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

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 <ENTER> will either send your call (if it is a new station) or tell you that it is a dupe. Pressing <ENTER> after copying the exchange will send

your exchange and log the contact. (It is worth reading that last sentence again, slowly, to make sure that you understand how easy it is to make a QSO in TR.)

Other useful tools for efficient search and pounce operation include a colour-coded bandmap and the way that the program highlights duplicate callsigns 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 <ENTER>, waiting for the station to send their exchange (*e.g.*, 599 and a zone which is already automatically entered for you by the program), and then pressing <ENTER> to log the contact and send a QSL message. This is a *total* of just six keystrokes for a four-character callsign. Some operators even eliminate the first <ENTER>, because the program can start sending the call after you have typed a programmable number of characters from the call, and it will start the exchange when it has caught up to your typing. See [AUTO SEND CHARACTER COUNT](#) and [AUTO CALL TERMINATE](#) for details. And just to make things insanely easy, you can even use a footswitch instead of the <ENTER> key.

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

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

When working a station, you will automatically be shown the bands on which 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 your current band and mode. For domestic multipliers, a complete list of remaining multipliers is shown. When the contest uses country multipliers, a programmable list of more than 90 countries can be shown. The multiplier status of countries not displayed can be checked explicitly by simply performing a dupe check. You can switch between displays showing remaining zones, domestic multipliers and countries with a single keystroke.

As you enter a callsign, matching partial calls from the dupesheet will be displayed automatically. After entering the call, a list of other stations with similar calls is displayed. These calls may be easily selected if you discover that 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. ITU and CQ zones are automatically entered for you in contests that include them as part of the exchange.

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. For more information on the simulator, see [section 6.6](#).

The `POST` utility program that comes with `TR-LOG` has a number of functions that simplify post-contest log processing. It can recheck your log for dupes, verify multipliers, accumulate QSO points and multiplier totals, print dupesheets, generate logs by band and mode, generate a disk file for the ARRL, create a sheet showing rate or QSO distribution by continent, edit your log, generate QSL labels in three different ways, edit the `.DTA` database, and other similar functions. See [section 6.19](#) for more details regarding the `POST` program.

Chapter 2

Quick Start

This chapter is designed for those who wish to run TR-LOG without all the fuss and bother of reading much of the manual. Be warned that TR-LOG is a complex program, and while you can get a flavour of its power simply by running it and relying on the content of this chapter, you will at some point have to force yourself to read the remainder of this manual so that you will have a true appreciation of the program's power and philosophy. In particular, you should be aware that TR-LOG operates very differently from CT, and if you are proficient with the latter, be prepared for a period of learning while becoming comfortable with TR-LOG.

2.1 Typographical Conventions

The carriage return key, marked *Return* or *Enter* on most keyboards, is denoted <ENTER>.

The floppy disk drive, which is drive **A:** on most systems, is denoted by the symbol: δ .

The hard disk drive on which TR-LOG is installed (most likely drive **C:**) is denoted by the symbol: Δ .

Commands that you are expected to type on the keyboard are rendered in a typewriter-like typeface:

```
dir  $\Delta$ :\log<ENTER>
```

(in this case you would replace Δ with the drive letter of your hard disk, probably C).

Certain commands require two keys to be pressed simultaneously. These keys comprise either the key marked **Ctrl** (or **Control**) or the key marked **Alt**, combined with another character, typically a letter. These combinations are denoted by CTRL- and ALT- respectively. For example, the Help command

ALT-H is issued by pressing the **Alt** and **H** keys simultaneously.

2.2 Installation from floppy disk

Place the floppy disk containing TR-LOG in one of your floppy drives, which we will denote by the symbol δ .

Change the current drive to be the floppy drive by typing:

```
 $\delta$ :<ENTER>
```

(Remember, δ stands for your floppy drive, most likely A.)

Change the working directory to be the root directory on the floppy drive by typing:

```
cd \<ENTER>
```

Now type the command:

```
install<ENTER>
```

This causes the installation program on the floppy disk to execute. You will be asked a series of questions. The opening screen is shown in Figure 2.1.

```
TR Log Installation Program Version 2.4

This program will install your copy of the TR Logging Program in the proper
directories.  If you already have your country file (CTY.DAT) installed,
you will be asked if you want to overwrite it.

Okay to proceed? (Y/N) :
```

FIGURE 2.1: INSTALLATION SCREEN 1

We assume that if you are reading this section on installation, this is the first time that you have installed TR-LOG. Therefore simply type **Y**.

The screen changes to Figure 2.2.

```
TR Log Installation Program Version 2.4

This program will install your copy of the TR Logging Program in the proper
directories.  If you already have your country file (CTY.DAT) installed,
you will be asked if you want to overwrite it.

Enter the drive you want to install the TR Logging Program on :
```

FIGURE 2.2: INSTALLATION SCREEN 2

Type the single letter of the drive on which you desire to install TR-LOG. Generally this will be the **C** drive.

The installation program then asks for the installation directory (Figure 2.3).

```
Directory you wish to install TR into (RETURN for \LOG) :
```

FIGURE 2.3: INSTALLATION SCREEN 3

Generally, you should just hit <ENTER> unless you have a good reason to choose another directory.

You will see a couple of brief messages about files being copied, and then you will be warned that your `AUTOEXEC.BAT` file does not include a reference to the `\LOG` directory with the message shown in Figure 2.4.

```
Your AUTOEXEC.BAT file does not have \LOG in it. This
will be necessary so you can run the TR and POST programs from any
directory. Do want it added to your path statement? (Y/N) :
```

FIGURE 2.4: INSTALLATION SCREEN 4

Generally, you should answer Y to this question. The only exception is if your system is configured to have a long pathname in its `CONFIG.SYS` (If you don't know what this means, just type Y; if you *do* know what it means, you don't need to be told how to add the `\LOG` directory to your path.)

The computer should now tell you that `TR-LOG` has been installed with something like Figure 2.5.

```
The directory C:\LOG has been added to your PATH statement.

Your original AUTOEXEC.BAT file has been saved as AUTOEXEC.OLD

The TR Logging Program has now been installed in C:\LOG
```

FIGURE 2.5: INSTALLATION SCREEN 5

2.3 Using TR-LOG For The First Time

The easiest way to use `TR-LOG` is to create an empty directory for the contest that you wish to enter¹. Change to that directory and then, to execute `TR-LOG`, simply type `TR<ENTER>`. The program will start and you will be asked to enter your name and call as in Figure 2.6:

Enter your name and callsign, followed by <ENTER>, as in the example in Figure 2.7.

¹Although if you are really entering a contest, you should read the whole of this manual, otherwise you are handicapping yourself unnecessarily.

```
Please enter your name and call :
```

FIGURE 2.6: EXECUTION SCREEN 1

```
Please enter your name and call : Doc Evans N7DR
```

FIGURE 2.7: EXECUTION SCREEN 2

The screen will go blank and will quickly be replaced by a startup screen as in Figure 2.8.

```

                                N6TR LOGGING PROGRAM

Version 6.79

Registered to Doc Evans, N7DR

Initializing program. Please wait
```

FIGURE 2.8: EXECUTION SCREEN 3

Almost immediately, this will be replaced by Figure 2.9

```

WELCOME TO THE TR LOGGING PROGRAM

Do you want to step through setting up a new contest? (Y/N) :
```

FIGURE 2.9: SETUP SCREEN 1

TR-LOG obtains its configuration information from a file called `LOGCFG.DAT`. This file can be created automatically the first time that TR-LOG runs. Type Y and TR-LOG will walk you through the steps needed to create a simple configuration file, starting with Figure 2.10.

Simply type your callsign, followed by `<ENTER>`. Now you will be prompted to choose the contest that you wish to operate (Figure 2.11).

Select the contest you want to operate with the cursor keys and then press `<ENTER>`². For your first practice outing, CQ WW is a good choice³.

TR-LOG then asks you about where to save your configuration (Figure 2.12).

²The screen you see might contain slightly different contests, since Tree frequently adds new ones.

³Note that if you select a state QSO party, TR-LOG will ask you for your state.

```

CONFIGURATION FILE GENERATOR

Enter your complete callsign (none to abort) :

```

FIGURE 2.10: SETUP SCREEN 2

```

Select the contest you wish to operate (use arrow keys) :

ARCI          CROATIAN          NRAU          SWEEPSTAKES
ARI           EUROPEAN HFC        NZ FIELD DAY  TEN TEN
ARRL 10       EUROPEAN VHF       OK DX        TEXAS QSO PARTY
ARRL 160      FIELD DAY          PACC         TOEC
ARRL DX       GENERAL QSO        QCWA         VK ZL
ARRL VHF QSO  GRID LOC          QCWA GOLDEN  WAE
ARRL VHF SS   HA DX             RAC          WAG
All Asian     HELVETIA          REGION 1 FIELD DAY WISCONSIN QSO PARTY
All JA       IARU              ROPOCO       WRTC
CAL QSO PARTY INTERNET SPRINT   RUSSIAN DX   WWL
COUNTY HUNTER IOTA             SAC          XMAS
CQ 160       JA INTERNATIONAL DX SALMON RUN   YO DX
CQ M         KCJ              SOUTH AMERICAN WW
CQ VHF       KVP             SP DX
CQ WPX       MINN QSO PARTY  SPRINT
CQ WW        NA QSO          STEW PERRY

```

FIGURE 2.11: SETUP SCREEN 3

```

TR is about to save this information to your configuration file. Normally,
the configuration file is called LOGCFG.DAT. However, you can choose to use
a name that is more descriptive, like 98SSCW.CFG. This will also allow you
to have different contest files reside in the same directory. Your log file
will be named 98SSCW.LOG instead of LOG.DAT, and the RESTART.BIN file will be
named 98SSCW.RST. The LOG.TMP file would be named 98SSCW.TMP.

If you have more than one set of files present when TR starts up, it will show
you a menu of the different contest files, and you can select which one to use.

Enter filename or just RETURN to use the default names :

```

FIGURE 2.12: SETUP SCREEN 4

TR-LOG allows you to keep the files for more than one contest in a single directory. Alternatively, some people prefer to keep the files for each contest separate, in different directories. For now, just hit <ENTER> to accept the default filenames.

The next screen (Figure 2.13) asks whether TR-LOG should display colour.

This is simple enough: if you have a colour screen, type C, otherwise type M.

TR-LOG contains a powerful contest simulator (see section 6.6) that allows you to spend many happy hours working DX from all over the world while

```

CONFIGURATION FILE GENERATOR

Do you want to use the Color or Monochrome palette? (C/M) :

```

FIGURE 2.13: SETUP SCREEN 5

honing your TR skills⁴. The next screen (Figure 2.14) asks you whether you want to use the simulator. For now, since we are setting up the program for a contest, type N.

```

Do you want to use the simulator? (Y/N) :

```

FIGURE 2.14: SETUP SCREEN 6

You can key your rig with TR-LOG, which is very useful during a real contest. For now, though, unless you already have a cable connecting the computer to the rig, respond to Figure 2.15 by typing N.

```

SET UP CW OUTPUT PORTS

If you are going to send CW from the program, you will need to tell the
program which port to use for each radio. The ports can be serial or
parallel. If you are using a serial port, you can optionally invert the
signal which make it easier to interface to a negative voltage radio. If
you select a parallel port, you can also specify the port to have a paddle
connected to it.

Do you want to set up a port to send CW with? (Y/N) :

```

FIGURE 2.15: SETUP SCREEN 7

Now TR-LOG asks if you have a computer-controllable rig connected to a serial port (Figure 2.16). Again, for now it is best to type N.

```

SET UP SERIAL INTERFACE TO RADIO CONNECTED TO COMPUTER

If you have a radio connected interfaced to your computer via a serial port
so that you can send and receive commands, you can answer these questions to
set up the interface. The default baud rate is 4800 baud. If you need a
different baud rate, add RADIO ONE BAUD RATE or RADIO TWO BAID RATE to your
config file after this procedure is over.

Do you want to set up a port for radio one? (Y/N) :

```

FIGURE 2.16: SETUP SCREEN 8

TR-LOG asks for packet information (Figure 2.17). As usual, type N.

⁴Unfortunately, it is tough to get QSLs for these QSOs.

```
SET UP PACKET PORT

If you have a packet TNC connected to your computer, this is where you can
tell the program which port the TNC is connected to. The default baud rate
is 4800 baud. There is no flow control used, and since some of the control
signals (RTS/CTS) can be used for CW or PTT signals, they should not be
connected to your cable. You might need to jumper RTS to CTS on the modem
to make it send characters to the computer.

Do you want to set up a serial packet port? (Y/N) :
```

FIGURE 2.17: SETUP SCREEN 9

TR-LOG gives you the opportunity to network several computers together for a multi-multi or multi-single operation (Figure 2.18). Type N to tell TR-LOG that you are not part of a computer network.

```
MULTI PORT SET UP

If you are using a multi network by connecting computers together with the
serial port, this is where you tell the program which port you are using.

You can also select a COMPUTER ID for this computer. The COMPUTER ID gets
appended to the QSO number for QSOs made on this computer. This allows you
to sort out the logs by computer after the contest (using POST).

Do you need to set up the multi port? (Y/N) :
```

FIGURE 2.18: SETUP SCREEN 10

Now (at last!) TR-LOG can write the configuration file that it will use to operate the contest. In our example it looks quite simple (Figure 2.19).

```
Your config file has been saved as LOGCFG.DAT. Here is what it
looks like:

MY CALL = N7DR
CONTEST = CQ WW
DISPLAY MODE = COLOR

Press any key to continue...
```

FIGURE 2.19: SETUP SCREEN 11

Pressing a key causes TR-LOG to display its working screen (Figure 2.20), and you are ready to start operating the contest. It is a good idea to check that the time displayed on the screen is correct before making a QSO. If the time is wrong, you can correct it by pressing ALT-T.

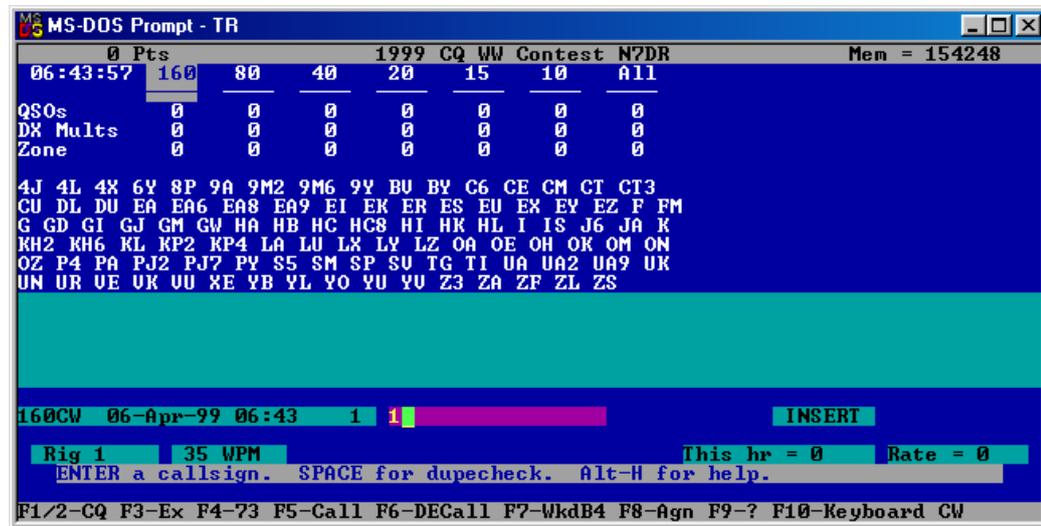


FIGURE 2.20: WORKING SCREEN

2.3.1 Your first QSO in CQ Mode

Try not to be intimidated by the working screen. It contains a lot of information to keep you abreast of your status within the contest. As you become more used to using TR-LOG, you will be grateful that the information is available without your having to remember arcane sequences of key presses to display it.

Unlike most other contesting software, TR-LOG is *not* modeless. What this means in practice is that its responses to your typing depend on its current state. This can be confusing at first, especially if you are used to operating a modeless program. Once you have mastered the concept of TR-LOG's modes, you are most of the way to using the program efficiently.

TR-LOG operates in two modes, known as *CQ Mode* and *S&P Mode* (“S&P” stands for “Search and Pounce”). The program begins in CQ Mode.

The screen shown in Figure 2.20 is divided into a number of windows (see Table 5.10). The cursor is initially at the left edge of the Call Window. Let's log an imaginary QSO in CQ Mode. The first thing you need to do is to call CQ. For now, assume that this is a CW contest. How do you call CQ? Easy! Just press <ENTER>. You should hear the following transmission coming from your PC's speaker at 35 wpm:

CQ TEST N7DR N7DR TEST⁵

⁵Of course, you should hear your own call, not the author's.

Now, pretend that someone has come back to your CQ. For now, let us assume that the station is G4AMJ. Type this callsign. As you press each key, the corresponding letter will appear in the Call Window. If you make a mistake, just use the backspace key on the keyboard to erase the most recent letter, then enter the correct letter. As soon as you have finished typing the callsign, press <ENTER>. Now you should hear the following from the PC speaker:

G4AMJ 5NN 4⁶

As soon as you pressed the <ENTER> key, a new window, the Exchange Window, will have appeared on the screen; TR-LOG's guess at what the station will send you (without the RST, which is assumed to be 599) will be in the Exchange Window, and your cursor will have moved to this new window.

Also, a new window will have appeared, showing you on what bands you still need a QSO with G4AMJ, and the bands for which G4AMJ is a needed multiplier (Figure 2.21).

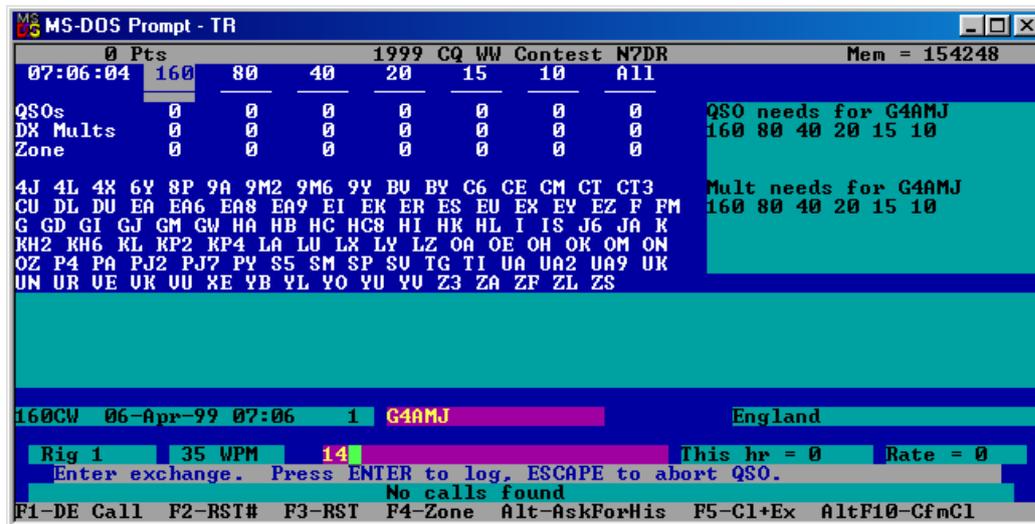


FIGURE 2.21: QSO IN CQ MODE

After the computer has finished sending, pretend that you have received an exchange from the station you are working. If the information is different from what the computer has guessed it to be, then simply replace the guess with the received information. If you made a mistake with the other station's call, you can enter the correct call in the Exchange Window and the program

⁶You should hear your own zone.

will automatically correct the other station's call before logging the QSO. If the received information matches the guess, you need do nothing. Now press **<ENTER>**, which will cause the computer to send a brief message to end the QSO. That's all there is to it. The QSO is complete and has been logged. It has been written to your disk, and it also appears on the line above the Call Window, a section of the screen called the "editable log".

The editable log is important. It shows the last five QSOs. Every time that you make a new QSO, the editable log scrolls upward by one line, and the topmost QSO disappears off the screen, to be entered into the permanent log⁷. If you need to change the contents of a prior QSO, *only the QSOs in the editable log may be changed from inside TR-LOG*. If you need to change the contents of a QSO that has scrolled off the top of the screen, you must do so with a separate text editor program. (The editable log is stored in a file called LOG.TMP; the permanent log is in LOG.DAT.) The best way of remembering to do this is to insert a note in the log with CTRL-N and then make the correction after the contest⁸.

Other things that happen once your QSO is complete are that the Exchange Window disappears and the cursor returns to the left edge of the Call Window. You will also notice that several other windows on the screen now display updated information, to reflect the QSO you just made, as shown in Figure 2.22.

But what are you waiting for? The cursor is sitting there blinking, waiting for you to make another QSO. Quick! Time is awasting. Somebody will steal your frequency if you don't hurry. Call CQ again by pressing **<ENTER>**. And now you're off, running stations for the first time with TR-LOG.

2.3.2 Your first QSO in S&P Mode

What if you want to call a station instead of calling CQ? That's what S&P Mode is for. To put yourself in S&P Mode, simply press the Tab key. The Exchange Window appears (if you are using a colour monitor, this window will be in a different colour than it has in CQ Mode, to remind you that you are in S&P Mode), as shown in Figure 2.23. Also, a message appears explicitly stating that you are in S&P Mode. Notice that your cursor has not

⁷At the end of a contest, you will be asked if the contest is over. Answering **yes** causes the last five QSOs to be entered into the permanent log. You can also do this manually at any time with the ALT-U command.

⁸Some people, at least initially, intensely dislike the inability to go back very far to edit a prior QSO during a contest. This, however, is a fundamental part of TR-LOG's design and is unlikely ever to change. In practice, the restriction to editing only the last five QSOs has never been important in the author's many years using the program.

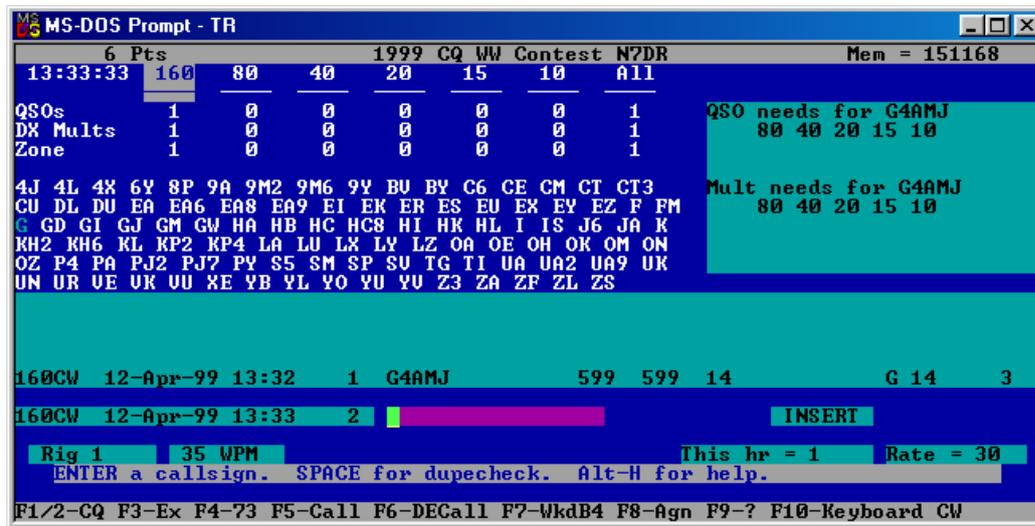


FIGURE 2.22: AFTER A QSO IN CQ MODE

yet moved from the Call Window (since TR-LOG does not yet know whom you intend to call).

Now, let's pretend that you have just come across a needed multiplier. Enter his callsign and then hit <ENTER>⁹. As soon as you press the <ENTER> key, TR-LOG will instantly check to see if the station is a dupe. If it is not a dupe, TR-LOG will call the station for you¹⁰, and the cursor moves down to the Exchange Window, as shown in Figure 2.24.

Just as in CQ Mode, you now type the exchange (if it's necessary; as before, the default RST is 599 and TR-LOG can usually enter the correct exchange information in the Exchange Window for you), followed by <ENTER>. The exchange will be sent and, as it is being transmitted, the QSO is logged.

To return to CQ Mode from S&P Mode, you may press either <ESC> or SHIFT-TAB¹¹.

In general, the <ESC> key is used to perform an emergency halt to whatever task TR-LOG is currently performing. With only a couple of exceptions, if TR-LOG is sending a CW or DVP message, pressing <ESC> once will instantly

⁹If you happen to have a valid TRMASTER.DTA file in your path, you will see activity in the line below the Call Window as you enter the call. The meaning of what is happening will be explained later, although you may find it interesting to watch carefully to see if you can decide for yourself just what TR-LOG is telling you. The default installation does not install a TRMASTER.DTA file, so this activity will not normally be visible.

¹⁰If the station *is* a dupe, TR-LOG will not call the station; also, the program will clearly display the word DUPE on the screen.

¹¹Unless `ESCAPE_EXITS_SEARCH_AND_POUNCE` is FALSE; the default, though, is TRUE.

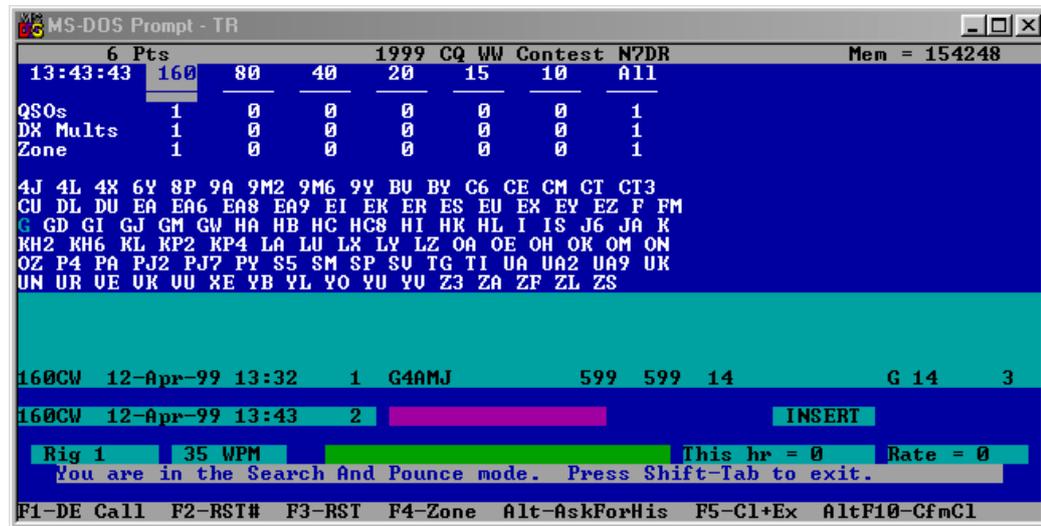


FIGURE 2.23: S&P MODE

abort the transmission. The two exceptions are: if you are performing some other action inside TR-LOG at the same time that the message is being sent (such as changing the CW memories or setting the alarm clock); or if you are using the simulator.

Sometimes, you will want to switch to S&P Mode and send your call, all in a single operation. This typically happens when you are scanning the band and have found a place you want to drop your call (perhaps to call someone). You can do this by simply pressing the space bar. This works if you are in 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 into the Call Window while your call is being sent. After you type it in, you should type ALT-Z. This will move the cursor down to the Exchange Window and enter into it any initial exchange information TR-LOG has for the station whom you are about to work (*e.g.*, name and QTH). Note that if you have a rig interfaced to the computer, you can cause TR-LOG to switch automatically to S&P Mode as soon as you begin to scan the band by using the [AUTO S&P ENABLE](#) command.

As we have seen, when TR-LOG begins to run, it reads a configuration file (usually LOGCFG.DAT; if there are .CFG files present in the current directory, TR-LOG lists them and allows you to choose the one you desire) from the current directory and uses the information contained therein to set many of its internal parameters. You can make changes to the configuration file,

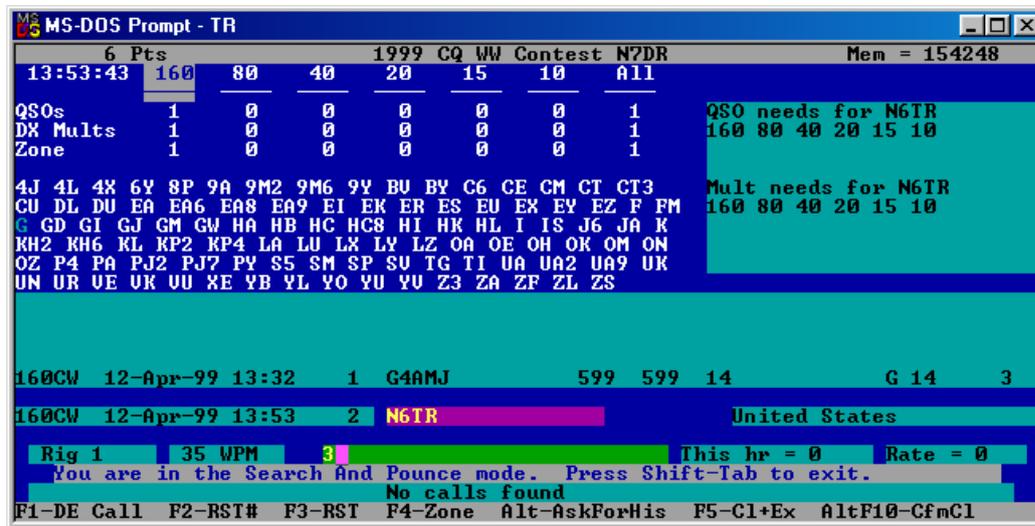


FIGURE 2.24: MAKING AN S&P MODE QSO

either within TR-LOG itself or by using an ordinary ASCII editor¹². In this way you can personalise the operation of TR-LOG so that it works in a way that suits you. Detailed information on how to make these changes is provided in chapter 5.

When TR-LOG is running, if you press ALT-H, the program will display a list of commands that you may execute. To obtain more specific information on a particular key, simply press that key after pressing ALT-H, and a few paragraphs will be displayed giving an overview of the function that is performed by that key. Note in particular the ALT-X command, which is used to exit TR-LOG.

The CTRL-J key is used to display and control many of the program's operating parameters, including most of those that are initialised by the configuration file. If you change a parameter with the CTRL-J command, TR-LOG will ask if you want to make that change in your configuration file, so that it will be remembered the next time that you start TR-LOG.

Almost all the parameters that can be changed in the configuration file will be given a default reasonable value if TR-LOG finds no specific entry for that parameter in the file. You may examine a configuration file by issuing the command:

```
TYPE config-file-name<ENTER>
```

(where `config-file-name` is the name of the configuration file) at the

¹²Not a word processor.

system prompt.

TR-LOG is supplied with a companion program called POST, which contains many functions that are useful before and after a contest. An overview of the capabilities of POST is in [section 6.19](#).

Chapter 3

System Requirements

TR-LOG is an MS-DOS program. It requires 512K of available RAM, but 640K is recommended. Extended and/or expanded memory is neither needed nor used if present. The program works only on 80286 or newer processors. A hard disk, or some other equivalent high-speed non-volatile storage, is necessary, because updates are made to the log file after each contact. Floppy disks are too slow to be used this way without slowing you down when running. The program can be used with either a monochrome or a colour monitor.

If you want the computer to send CW for you, you will need to connect either a serial or parallel port on your computer to your rig. The PTT signal is also supported on this connection and, in addition, you can connect your paddle to the parallel interface and use the computer as a keyer¹. There are schematics with suggested circuits in [Appendix B](#).

3.1 Windows Operating Systems

Depending on the version of your Windows operating system, you may be able to boot into MS-DOS mode and run TR-LOG directly as an MS-DOS program. Windows 95 and Windows 98 allow you to do this easily; in Windows ME it is less easy, but it can be done (see http://www.geocities.com/mfd4life_2000/). However, it may require some tweaking of your configuration in order to create enough memory in MS-DOS mode for TR-LOG to run effectively.

As long as you do not intend to use the multitasking features of these operating systems during the contest, it is often easier and just as effective simply to open a DOS box and execute TR-LOG within it. If you do this, you will probably want to run the DOS box in full-screen mode (you do this by

¹The author recommends using the computer to activate the PTT line.

hitting ALT-`<ENTER>` while within the DOS box; hitting ALT-`<ENTER>` a second time will cause the DOS box to return to its non-full-screen mode).

TR will *not* run completely properly in any version of Windows NT, Windows 2000 or Windows XP. This is due to a technical limitation in the way that MS-DOS programs are handled in these operating systems. If you use only a subset of TR-LOG's features (in particular, avoiding real-time operations such as sending CW) the program *may* perform adequately for your purposes. Also, if your computer is sufficiently fast and it is not running other high-priority programs, TR-LOG may run well enough for use in "battle conditions".

Similar comments apply to various MS-DOS emulators for other operating systems (such as Linux): the basic functionality will probably work, but the real-time aspects of the program may not function properly unless the computer is quite powerful and few other programs are running. If you succeed in running advanced TR-LOG functions inside such an emulator, please inform the author so that the information may be included in later versions of this manual.

3.2 Installation

The INSTALL program in the program package will (gasp!) install the program.

If you received the package on a floppy disk, put the disk in your drive, log onto it (*i.e.*, type: A:`<ENTER>`) and then run the INSTALL program by typing `install<ENTER>`.

If you received the package electronically, after you have unzipped it with an unzipping utility, go to the subdirectory where you placed the package and execute the INSTALL program (perhaps by typing it on a command line, or by double-clicking on it from within a file manager such as Windows Explorer).

INSTALL copies all the files from the floppy or the installation subdirectory to their final locations on your hard disk. If you are installing TR-LOG for the first time and have not yet read [Chapter 2](#), now would probably be a good time to do so.

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 allows you to execute TR-LOG, regardless of which directory you are logged into, simply by typing `TR<ENTER>`.

The installation program also takes care of various entries in your system CONFIG.SYS file. For example, the CONFIG.SYS file should have a line that reads:

FILES=30

(or some number larger than 30), in order to allow `POST` to process logs and to perform `TRMASTER` operations without errors.

Several different types of file are included in the `TR-LOG` package:

1. Executable (`.EXE`) files

- (a) `INSTALL.EXE` is used to install the logging program in the proper directory;
- (b) `TR.EXE` is the main logging program;
- (c) `POST.EXE` is used for post-contest and other utility chores;
- (d) `DVPTSR.EXE` is needed if you are using the CT digital voice processor (DVP) board (see [section 6.12](#)).

2. Overlay (`.OVR`) files

Overlay files are actually a part of the `.EXE` files, and are loaded when the corresponding `.EXE` files are run. For example, `POST.OVR` is part of `POST.EXE` and is used by `POST.EXE` when that program is run. These files cannot be mixed between versions of the `TR-LOG` package.

3. Domestic rule (`.DOM`) files

These files are contest specific and provide the information `TR-LOG` needs to determine multipliers and other scoring information. The files are in ordinary ASCII format; if you wish, you can view them to better understand their structure. If necessary, you can even edit them (carefully) to add other information. See [subsection 5.5.2](#) for more information.

4. The country (`CTY.DAT`) file

This file contains all the country information `TR-LOG` uses to determine such things as:

- which prefixes are valid for a country;
- which zone and continent the country is in;
- the country's time difference from GMT;
- the country's latitude and longitude (used to compute beam headings).

This file is in ordinary ASCII format and can be edited to add, modify or delete information. See [section 6.4](#) for more details.

5. FCONTEST.PAS

This is a Pascal source file that shows the code that sets the program up for each of the contests you can select. *It is not used by TR-LOG, so making changes to FCONTEST.PAS will not affect program operation.* It is provided as a reference file should you wish to see the defaults established for each contest. The names of the variables in the file in most cases match their corresponding LOGCFG.DAT parameters.

For example, [Figure 3.1](#) shows the part of the FCONTEST.PAS file that refers to the JA International DX contest. This file sets quite a few parameters to their correct values for this contest. As you can see from [Figure 3.1](#), the file first determines whether you are located in Japan and sets several parameters to values that depend on the answer to that question; it then sets some additional parameters regardless of your QTH.

3.3 Memory Considerations

Since TR-LOG is an MS-DOS program, the memory available to it is quite limited. The amount of memory used by the program depends somewhat on the program options chosen. To understand the total QSO capability of TR-LOG, you need a basic comprehension of how these options affect the available memory and how much memory it takes to store a contact. To help you know the memory situation during a contest, the free memory available to the program is displayed (in bytes) in the upper right hand corner of the screen.

When you start TR-LOG the amount of free memory as indicated on the screen should be in excess of 100,000 bytes. If the displayed value is much below 100,000, then you should probably take steps to free up some space. Running the MS-DOS program MEMMAKER will usually do this for you automatically. This program is distributed with MS-DOS versions 5.0 and later. In extreme cases, you might need to eliminate some of your loaded drivers and/or other Terminate-and-Stay-Resident (TSR) programs before using TR-LOG.

If you run TR-LOG with the dupesheet enabled ([DUPE SHEET ENABLE](#) is TRUE), the dupesheet may use a considerable amount of memory over the course of a long contest. A dupesheet comprises an unbounded number of “blocks” of 800 bytes each. A callsign containing six or fewer characters is stored in a manner that occupies four bytes, so a single block holds 200 calls. Whenever a block is filled and TR-LOG needs to add a new call to

```
IF (CMD = 'JA INTERNATIONAL DX') OR (CMD = 'JIDX') THEN
BEGIN
IF MyCountry = 'JA' THEN
BEGIN
ActiveDXMult := ARRLDXCC;
ActiveInitialExchange := ZoneInitialExchange;
ActiveExchange := RSTZoneExchange;
ActiveZoneMult := CQZones;
END
ELSE
BEGIN
ActiveDomesticMult := DomesticFile;
ActiveExchange := RSTPrefectureExchange;
DomesticQTHDataFileName := 'JIDX.DOM';
END;

ActiveQSOPointMethod := JapanInternationalDXQSOPointMethod;
ContestName := 'Japan International DX Test';
MultByBand := True;
MultByMode := False;
QSOByBand := True;
QSOByMode := False;
CountryTable.ZoneMode := CQZoneMode;
FoundContest := True;
END;
```

FIGURE 3.1: FCONTEST.PAS EXAMPLE

the dupesheet, a new block is allocated. Therefore, a dupesheet that contains one call will take up as much memory as one with 200 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 (the same is true for contests in which contacts may be made on multiple modes). Callsigns do not enter the dupesheet until they have left the editable log (which is the most recent five QSOs). There is a separate set of 800-byte blocks for calls that are longer than six characters (calls may have a maximum of twelve characters); these hold a maximum of 100 calls. If memory is getting low, you can stop further calls from being added to the dupesheet by setting `DUPE SHEET ENABLE` to `FALSE`.

Multiplier sheets use different amounts of space depending on which multipliers are used in the contest. The country and zone sheets for the CQ WW use a total of 1,800 bytes for each band on which you have made at least one QSO.

Finally, the partial call and initial exchange list uses five bytes per entry. Memory for this list is allocated in 1,000-byte blocks; hence, each block holds 200 calls. A call appears only once in this list, regardless of the number of different bands and modes on which the station has been worked. The partial call list can be turned off by setting `PARTIAL CALL LIST` to `FALSE`.

The initial exchange memory can hold a maximum of 1,000 unique initial exchanges (of up to 12 characters each). For most contests, this is adequate because there are less than 1,000 different possibilities for the exchange.

So, if you are working the CQ WW contest, and are expecting to work about 3,000 different stations in a total of about 6,000 contacts, spread across six bands, then we can estimate your memory needs as follows:

Partial call: $3,000 \text{ calls} \times 5 \text{ bytes per call} = 15,000 \text{ bytes}$
Dupesheet: $6,000 \text{ calls} \times 4 \text{ bytes per call} = 24,000 \text{ bytes}$
Multipliers: $6 \text{ bands} \times 1,800 \text{ bytes per band} = 10,800 \text{ bytes}$

So you will need at least 50,000 bytes of free memory when you start the program. To be safe, of course, you should include a reasonable margin of safety.

If you are using the `TRMASTER.DTA` file for super check partials or database functions, you will need to have another 40,000 bytes available for the program to use when processing the file. (It is normal to see your available memory drop by about 40,000 bytes when you first access the `TRMASTER` database.

If your free memory drops near zero, `TR-LOG` will automatically inform you that it has disabled the `TRMASTER` functions, which frees about 40,000 bytes and allows you to continue operating the contest without having to stop. This

should be adequate to allow you to finish almost any conceivable contest.

3.4 Running TR-LOG on a Slow Computer

If you run TR-LOG on a very old computer, you may find that the program responds too slowly under some circumstances. Several optimisations have been made as TR-LOG has evolved, so that, although performance was adequate when slow machines were the norm, this is not necessarily true when older machines are used to run current versions of the program.

By changing the values of several of TR-LOG's parameters, you may find that performance is improved. The slowest subsystem on computers is typically the input/output system (*i.e.*, reading and writing from/to disk). Several changes can be made to the program's operation to minimise use of this subsystem:

1. If you have sufficient memory, try using the MS-DOS SMARTDRV program. For details, see Section 7.1.11².
2. You can turn off some TR-LOG functions to reduce disk activity.

After the first five QSOs are logged (*i.e.*, the editable log is filled), the program performs the following operations every time you log a QSO:

- Writes a QSO to the .TMP log file
- Writes the QSO to the restart file, RESTART.BIN
- Transfers a QSO from the .TMP file to the .LOG file.

One way to speed this process is to eliminate one of the disk writes by setting `UPDATE RESTART FILE ENABLE` to FALSE. This turns off the function that causes the restart file to be updated, hence removing one of the disk writes. The disadvantage to this is that if your computer crashes you will not have a restart file available when TR-LOG restarts, which means that all of your exchange memory data will be lost. In contests such as CQ WW or Sweepstakes this does not present a problem, but in other contests you might find it annoying that you have to copy the exchange again when you work stations that you have already worked on other bands or modes.

3. Setting `POSSIBLE CALLS` to FALSE will decrease disk activity.

²The author does not recommend the use of write-caching, although many TR-LOG users have found that it can be used safely

4. Disabling the Super Check Partial (SCP) feature will decrease disk activity. You disable this feature by setting [SCP MINIMUM LETTERS](#) to a value less than 3.

Chapter 4

More about using TR-LOG

4.1 Getting Started

The last chapter told you how to install TR-LOG and how to begin to start using the program. However, TR-LOG is much, much more powerful than we have seen so far. The purpose of this chapter is to give you a gentle introduction to some of that power.

Let's start a brand new contest, and see in more detail how to use TR-LOG efficiently.

When TR-LOG first starts, your cursor will be in the Call Window and you will be in CQ Mode. If the contest permits QSOs on multiple bands and/or modes, use ALT-B or ALT-V to select the desired band and ALT-M to select the desired mode¹. Press <ENTER> with an empty 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 to program the CQ function key memories.

If a station has answered your CQ, type his callsign into the Call Window 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 then 0 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 0 for the "other" message menu.

There is a lot of information in the last couple of paragraphs. Spend a bit

¹ALT-B moves one band higher in frequency, ALT-V moves one band lower. If your rig is interfaced to TR-LOG, the rig will change bands in sync with the changes on the TR-LOG screen.

of time with TR-LOG working through the possibilities we have just described, so that you begin to get a feel for some of the basic operation of the program.

If you are in SSB mode, and wish to log a report other than the default 59, you may do so if **LOOK FOR RST SENT** is TRUE by entering the transmitted report, preceded by the letter S, in the Exchange Window. For example, to log a transmitted report of 55, enter **S55** into the Exchange Window.

On 6m and 2m, transmitted and received reports may be followed by the letter A to indicate auroral conditions.

The other mode of operation is S&P Mode (“Search and Pounce Mode”). To enter this mode from CQ Mode, press the <TAB> key. The Exchange Window will appear and, if you are using a colour monitor, it will be a different colour than when you are in CQ Mode.

Imagine yourself scanning the band and coming across a station that you want to call. You type in the callsign and then press <ENTER>. If the station is not a dupe, TR-LOG will send your callsign. The cursor will move to the Exchange Window and you can type in the exchange that you receive. When it is time to send your exchange, press <ENTER> again. TR-LOG will send the **S&P EXCHANGE** and log the contact. You can view the S&P EXCHANGE by using the ALT-P command under the 0 (for “other messages”) menu.

To exit from S&P Mode, press SHIFT-TAB or, if **ESCAPE EXITS SEARCH AND POUNCE** is TRUE, <Esc>. The <ESC> key is context-sensitive, and should do the thing you most expect whenever it is pressed. With a couple of exceptions, if the program is sending a CW or DVP message, pressing <ESC> once will instantly abort the message and do nothing else. The exceptions are: (1) if you are performing some other action (like entering a new CW message or setting the alarm clock); and (2) 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, which causes input from the keyboard to be ignored while CW is being sent. This does not happen in a real contest: in a contest, TR-LOG accepts keyboard input even when it is sending CW.

The ALT-P command gives you the ability to program CW and Phone memories while TR-LOG is running. When you change a message, an entry will be appended to your LOGCFG.DAT file. This file contains commands that configure TR-LOG when the program is starting up, including how it should 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 CQ Mode (ALT-P, followed by C) and one for S&P Mode, which is also used when sending the exchange in CQ Mode (ALT-P, followed by E).

The reason that the S&P Mode messages are used when the Exchange Window is visible in CQ Mode is that it turns out in practice that when you are in the middle of a CQ Mode QSO, it is the S&P Mode messages that are more useful than the ordinary CQ Mode messages. This sounds complicated, but in practice you can place a reminder bar across the bottom of the screen, to indicate what messages are available at any given time (see [CQ MENU](#) and [EX MENU](#)).

Another set of CW memories is used 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, followed by 0.

Pressing ALT-H will show you a list of commands that can be executed while TR-LOG is running. You should review each of these and make sure that you have at least a nodding familiarity with them. To obtain more information on a specific key, just press that key, and one or more paragraphs will be displayed, explaining that function in more detail.

Pressing CTRL- causes a special information screen (called the *CT1BOH info screen*) to be displayed. This screen shows a number of useful distributions that help you to see how much time you have spent on each band, as well as displaying a band-by-band continental breakdown.

The CTRL-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. Try pressing CTRL-J to see what values may be changed; if you press <ESC>, you will exit and return to the main program without making any changes. The cursor keys allow you to move around the menu, or you may press the first letter of a parameter to jump to the set of parameters beginning with that letter. Entering more characters (after the first) allows you to jump to the first parameter whose name begins with the characters you have entered. The <ENTER> key is used to change the value of the currently-selected parameter.

To exit TR-LOG completely, use the ALT-X command.

When you first started TR-LOG and answered the installation 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. LOGCFG.DAT is a simple text file, and therefore 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 placed into the LOGCFG.DAT file, see [chapter 5](#). The complete list of available commands is in [Appendix A](#).

Almost all the LOGCFG.DAT parameters have default values, some of which are determined automatically by the contest that you have selected. This means that you do not have to specify all of the parameters found in [Appendix A](#) in order to use TR-LOG (and when you see the size of [Appendix A](#), I'm sure that you will agree that this is a Very Good Thing). In fact, it

is possible to use TR-LOG with only two entries in the LOGCFG.DAT file: the contest you want to operate and your callsign.

A simple LOGCFG.DAT file might look like Figure 4.1.

```
MY CALL = N6TR
CONTEST = CQ WW
DISPLAY MODE = COLOR
SIMULATOR ENABLE = TRUE
KEYER OUTPUT PORT = PARALLEL 1
PADDLE PORT = 1
PADDLE SPEED = 32
```

FIGURE 4.1: SIMPLE LOGCFG.DAT FILE

The LOGCFG.DAT file in Figure 4.1 would tell the program that your call is N6TR, that you want to operate the CQ WW contest, that you are using a colour monitor, that you want to use the contest simulator, that your CW interface is connected to parallel port 1 on your computer, that you also have a paddle connected to parallel port 1, and the paddle will send CW at 32 WPM.

In addition to the TR-LOG program itself, the package comes with a program called POST. POST has many post-contest functions that are useful after the contest, including the ability to generate summary sheets and Cabrillo files. See [section 6.19](#) for more details of the POST program.

4.2 The Easy Way to Configure the Program

If you followed the steps in Chapter 2 to operate your first contest, you might find this section useful in configuring the program to operate your next contest.

Many users prefer to run each contest from a different directory. Since files in the current directory take precedence over files in the \LOG directory, this allows users to customize ancillary files such as the TRMASTER.DTA file separately for each contest. In the following examples the actual directories as used by one of our power users are shown.

A sub-directory called CONTESTS is created below the LOG directory (where the installation puts the program files by default) and then sub directories of \LOG\CONTESTS are created for each contest as you configure TR-LOG for each contest in turn. For example, you might create sub-directories named

SS03CW, IARU03, SAC02, CQ02CW and SS02SSB, and in each sub-directory, you would place all the files specific to that contest.

You do not need to have separate copies of the TR-LOG or POST programs in each of these directories. Instead, you just need to make sure that the directory where the program files are located (typically, C:\LOG) is included in your PATH environment variable.

Here, then, are the steps one would take in order to prepare for the CW Sweepstakes contest in the year 2004:

From the C: prompt:

```
CD \LOG\CONTESTS<ENTER> (to enter the CONTESTS subdirectory)
MD SS2004CW<ENTER> (to create the new sub-directory)
CD SS2004CW<ENTER> (to enter the new sub-directory)
TR<ENTER> (to start TR-LOG)
```

At this point TR-LOG will ask you if you want to go through the creation of a LOGCFG.DAT file — answer Y.

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

Not all users like to have each contest in a separate directory, and TR-LOG can also maintain multiple configuration files in a single directory. To configure a new contest in a directory from which a contest has already been run, start the program by typing TR NEW<ENTER> instead of just typing TR<ENTER>. This tells TR-LOG that you want to configure a new contest within this directory. TR-LOG will now walk you through a series of steps similar to those when the program was first configured. You will be asked the name of the output file for the configuration information. *If the file already exists, it will be silently overwritten.* Normally, you should choose a descriptive filename for that particular contest. (You are permitted to use a total of only eight characters in the filename, and no special characters such as spaces are permitted.) The configuration file will be given the name you choose, with the extension .CFG.

When you start TR-LOG in a directory in which there are multiple configuration files, the program will present you with a list of the configuration files from which you may choose the correct one for the contest that you wish to operate. (If TR-LOG finds only a single configuration file, it simply uses that one to configure itself and skips the step of offering you a choice.)

Many changes can be made while the program is running within the CTRL-J menu. This is often easier than editing the LOGCFG.DAT file with a text editor. A couple of parameters that you might be interested in changing once you have used the program for a while in a contest are [AUTO DUPE](#)

ENABLE CQ and [CONFIRM EDIT CHANGES](#). You can jump ahead to specific entries after executing the CTRL-J command by pressing the first few letters of the name of the parameter that you wish to change.

When you have made all your desired changes in the CTRL-J menu, press ALT-G to save those changes to your LOGCFG.DAT file so that they will be executed the next time that you start TR-LOG. Exit the CTRL-J menu by pressing <Esc>.

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 are perfectly adequate, but some contests require you to enter specific exchange information when sending exchanges (such as your name, precedence, check, QTH, etc.).

To examine the CW messages, use the ALT-P command. You should check the [CQ EXCHANGE](#), [S&P EXCHANGE](#) and [QSL MESSAGE](#) under the (0)ther menu, and the various CQ and EXCHANGE function messages if you intend to use them.

The final step before using TR-LOG is to exit the program to set up your rig interface, TNC interface and any other things that cannot be configured from the CTRL-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 then refer to it from within the LOGCFG.DAT file with a single command. This saves you from having to re-enter this information each contest. In the LOGCFG.DAT file, the [INPUT CONFIG FILE](#) defines the file that TR-LOG will use to configure this information.

Note, however, that the process used to manage the [INPUT CONFIG FILE](#) can be a bit confusing. The file defined with the [INPUT CONFIG FILE](#) command is read *after* the ordinary configuration file; *i.e.*, the [INPUT CONFIG FILE](#) command does *not* operate like a normal programming “include” statement that inserts the contents of the named file at that point in the standard configuration file.

Also note that even if you use the [INPUT CONFIG FILE](#) command, you will still be asked all the questions that TR-LOG thinks it needs to know in order to configure the program properly — because it does not realise that it will later be reading a configuration file that contains these values. Just answer the questions with any answer you like; the correct values will overwrite your responses when TR-LOG finally gets around to processing the [INPUT CONFIG FILE](#).

There is one other optional configuration file. If you place a file called STDCFG.DAT *in the same directory* as TR.EXE, the commands contained in that file will be executed *before* the commands in the ordinary configuration file LOGCFG.DAT. This allows you to place a set of “standard” configuration

parameters in `STDCFG.DAT`, and then override any of these as desired for a particular contest.

As we mentioned earlier, if there is more than one configuration file in the working directory, `TR-LOG` will present you with a menu of choices from which you may select the correct one for the contest that you are about to operate. You may use the `` key to delete or move particular files.

You may also start `TR-LOG` by typing: `TR <filename><ENTER>`, in which case `TR-LOG` will look for the file `<filename>.CFG` and, if it finds it, the program will load that file and use it to configure itself.

After you have generated and/or edited the various configuration files, you should always work a few test QSOs to make sure the program is working the way that you expect before the contest actually starts. Just before the contest really begins, exit `TR-LOG` and delete the `RESTART.BIN`, `LOG.DAT` and `LOG.TMP` files that were probably created while you were testing the configuration. Now you are ready to type `TR<ENTER>` and operate the contest.

Figure 4.2 shows a sample `LOGCFG.DAT` file, and Figure 4.3 shows an example input configuration file.

```
; Created by TR at startup
MY CALL = K5TR
CONTEST = sweepstakes

; Added by text editor
INPUT CONFIG FILE = \LOG\K5TR.CFG

; Created by TR at startup
DISPLAY MODE = COLOR
KEYER OUTPUT PORT = PARALLEL 1
PADDLE PORT = 1

; Created using CTRL-J
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
PADDLE SPEED = 32
TWO RADIO MODE = TRUE
WEIGHT = 1.05
SHOW SEARCH AND POUNCE = TRUE

; Created using ALT-P
CQ EXCHANGE = # B K5TR 76 STX
REPEAT S&P EXCHANGE = # B K5TR 76 STX
S&P EXCHANGE = # B K5TR 76 STX
QUICK QSL MESSAGE = TU K5TR
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 \ \
```

FIGURE 4.2: MORE COMPLICATED LOGCFG.DAT FILE

```
; Created by 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
```

FIGURE 4.3: INPUT CONFIGURATION FILE

Chapter 5

LOGCFG.DAT Configuration File

TR-LOG is the most flexible contest logging program available. A plethora of parameters can be adjusted to suit your taste and the needs of the particular contest you are entering. Most parameters can be adjusted while the program is running by using the CTRL-J command. In the alternative, they can be set when TR-LOG begins to execute by placing appropriate commands in the LOGCFG.DAT configuration file.

LOGCFG.DAT must be accessible to TR-LOG when the latter first starts. If TR-LOG cannot find the LOGCFG.DAT file when it starts, it will ask you some questions and generate a minimal LOGCFG.DAT file for you. At a minimum, this file must contain two lines, setting the [MY CALL](#) and [CONTEST](#) parameters, as in Figure 5.1.

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

FIGURE 5.1: MINIMAL LOGCFG.DAT FILE

This minimal LOGCFG.DAT file will tell TR-LOG what your callsign is and for which of the many possible contests you want the program to configure itself. The [MY CALL](#) command must always be the first command found in any LOGCFG.DAT file.

A complete list of all the available LOGCFG.DAT commands is provided in [Appendix A](#). This list identifies the legal values for each parameter, shows which commands can be viewed or changed with the CTRL-J or other commands, and gives a description of how each command works. You might also want to check the READ.ME file included with your program package, in case new commands have been added since the most recent update of the manual.

All entries in the LOGCFG.DAT file have the format shown in Figure 5.1: the name of the parameter you wish to set, an equals sign, then the value for the parameter:

PARAMETER-NAME = PARAMETER-VALUE

If an illegal parameter-name or parameter-value is specified, an error message will be generated and TR-LOG will halt. In this manual, all entries are shown in upper case, but the actual commands in a LOGCFG.DAT file are case-insensitive.

Comments may be placed into the file by preceding them with a semi-colon. If the semi-colon is the first character on a line, the entire line is treated as a comment. Otherwise, any time a line contains a space followed by a semi-colon, then the remainder of the line is treated as a comment. (This allows you to insert a semi-colon – without a preceding space – into a string used for rig control without the rest of the line being interpreted as a comment.)

You can change over one hundred different LOGCFG.DAT parameters while the program is running by using the CTRL-J command. This command displays a menu that shows the names of the parameters that you can adjust, along with the current value of each such parameter. 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. Pressing ALT-W will write the single parameter that the cursor is currently highlighting; pressing ALT-G will update all the parameters you changed during the current execution of the CTRL-J command.

You can edit the LOGCFG.DAT file manually during a contest, but if you do so you must restart TR-LOG and you may also need to erase the RESTART.BIN file in order for the changes to take effect.

The LOGCFG.DAT configuration file gives you a lot of power to control how TR-LOG operates. Once you go beyond the usual combinations of commands, you can create situations where the program does not behave correctly. If this happens, Tree or the helpful people on the TR-LOG reflector will be happy to help you figure out what is going on. You should be prepared to supply a copy of your LOGCFG.DAT file, to help people diagnose your problem.

Remember, except for the MY CALL and CONTEST commands, all of the LOGCFG.DAT commands have default values. You do not need to have an entry in your file for these other commands. You only need to have entries if you want the value to be different from the defaults that are listed in Appendix A. As you will see when you explore Appendix A, some of the default values depend on the value of the CONTEST parameter; this automatic intelligent setting of default values can significantly reduce the number of entries you need to place in the LOGCFG.DAT file.

5.1 Selecting a Contest

The second line of the LOGCFG.DAT file usually defines the contest for which you intend to use TR-LOG. The syntax is the usual

```
CONTEST = NAME
```

TR-LOG will accept the name of all major contests and many minor ones. When naming a contest, a large number of internal TR-LOG parameters are automatically configured appropriately for that contest. This saves you from having to check every one of the parameters and deciding how to set them for this particular contest. If you are interested, you can look in the FCONTEST.PAS file that is included with the package to see how TR-LOG configures itself. For the state QSO parties, TR-LOG can only configure itself correctly if it already knows your state, so for these contests make sure that a MY STATE command appears in the file before the CONTEST command. Table 5.1 lists all the possible values of the CONTEST command.

Many other contests in addition to those listed in Table 5.1 may be operated by adding a few commands to the LOGCFG.DAT file. If you wish to enter a contest that is not a simple adaptation of a pre-existing one, Tree can often add new features that will allow you to operate it. If you send him information on the contest, he will probably try to add it.

5.2 Programming CW Messages

You can use the ALT-P command to program CW messages while TR-LOG is running. TR-LOG maintains three types of CW messages: CQ messages, EXCHANGE messages and OTHER messages. When you execute the ALT-P command, you are asked to select among these types of messages.

- CQ messages are sent when you press a function key while in CQ Mode.
- EXCHANGE messages are sent when you are in the Exchange Mode or S&P Mode. Refer to chapter 6 for a description of these modes.
- OTHER messages are those that might be sent during the QSO process, such as the CQ EXCHANGE, S&P EXCHANGE and QSL MESSAGE messages.

Any changes you make via the ALT-P command will be permanently saved in your LOGCFG.DAT file.

Contest	Comment	Contest	Comment
All Asian		All JA	
AP Sprint	Asia-Pacific Sprint	ARCI	
ARI		ARRL 10	
ARRL 160		ARRL DX	
ARRL RTTY Roundup		ARRL VHF QSO	
ARRL VHF SS		Baltic	
Cal QSO Party		County Hunter	
CQ 160		CQ M	
CQ VHF		CQ WPX	
CQ WPX RTTY		CQ WW	
CQ WW RTTY		Croatian	
European HFC		European Sprint	
European VHF		Field Day	ARRL
FISTS		Florida QSO Party	or FQP
General QSO	RST, QTH, Name	Grid Loc	
HA DX		Helvetia	
IARU		Internet Sprint	
IOTA		JA International DX	
KCJ		Kids Day	
KVP		Mich QSO Party	
MN QSO Party		NA QSO	
New England QSO		NRAU Baltic	
NZ Field Day		Oceania	
Ohio QSO Party		OK DX	
PACC		QCWA	No scoring
QCWA Golden	No scoring	RAC	
Region One Field Day		ROPOCO	
Russian DX		SAC	
Salmon Run		South American WW	
SP DX	Non-SP	Sprint	
Stew Perry		Sweepstakes	
Ten Ten		Texas QSO Party	
TOEC		UBA	
Ukranian		WAE	
WAG		Wisconsin QSO Party	or WQP
World Wide Locator	or WWL	WRTC	
WRTC 2002		XMAS	
YO DX			

TABLE 5.1: ALLOWED CONTESTS

Character	Brief Name	MS-DOS value	Unicode value	Sends
Ä	A-diaeresis	132	U+00C4	di-dah-di-dah
Å	A-ring-above	134	U+00C5	di-dah-dah-di-dah
Ö	O-diaeresis	148	U+00D6	dah-dah-dah-dit

TABLE 5.2: NON-ENGLISH CHARACTERS

In addition to the ASCII character set, some special characters may be typed on some non-English keyboards and can be sent in CW messages, as in [Table 5.2](#).

There are some special characters that can be inserted into CW messages in order to send special sequences, intelligent messages or to execute special functions. These are described in [Table 5.3](#).

For example, to send a QSO number as part of a CW message, simply place a # in the message at the position where you want the number to be sent. So a simple exchange of RST and contest QSO number would look like this:

CQ EXCHANGE = 5NN #

In addition to the characters in [Table 5.3](#), you can insert so-called “control characters” into CW messages. Control characters are special characters that computers normally interpret as non-printing characters but which may be used to perform specialised functions.

We will try to make this a little clearer for those who are not conversant with the concept of control characters.

Normal printing characters are assigned particular values inside the computer’s memory. In MS-DOS, the letter “A”, for example, is stored as the value “65”. A control character is a number (like the “65” in the above example) that does not refer to a letter, but to a particular function. The number “7” for example, is normally interpreted under MS-DOS to mean “beep the speaker briefly”. TR-LOG allows you to enter control characters into CW messages and, instead of the computer interpreting them in the usual manner, either TR-LOG interprets them itself, or TR-LOG may send them to a computer-controlled rig, and the rig will then interpret the control characters in a manner defined by the rig’s manufacturer.

Control characters typically correspond to the values that the computer receives when you press the “control” key in combination with some other character. A CTRL-A, for example, is control character #1, and is obtained by pressing the control key at the same time as the “A” key. The value of

Character	Purpose
#	Send QSO Number. Can be followed by + or - and a single integer to modify the number sent
@	Send call in Call Window
*	Same as “@” unless an ALT-D call (dupe check and work call on inactive radio) is available, in which case the ALT-D call is sent. This is a quick way to allow you to program a CW message for the second radio when you are on the first radio
\$	Send salutation and name if known (<i>e.g.</i> , GE TREE). Adds a space at the end of message. See subsection 5.3.2
%	Send name from name database (adds a space at end if name present) See subsection 5.3.2
:	Send characters from keyboard until <ENTER> or <ESC> is pressed
~	Send proper salutation without name (GM, GA or GE) based upon callsign. See subsection 5.3.2
\	Send call as set by MY CALL command
	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 the last complete RST sent with the [command
_	Space (use at the start or end of a message, where spaces in the LOGCFG.DAT file are ignored)
^	Half-length space
}	Send prefix or suffix only of corrected call (only when callsign has been changed since QSO began)
{	Send complete corrected call (only when callsign has been changed since QSO began)
)	Send callsign of last QSO in the editable log
(Send name received in previous Sprint QSO (at the bottom of the editable log)
>	Clear RIT - requires interfaced radio; only works with Kenwood and Yaesu rigs
+	End of message (AR)
<	End of work (SK)
=	Pause (BT)
!	QRL? (SN or VE)
&	QRX (AS)

TABLE 5.3: SPECIAL CW CHARACTERS

a control character corresponds to its position in the alphabet, so CTRL-Z is control character #26.

There are two ways to enter control characters into either the LOGCFG.DAT configuration file or when using the ALT-P menu to edit messages:

1. You may enter control characters by using the syntax <xx>, where xx is the two-character *hexadecimal* code for the required character. So, for example, you could enter a CTRL-C with the sequence <03>.
2. You may enter a control character by pressing the CTRL-P key, followed by the desired control key¹. Using this syntax, you would include a CTRL-C by pressing, in sequence, CTRL-P CTRL-C.

The control characters that you may place in a CW message are described briefly in Table 5.4. A more detailed description of the functions follows.

Character	Function
CTRL-A	Send this message on inactive radio
CTRL-B	Identify CTRL-A message as a CQ
CTRL-C	Start special command
CTRL-D	Do not interrupt
CTRL-R	Send a random five-character group
CTRL-T	Repeat the most recent random five-character group
CTRL-U	Update TR-LOG's notion of the call you came back to
CTRL-W	Send penultimate received Sprint name
CTRL-[@	Conditionally send contents of the Call Window

TABLE 5.4: CW CONTROL CHARACTERS

ctrl-A

Send this message on inactive radio. If you put this at the start of a message, the message will be sent on the inactive radio. For example, in Sweepstakes, you might program one of the exchange memory keys with CTRL-A CQSS CQSS \² \ SS. Then you can have TR-LOG send this message while copying an exchange on your other radio.

¹This works when using the ALT-P menu to edit a message; it may or may not work inside the particular editor that you choose to use to edit LOGCFG.DAT

²Remember that a \ causes your call to be sent.

ctrl-B

Identifies a message that is sent using CTRL-A as a CQ. This allows TR-LOG to respond correctly if you receive an answer to the CQ sent by the CTRL-A command. If you start to enter characters into the Call Window before sending any other CW messages (excepting QSL messages signalling the completion of a QSO), the program will assume that you are entering the call of a station that has answered the CQ you just sent on the inactive radio. It will therefore automatically switch radios so you can return to the station and complete the QSO on the inactive radio.

ctrl-C

Program a command. Allows you to program a function key to execute a command instead of sending CW characters on the air. To use, put a CTRL-C at the start of the message, one of the commands from [Table 5.5](#), followed by a CTRL-D. The commands in [Table 5.5](#) are described in more detail later in this section. All commands are executed at the start of the message, regardless of where in the message they appear. See [subsection 5.3.1](#) for more details of how to send special messages for your radio.

ctrl-D

Do not interrupt. Normally, if you press a function key while a message is in progress, the message being sent will abort and the new message (the one associated with the pressed function key) will start. However, if you put a CTRL-D at the start of a message, TR-LOG will allow the first message to complete before the new message (the one with the CTRL-D) is sent.

In addition, the CTRL-D character is interpreted as a space if a prior message is being sent, so that there is a space between the first message and the second one. You can place several CTRL-D characters at the start of the message for a longer space. The spaces inserted by one or more CTRL-D characters are not sent if the message containing them is activated when no message is being sent.

ctrl-R

Random code group. Generate and send a pseudo-random five-character code group. This is used in the SSA XMAS contest. The code group will be logged if you are using the RST QSO Number And Random Characters exchange — which is the default for the XMAS contest.

ctrl-T

Command	Meaning
BANDDOWN	Go to next band lower in frequency (same as pressing ALT-V)
BANDUP	Go to next band higher in frequency (same as pressing ALT-B)
CQMODE	Forces TR-LOG to enter CQ Mode
CWMONITOROFF	Turn off monitoring of CW on the computer speaker
CWMONITORON	Turn on monitoring of CW on the computer speaker
DUPECHECK	Dupecheck the call in the Call Window
EXCHANGERADIOS	Exchange the frequencies on the active and inactive radios
LASTCQFREQ	Go to last frequency where you called CQ
LOGLASTCALL	Log the last call that appeared in the Call Window
NEXTBANDMAP	Go to frequency of next (higher frequency) unworked station in the bandmap (current band/mode)
NEXTDISPLAYEDBANDMAP	Go to frequency of next (higher frequency) unworked station in the bandmap (any band/mode)
NEXTMULTBANDMAP	Go to frequency of next (higher frequency) multiplier in the bandmap (current band/mode)
NEXTMULTDISPLAYEDBANDMAP	Go to frequency of next (higher frequency) multiplier in the bandmap (any band/mode)
SAPMODE	Forces TR-LOG to enter S&P Mode
SPEED	Change CW speed
SWAPRADIOS	Swap the active and inactive radios
TOGGLECW	Toggles sending of CW (same as pressing ALT-K)
TOGGLEMODES	Toggles mode between CW and SSB

TABLE 5.5: CW SPECIAL COMMANDS

Repeat random code group. Repeats the last-generated pseudo-random code group (generated with the CTRL-R command). This is useful if you need to re-send the exchange in the SSA XMAS contest.

ctrl-U

Update call of record. TR-LOG maintains an internal variable with the name `CallsignICameBackTo`, which represents the program's notion of the call that you are working. Normally, this variable is updated automatically when you send the ALT-F10 message (which defaults to `Is your call xxxx?`, where `xxxx` is the contents of the Call Window.

When a CTRL-U is found in a message and `CALLSIGN UPDATE ENABLE` is FALSE, the call in the Call Window becomes the call of record for the QSO and will be used at the time that the QSO is logged to determine whether the `CALL OK NOW MESSAGE` needs to be sent. If instead `CALLSIGN UPDATE ENABLE` is TRUE, CTRL-U will use the call in the Exchange Window as the call of record instead of the call in the Call Window.

ctrl-W

Send penultimate Internet Sprint name. This sends the name that you received two QSOs earlier in the Internet Sprint contest. This is useful if you have already logged a QSO but need to re-send the exchange (since the name that you have to send is now the name you received *two* QSOs back in the log).

ctrl-[@

(CTRL-[, followed by the @ character) Conditionally send the contents of the Call Window. If the Call Window contains a ? character, this command causes TR-LOG to send a space, followed by the contents of the Call Window.

The CTRL-[character is the “escape” control character, ASCII code number 27. It may not be easy to produce this character on some keyboards designed for other than the English language. On all keyboards, however, you should be able to produce the correct character by pressing the Alt key and then, keeping the Alt key pressed, typing the sequence `027` *on the numeric keypad*.

The CTRL-C and CTRL-D characters may be used to bracket a special command, effectively assigning a special function to a key normally used for sending CW. If you forget to include the terminating CTRL-D, TR-LOG will ignore everything in the message, starting at the CTRL-C character. The

supported commands that may appear inside the bracketing CTRL-C and CTRL-D characters are listed in [Table 5.5](#) and detailed here.

BANDDOWN

Moves the rig down in frequency by one band (the same as pressing ALT-V).

BANDUP

Moves the rig up in frequency by one band (the same as pressing ALT-B).

CQMODE

Forces TR-LOG to enter CQ Mode.

CWMONITOROFF

Turns off monitoring of CW on the computer speaker.

CWMONITORON

Turns on monitoring of CW on the computer speaker.

DUPECHECK

Dupechecks the call in the Call Window.

EXCHANGERADIOS

Exchanges the frequencies on the active and inactive rigs. This command makes it easier to find a new run frequency on the second rig (presumably not using the better antenna system) and then swap it quickly to the primary antenna. This feature does not support split-mode operation nor setting VFO B (*i.e.*, only data for VFO A are exchanged).

LASTCQFREQ

Moves the rig to last frequency where you called CQ, clears the Call Window, and puts you into CQ Mode.

LOGLASTCALL

Logs the last call that appeared in the Call Window.

NEXTBANDMAP

Advances you to the frequency of the next (*i.e.*, higher frequency) unworked entry in the bandmap for the current band and mode. Also puts you into S&P Mode.

NEXTDISPLAYEDBANDMAP

Advances you to the frequency of the next (*i.e.*, higher frequency) unworked entry in the bandmap, regardless of the band and mode of that entry. Also puts you into S&P Mode.

NEXTMULTBANDMAP

Advances you to the frequency of the next (*i.e.*, higher frequency) needed multiplier in the bandmap for the current band and mode. Also puts you into S&P Mode.

NEXTMULTDISPLAYEDBANDMAP

Advances you to the frequency of the next (*i.e.*, higher frequency) needed multiplier in the bandmap, regardless of the band and mode of that entry. Also puts you into S&P Mode.

SAPMODE

Forces TR-LOG to enter S&P Mode.

SPEED

Changes CW speed. If followed by a numeric value, this command changes the CW to that speed (measured in words per minute). If followed by one or more + or - characters, this command changes the CW by 6% for each + or - character.

SWAPRADIO

Swaps the active and inactive rigs.

TOGGLECW

Toggles sending — sending, not monitoring — of CW (same as pressing ALT-K).

TOGGLEMODES

Toggles mode between CW and SSB.

Several of the commands listed above may be sent to the inactive rig by preceding them with a CTRL-A (or, equivalently, <01>). The commands that may be sent in this way to the inactive rig are listed in [Table 5.6](#).

The commands in [Table 5.7](#) can be used to change the speed or weight of transmitted CW during a message. You can use multiple commands for bigger changes. At the end of a message, the speed and weight automatically revert to the values they had at the start of the message.

The commands in [Table 5.8](#) can be used to generate dits and dahs of various lengths. This allows you to generate CW characters with a distinctive

LASTCQFREQ
NEXTBANDMAP
NEXTDISPLAYEDBANDMAP
NEXTMULTBANDMAP
NEXTMULTDISPLAYEDBANDMAP

TABLE 5.6: COMMANDS FOR INACTIVE RADIO

Character	Function
CTRL-F	Increase speed by 6%
CTRL-S	Decrease speed by 6%
CTRL-X	Decrease weight by 0.03
CTRL-Y	Increase weight by 0.03

Table 5.7: Speed/Weight Commands

personality. Since the distinctive-length dits and dahs are followed by an intra-character space, these commands can also be combined with normal CW characters so that, for example, you can create a 6 with a distinctive long dah by sending a CTRL-O followed by an H.

If you enter control characters in most MS-DOS (and some Windows) editors, you may see strange symbols on the screen in place of the control characters³. Figure 5.2 should help you to correlate the visible symbol and the underlying control character that it represents. The leftmost column in the Figure is the character number, where, for example, CTRL-A is the first character, CTRL-I would be the ninth character, etc. The middle column contains the hex codes used in the <xx> format.

There is also a group of commands that can control the Farnsworth CW feature within a CW message. For details of Farnsworth CW and these commands, see [section 6.15](#).

[Table 5.9](#) is a list of other special messages that can be programmed in the LOGCFG.DAT configuration file. You can also program most of these messages with the ALT-P command (under the Other menu of the ALT-P command) while the program is running. Each of these messages is described more fully in [Appendix A](#).

In addition, the keypad may be used to send additional messages if [KEYPAD CW MEMORIES](#) is TRUE. These messages use the characters CTRL-F1 (sent when the keypad zero is pressed) to CTRL-F10 (sent when

³You can circumvent this by using the <xx> format to enter control characters

Character	Function
CTRL-P	Dit 60% of normal duration
CTRL-Q	Dit 80% of normal duration
CTRL-\	Normal dit
CTRL-V	Dit 120% of normal duration
CTRL-L	Dit 140% of normal duration
CTRL-E	Dah 73% of normal duration
CTRL-D	Dah 87% of normal duration
CTRL-K	Normal dah
CTRL-N	Dah 113% of normal duration
CTRL-O	Dah 127% of normal duration
-	Dah 150% of normal duration

TABLE 5.8: CW CHARACTER LENGTH COMMANDS

0 00	16 10	▶
1 01 ☺	17 11 ◀	
2 02 ☻	18 12 †	
3 03 ♥	19 13 !!	
4 04 ♦	20 14 ¶	
5 05 ♣	21 15 §	
6 06 ♠	22 16 =	
7 07 •	23 17 ‡	
8 08 ■	24 18 ↑	
9 09 ○	25 19 ↓	
10 0A □	26 1A →	
11 0B ♂	27 1B ←	
12 0C ♀	28 1C ⊥	
13 0D ♪	29 1D ↔	
14 0E ♫	30 1E ▲	
15 0F ✱	31 1F ▼	

FIGURE 5.2: APPEARANCE OF CONTROL CHARACTERS

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	Sent in place of CQ EXCHANGE in the case that the name of the operator of the other station is known
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
CQ MEMORY CTRLF1 to CQ MEMORY CTRLF10	Sent by pressing CTRL-F1 to CTRL-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
EX MEMORY CTRLF1 to EX MEMORY CTRLF10	Sent by pressing CTRL-F1 to CTRL-F10 in Exchange Mode
QSL MESSAGE	Sent when concluding a QSO in CQ Mode
QSO BEFORE MESSAGE	Sent if a dupe calls you while in CQ Mode and if AUTO DUPE ENABLE CQ is TRUE.
QUICK QSL MESSAGE	Sent if the QUICK QSL KEY was pressed to complete a QSO
QUICK QSL MESSAGE 2	Sent if the QUICK QSL KEY 2 was pressed to complete a QSO. This message cannot be programmed via the ALT-P command.
REPEAT S&P EXCHANGE	Sent if F2 is pressed to repeat the S&P Exchange.
S&P EXCHANGE	Sent if F2 or <ENTER> is pressed in S&P Mode while the cursor is in the Exchange Window
TAIL END MESSAGE	Sent if the TAIL END KEY was pressed

TABLE 5.9: PROGRAMMABLE CW MESSAGES

the keypad nine is pressed).

5.3 Custom Messages

5.3.1 Sending Messages to the Rig

If your rig is interfaced to TR-LOG (see [section 6.9](#)) it is possible to use the CTRL-C (and the corresponding CTRL-D) command described in [section 5.2](#) to send custom messages to the rig.

The following sequences are used (we use the <xx> form of the CTRL-C and CTRL-D commands for clarity):

- <03>SRS=send this string<04> sends “send this string” to the active radio
- <03>SRSI=send this string<04> sends “send this string” to the inactive radio
- <03>SRS1=send this string<04> sends “send this string” radio number 1
- <03>SRS2=send this string<04> sends “send this string” radio number 2

For example, most Kenwood rigs use the FL command to control the use of filters, so you might program a key with the sequence

```
<03>SRS=FL010009;<04>
```

Pressing this function key during the contest will then cause the rig to switch to the narrow filter.

5.3.2 Personalised Greetings

TR-LOG allows you to send greetings that are customised to include the name of the operator at the other end, the time of day, and his country.

The % character in a message will send the name of the operator at the other end, if it is present in the name database. (Note that if the name is “Club”, it will not be sent.)

The ~ character will send a time-of-day greeting (GM, GA or GE) as appropriate, depending on the time of day at the QTH of the station whom you are working.

The `$` character combines these two functions, sending the time-of-day greeting followed by the name (if it is known, and as long as it is not “Club”).

The time-of-day greeting can be replaced with a greeting that does not change, but does depend on the country with which you are in contact. This is accomplished by the presence of a file called `HELLO.DAT`, either in the working directory or in the `TR-LOG` default directory (usually `\LOG`).

The format of the `HELLO.DAT` file is simple; it is an ordinary text file, with one greeting per line in the format:

```
country-prefix greeting
```

An example is shown in [Figure 5.3](#).

```
DL MOIN
EA GRS
EU ZDR
F BJR
I CIAO
LA HEI
OH HEI
OK AHOJ
OM AHOJ
SM HEJ
UA ZDR
UR ZDR
VK GDAY
```

FIGURE 5.3: EXAMPLE HELLO.DAT FILE

5.4 Programming Window Colours

The `LOGCFG.DAT` file can be used to select the colours used for any of the windows when using a colour monitor.

If you set `DISPLAY MODE` to `MONO`, `TR-LOG` will operate in monochrome mode, even on a colour monitor. If you set `DISPLAY MODE` to `COLOR`, then you can control many of the colours that `TR-LOG` will use to display various messages and windows on the screen.

It is important to remember that (perhaps unintuitively) the **DISPLAY MODE** command must come *after* all the commands that configure the colours, otherwise the commands will be ignored.

For each window used by TR-LOG, there is a background colour and a foreground colour that can be specified. The colours that TR-LOG understands are: Black, Blue, Green, Cyan, Red, Magenta, Brown, Light Gray, Dark Gray, Yellow, Light Blue, Light Green, Light Cyan, Light Red, Light Magenta, and White.

The names of the windows whose colours may be modified are listed in [Table 5.10](#), and an example of how to set window colours is in [Figure 5.4](#).

To set the foreground colour to Yellow and the background color to Blue for the Call Window, you could put the following commands into your LOGCFG.DAT file:

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

FIGURE 5.4: SETTING WINDOW COLOUR

There are some other colors you can program:

REMAINING MULTS WINDOW SUBDUE COLOR

Selects the colour 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 S&P Mode. Setting this to a unique color helps to make it more obvious when you are in S&P Mode.

SCP WINDOW DUPE COLOR

Sets the colour of dupes in the Super Check Partial display.

SCP WINDOW DUPE BACKGROUND

Sets the background colour against which dupes appear 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 effect.

Name	Description
ALARM WINDOW	Shown when alarm is set
BAND MAP WINDOW	Shows bandmap or dupesheet at bottom of screen
BAND MODE WINDOW	Shows band and mode (near date)
BEAM HEADING WINDOW	Shows beam headings
BIG WINDOW	Used for CTRL-J and CTRL-O displays
CALL WINDOW	Where calls are entered
CLOCK WINDOW	Displays the time (near the date)
CODE SPEED WINDOW	Lower left, WPM
CONTEST TITLE WINDOW	Top centre
DATE WINDOW	Displays the date (near the time)
DUPE INFO WINDOW	Just below the free memory window
DUPESHEET WINDOW	Covers the editable log when active
EDITABLE LOG WINDOW	Five lines above the 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 the Call Window
MULTIPLIER INFORMATION WINDOW	Upper right when active
NAME PERCENTAGE WINDOW	Bottom right in %
NAME SENT WINDOW	To the right of the Call Window
POSSIBLE CALL WINDOW	Second line from bottom
QSO INFORMATION WINDOW	Upper right when active
QSO NUMBER WINDOW	Between the Call Window and the Exchange Window
QUICK COMMAND WINDOW	Third line from bottom
RADIO ONE WINDOW	Name of radio number one, when that rig is active
RADIO TWO WINDOW	Name of radio number two, when that rig is active
RADIO WINDOW	The name of the radio (both names if there are two rigs)
RATE WINDOW	Lower right, QSOs per hour
REMAINING MULTS WINDOW	Just below total window
TOTAL SCORE WINDOW	Upper left corner
TOTAL WINDOW	Upper left, shows band totals
USER INFO WINDOW	Just below the Call Window
WHOLE SCREEN WINDOW	Used for errors at start; main background

TABLE 5.10: WINDOW NAMES

5.5 Selecting Contest Parameters

There are a number of operating parameters that are set to specific values when you select certain contests with the `CONTEST` command. These parameters are normally set automatically by `TR-LOG` when the `CONTEST` statement in the `LOGCFG.DAT` file is executed. However, if you wish to operate a contest that `TR-LOG` does not normally support, and hence cannot be selected 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 the program work correctly for the unsupported contest.

It is important to understand that the instructions in the `LOGCFG.DAT` file are executed in the order in which `TR-LOG` finds them (*i.e.*, from top to bottom in the file); therefore, if you intend to change one of these parameters, you must do so after the `CONTEST` statement has been executed. Keeping the `CONTEST` statement as the second statement of your `LOGCFG.DAT` file is probably the best way to avoid any problems related to the order in which commands are executed.

For example, to operate a contest that is the same as the ARRL DX contest, but in which CQ countries are used as multipliers, your `LOGCFG.DAT` file might look like [Figure 5.5](#).

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

FIGURE 5.5: OVER-RIDING CONTEST PARAMETERS

If the `DX MULTIPLIER` command were to appear before the `CONTEST` command it would be ignored, since the `CONTEST` command will reset the value of `DX MULTIPLIER` to ARRL DXCC WITH NO USA OR CANADA.

5.5.1 Multiplier Types

There are four different families of multipliers, which operate independently of each other. In other words, each station you work in a contest may fall into any one of four categories, and the decision as to whether the QSO is a new multiplier is determined by the multiplier setting for that category.

[Table 5.11](#) lists the different categories, which are discussed in more detail below.

DOMESTIC MULTIPLIER
DX MULTIPLIER
PREFIX MULTIPLIER
ZONE MULTIPLIER

TABLE 5.11: MULTIPLIER CATEGORIES

DOMESTIC MULTIPLIER

The DOMESTIC MULTIPLIER can take on the following values:

NONE

There are no domestic multipliers.

DOMESTIC FILE

Uses a .DOM domestic multiplier file whose name is specified with the [DOMESTIC FILENAME](#) command.

GRID FIELDS

Two-character grid fields are used as the domestic multiplier.

GRID SQUARES

Four-character grid squares are used as the domestic multiplier.

IOTA

Looks at the syntax of your IOTA designator and attempts to interpret it intelligently.

WYSIWYG

What You See Is What You Get. This selection causes TR-LOG to perform no interpretation. If using this multiplier type you can also specify a domestic multiplier file (using [DOMESTIC FILENAME](#)) to provide a list of needed multipliers, but you can also enter any characters that you receive as an exchange, regardless of whether the characters are contained in the specified .DOM file. This works particularly well for the IARU contest in the common case that you have a partial list of HQ stations but you also need to be able to work HQ stations sending unexpected designators. As usual, ALT-G will cycle through the multiplier displays. WYSIWYG is the default setting for the IARU Championship, which also by default uses the file IARUHQ.DOM as the domestic multiplier file.

DX MULTIPLIER

The DX MULTIPLIER values are self explanatory. They are listed in

Table 5.12.

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
PACC COUNTRIES AND PREFIXES

TABLE 5.12: DX MULTIPLIERS

PREFIX MULTIPLIER

The PREFIX MULTIPLIER values are self explanatory. They are listed in [Table 5.13](#).

NONE
PREFIX
SAC DISTRICTS
SOUTH AMERICAN PREFIXES

TABLE 5.13: PREFIX MULTIPLIERS

ZONE MULTIPLIER

The ZONE MULTIPLIER values are self explanatory. They are listed in [Table 5.14](#).

5.5.2 Domestic Multiplier Files

Included with TR-LOG are many domestic multiplier files. These files have the extension .DOM; they are ASCII files that you can examine with the TYPE

Value	Number of Zones
NONE	0
BRANCH ZONES	99
CQ ZONES	40
ITU ZONES	75
JA PREFECTURES	50

TABLE 5.14: ZONE MULTIPLIERS

command or edit with an ordinary text editor such as EDIT or NOTEPAD. You can also generate your own files for contests that are not currently supported by TR-LOG.

The syntax for the files is simple. Each line contains a command that tells TR-LOG how to assign the correct multiplier value to a received exchange. For example, the file NAQP.DOM contains the lines in Figure 5.6.

```

Al = AL
Ak = AK, ALK, KL7
Ar = AR
Az = AZ, ARI

```

FIGURE 5.6: DOMESTIC MULTIPLIERS

This example creates four domestic multipliers: Al (Alabama), Ak (Alaska), Ar (Arkansas) and Az (Arizona). Domestic multipliers must *never* consist solely of uppercase characters. This ensures that TR-LOG can distinguish between domestic multipliers and DX multipliers. (Domestic multipliers may consist solely of digits.)

As you can see, the format of each line in the file is very simple. Each line that creates a domestic multiplier is of the form:

```
<multiplier> = Abb<1>, Abb<2>, Abb<3>, ... Abb<n>
```

where the various Abb<n> are abbreviations that will be interpreted as meaning that the station is in the multiplier corresponding to <multiplier>.

So, in the example above, if a station sends ALK (and therefore you enter ALK as the received exchange), TR-LOG will know that the station whom you are working is located in Ak (*i.e.*, Alaska).

When a domestic QTH is being located by TR-LOG, it will begin with the name exactly as entered in the Exchange Window, and check to see whether it matches any of the entries on the right hand side of the equals sign. For example, if someone sends you ALA, TR-LOG will look to see whether any of the entries is a precise match for 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 be converted to AL, which matches an entry in the file, and TR-LOG will identify the station as being in Al (Alabama). This process continues, stripping one character at a time from the end of the exchange, as many times as is necessary.

In some QSO parties, many different counties that you may receive count for scoring purposes as a single state multiplier. To support this requirement, TR-LOG supports an *assign* feature in domestic multiplier files.

For example, if you are located in California and operating the CQP, you will use the file CALQSOW6.DOM as your domestic multiplier file. This file contains the line:

```
Vent > Ca = VEN
```

This command tells TR-LOG that any exchange beginning with VEN will be assigned the QTH Vent (which corresponds to Ventura county); but it also tells TR-LOG that Vent is to be treated as Ca (California) for multiplier purposes.

In the domestic multiplier files, any line without an equals sign is ignored, so you can format and place any comments in the file however you wish, so long as they do not contain an equals sign.

If you create a new domestic multiplier file, you will need to tell TR-LOG the name of the file with the **DOMESTIC FILENAME** command. To make sure that TR-LOG actually uses the file, you must also set **DOMESTIC MULTIPLIER** to the value **DOMESTIC FILE**.

One point worth remembering: if you are editing the log after the contest and add a domestic multiplier in the new multiplier column, you need to ensure that it does not consist solely of uppercase characters, or it will be processed as a DX multiplier. However, if the contest you are working has *only* domestic multipliers, then all multipliers are processed as domestic, regardless of their case.

When TR-LOG examines the contents of the Exchange Window to determine whether it specifies a domestic multiplier location, the program will normally put a standard name for the multiplier in both the “exchange received” and the “multiplier” columns of the final log. If you want the log to show the actual entry as it was received, you must set **LITERAL DOMESTIC QTH** to TRUE.

5.5.3 QSO Point Methods

The `QSO POINT METHOD` parameter tells TR-LOG how to calculate QSO points. Most of the methods are described by the name of a contest that uses that particular scoring method. A few values explicitly describe how they operate. The possible values are listed in [Table 5.15](#).

For example, the following command will tell TR-LOG to score the contest at the rate of two points per phone contact and three points per CW contact:

```
QSO POINT METHOD = TWO PHONE THREE CW
```

Similarly, you can also tell TR-LOG to score QSOs separately for domestic and DX contacts on a per-mode basis by using the commands `QSO POINTS DOMESTIC CW`, `QSO POINTS DOMESTIC PHONE`, `QSO POINTS DX CW` and `QSO POINTS DX PHONE`.

5.5.4 Exchanges

There are various types of exchanges that TR-LOG can accept. As usual, the correct one is normally selected when the `CONTEST` command is executed. However, if you need to change the type of exchange, manually, you can use the `EXCHANGE RECEIVED` command to override the default value for the contest that you have selected. The allowable values of the `EXCHANGE RECEIVED` command are listed in [Table 5.16](#).

The value of the `EXCHANGE RECEIVED` parameter controls what TR-LOG looks for when you enter an exchange, and also how that information will be displayed in the log.

The callsign of the station whom you are working is used to determine whether the QSO is a domestic QSO or a DX one. The program maintains a list of countries which are to be considered domestic, which is normally determined by the contest you have selected. However, you may add more countries to this list with the `ADD DOMESTIC COUNTRY` command. This command will also allow you to clear the list and start from an empty list if you wish. See [Appendix A](#) for more information on this command.

5.5.4.1 Exchange Formats

You should find that the input format for the received exchange is quite intuitive and efficient. RS(T)s automatically assume the value 59(9) unless you enter a different value. The received QSO number is assumed to be 1 if you don't enter a different value. Domestic QTHs need only enough characters to uniquely identify the QTH. For example, you can enter Quebec as VE2, PQ,

Name	Comment	Name	Comment
NONE		All Asian	
ARCI		ARI	
ARRL DX		ARRL FD	
ARRL VHF		ARRL VHF SS	ARRL VHF Sweepstakes
ARRL 160		ARRL 10	
Baltic		CQ 160	
CQ M		CQ WPX	
CQ WPX RTTY		CQ WW	
CQ WW RTTY		Croatian	
European Sprint		European VHF	One QSO point per kilometer
FISTS		HA DX	
Helvetia		IARU	
IOTA		JA International DX	
KCJ		Mich QSO Party	
MN QSO Party		NZ Field Day	
Oceania		OK DX	
Region One Field Day		RSGB	
Russian DX		Scandinavian	SAC
Salmon Run		SL Five Point	(SL prefixes are 5 points; others 1 point)
South American WW		Stew Perry	1pt + 1pt per 500 km
Ten Ten		TOEC	
UBA		Ukranian	
WAE		WAG	
WWL	World Wide Locator	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		Ten Points per QSO	

TABLE 5.15: QSO POINT METHODS

CHECK AND CHAPTER OR QTH
CLASS DOMESTIC OR DX QTH
JA LONG PREFECT
KIDS DAY
NAME AND POSSIBLE GRID SQUARE
NAME QTH AND POSSIBLE TEN TEN NUMBER
NAME DOMESTIC OR DX QTH
QSO NUMBER AND NAME
QSO NUMBER DOMESTIC QTH
QSO NUMBER DOMESTIC OR DX QTH
QSO NUMBER NAME CHAPTER AND QTH
QSO NUMBER NAME DOMESTIC OR DX QTH
QSO NUMBER PRECEDENCE CHECK SECTION
RST AGE
RST ALL JA PREFECTURE AND PRECEDENCE
RST AND CONTINENT
RST AND GRID
RST AND OR GRID
RST AND POSTAL CODE
RST DOMESTIC OR DX QTH
RST DOMESTIC QTH
RST DOMESTIC QTH OR QSO NUMBER
RST NAME QTH
RST POSSIBLE DOMESTIC QTH AND POWER
RST POWER
RST PREFECTURE
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 QTH NAME AND FISTS NUMBER OR POWER
RST ZONE
RST ZONE AND POSSIBLE DOMESTIC QTH
RST ZONE OR SOCIETY

TABLE 5.16: VALID EXCHANGE RECEIVED VALUES

Qc, Qu, Que or Quebec, all of which be interpreted as Qc. (This means that you don't have to worry about creating new multipliers if different stations send the same location in different ways.) Domestic multipliers will contain at least one lower case character in them when they appear in the log (as in the "Qc" example above), or they will consist solely of digits, so that they can be distinguished from other multipliers in the event that TR-LOG is re-started.

CHECK AND CHAPTER OR QTH

Enter the check, a space, then the chapter or QTH.

CLASS DOMESTIC OR DX QTH

The exchange must be at least two characters in length. For a domestic QSO, the exchange must contain a space, with the class appearing before the space and the QTH appearing after the space. The QTH must identify a domestic QTH. For a DX QSO, you need enter only the class. In all cases, the class must be either two or three characters in length.

KIDS

Logs verbatim whatever is typed in the Exchange Window.

NAME AND POSSIBLE GRID SQUARE

The entries may be in any order, with spaces between them. Starting at the end of the contents of the Exchange Window and working backwards, the first item found that looks like a grid square will be treated as the grid square; similarly, the first item found that does not look like a grid square will be treated as the name.

NAME QTH AND POSSIBLE TEN TEN NUMBER

There may be two or three entries, separated with spaces. The name must always appear before the QTH, but the optional Ten Ten number may appear anywhere in the exchange. The QTH can only be a single word (*i.e.*, it must have no spaces). If the QSO is with a DX station, 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 (with a space separating it from the name).

QSO NUMBER AND NAME

Enter the QSO number, a space, and the received name.

QSO NUMBER DOMESTIC QTH

There must be at least one character in the exchange. If the exchange has a space to separate the QSO number and QTH, TR-LOG will determine which is which. If there is no space, and the exchange identifies a domestic QTH, the QSO number will be assumed to be one.

QSO NUMBER DOMESTIC OR DX QTH

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

QSO NUMBER NAME CHAPTER AND QTH

Four entries, separated with spaces. The QSO number can be first or last, but name, chapter and QTH must appear in that order in both cases.

QSO NUMBER NAME DOMESTIC OR DX QTH

The length of the exchange must be at least seven characters and must 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. The name should appear before the QTH to ensure that TR-LOG properly parses the exchange, although it will usually parse the exchange correctly even if the QTH appears first. If an exchange element is missing, an error message will be displayed when you try to log the contact. For a DX QSO, you may optionally enter the prefix as the QTH.

You may also enter the following exchanges, which will be interpreted correctly by TR-LOG. 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

TR-LOG allows considerable latitude in how this exchange is entered. Examples that TR-LOG will parse correctly are:

```
1A 67LAX
```

TR-LOG 6.79

```
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. So, in the last example above, the precedence Q will be used even though the precedence is first listed as A. If a callsign is included, it will override the callsign in the Call Window. 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](#) must be TRUE in order for TR-LOG to automatically replace the logged callsign of the station with the call in the Exchange Window.

RST AGE

If you want to use the default RS(T) (*i.e.*, 59(9)), just enter the age. Otherwise, you may 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. The space that separates the RST and the age is optional. The age must always be two digits.

RST ALL JA PREFECTURE AND PRECEDENCE

JA contests sometimes use a single letter to indicate power (the “precedence” letter). The RS(T) is optional. Almost any order may be used to enter the data, but no duplication of fields is permitted. Spaces between the fields are optional. For example, 57923C is interpreted as RST 579, prefecture 23 and power code C.

RST AND CONTINENT

The RS(T) is optional, and the continent must be one of NA, SA, EU, AF, OC or AS.

RST AND POSTAL CODE

The RS(T) is optional. The post code is mandatory.

RST AND GRID

The RS(T) is optional. The Grid Locator (four or six characters) is mandatory.

RST AND OR GRID

The exchange must have at least an RS(T) or a Grid (four or six digit).

It may also have both. If no RST is input, the RST field will be blank (*i.e.*, no value of RST is assumed). The two entries may be in any order, but must be separated by a space. You may enter each field multiple times; the last entry of each type will be used.

RST DOMESTIC OR DX QTH

The RS(T) is optional. The QTH is mandatory only if this is a domestic QSO. The DX QTH will be calculated from the callsign. If this is a domestic QSO, there must be a space between the RST and QTH. The two fields may appear in either order.

RST DOMESTIC QTH

The RS(T) is optional. The QTH is mandatory. There must be a space between the RST and QTH. The two fields may appear in either order.

RST DOMESTIC QTH OR QSO NUMBER

This behaves just like RST DOMESTIC QTH if the QSO is with a domestic station; otherwise, it behaves just like RST QSO NUMBER.

RST NAME QTH

This is normally used only in the General QSO “contest” (*i.e.*, for non-contest QSOs). Spaces must separate all the fields. [Table 5.17](#) lists formats that are parsed correctly.

Entry #1	Entry #2	Entry #3	Meaning
			RS(T) = default, no QTH/name
Name			RS(T) = default, no QTH
Name	QTH		RS(T) = default
Name	QTH	RST	RST as entered
Name	RST		No QTH
Name	RST	QTH	RST as entered
RST			RST as entered, no name/QTH
RST	Name		RST as entered, no QTH
RST	QTH	Name	RST as entered

TABLE 5.17: RST NAME QTH FORMATS

RST POSSIBLE DOMESTIC QTH AND POWER

This exchange was created for the ARCI QRP contest. The power entry can also be used for the ARCI member number. For QSOs with non-members who send their power, be sure to include a W (watts),

an R (decimal point) or an M (milliwatts) in the power field so that the QSO points are calculated correctly.

RST POWER

You may enter just the power, or enter the RST, a space, and then the power. If you enter the RST, you may enter either the entire RST or just the strength digit.

RST PREFECTURE

You may enter just the prefecture number, or enter the RST, a space, and then the prefecture number. If you enter the RST, you may enter either the entire RST or just the strength digit.

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 treated as the QSO number and the default RST is assumed. If the exchange contains a space, the RST is assumed to be the first entry and the QSO number the second. If you enter the RST, you enter either the entire RST or just the strength digit. Cut numbers may be used in the QSO number (*i.e.*, one or more of: A, U, N and T).

RST QSO NUMBER AND DOMESTIC QTH

This works just like the RST QSO NUMBER exchange, except that a domestic QTH is added at the start or the end of the exchange. The domestic QTH must be separated from the other fields by a space. It must also contain at least one non-numeric character.

RST QSO NUMBER AND GRID SQUARE

The grid may be either a four- or six-letter grid. The fields of the exchange must be separated by spaces. If you include an RST, it must be the first field; the grid and the QSO number may be in either order.

RST QSO NUMBER AND POSSIBLE DOMESTIC QTH

This works just like the RST QSO NUMBER exchange, except that an optional domestic QTH may be added at the start or end of the exchange. The domestic QTH must be separated from the other fields by a space. It must also contain at least one non-numeric character.

RST QSO NUMBER AND RANDOM CHARACTERS

This works just like the RST QSO NUMBER exchange, except that a five-character code group is added at the start or the end of the

exchange. The code group must be separated from the other fields by a space. It must also contain at least one non-numeric character.

RST QSO NUMBER OR DOMESTIC QTH

The valid formats are listed in [Table 5.18](#).

Entry #1	Entry #2	Meaning
QSO#		RST = default; a QSO# contains only digits
QTH		RST = default; a QTH contains at least one letter
RST	QSO#	RST and QSO#
RST	QTH	RST and QTH

TABLE 5.18: RST QSO NUMBER OR DOMESTIC QTH FORMATS

RST QTH

This format allows you to enter an optional RST and up to 22 characters of QTH information, which may include spaces. The RST must appear either at the start or at the end of the exchange.

RST ZONE

You may enter the zone only, or enter the RST, a space, and then the zone. If you enter the RST, you may enter either the entire RST or just the strength digit. If you are on CW, you may enter the zone first, a space, and then a three-digit RST. This allows you to add a non-599 RST to the default zone.

RST ZONE AND POSSIBLE DOMESTIC QTH

This works just like the RST ZONE exchange, except that an optional domestic QTH may be added at the start or the end of the exchange. The domestic QTH must be separated from the other fields by a space. It must also contain at least one non-numeric character.

RST ZONE OR SOCIETY

This allows the name of an ITU member society to be entered instead of a zone. The society multipliers are counted as domestic multipliers. If you enter the RST, you may enter either the entire RST or just the strength digit.

5.6 Initial Exchanges

In many situations, it is possible for TR-LOG to know all or part of the exchange based strictly on the callsign of the station, before the exchange is

ever received from the other station. When this occurs, the program will automatically insert the known information into the Exchange Window. This information can come from one of several sources:

1. The CQ or ITU zone, based on information in the .CTY country files.
2. From the TRMASTER database, which may contain name, QTH, check, section, grid and other information.
3. Previous exchanges saved in the Exchange Memory from a QSO with the station earlier in the contest.
4. An Initial Exchange file, which pre-loads the Exchange Memory with initial values when TR-LOG first starts.

For the first two possibilities (zone or TRMASTER information), the **INITIAL EXCHANGE** parameter determines what information will be used for the initial exchange. Normally, the value of this parameter is automatically selected by your choice of contest. However, if you are modifying the program's behaviour for use in an otherwise unsupported contest, you might need to change the value of **INITIAL EXCHANGE**, as described in [Appendix A](#).

If, during the contest, an inappropriate exchange is inserted by TR-LOG, and if you have set **INITIAL EXCHANGE OVERWRITE** to FALSE, then tapping any key will cause the entire contents of the Exchange Window to be erased, thus saving you from having to overwrite or change the incorrect 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 take precedence over the first two sources in the enumerated list above. So, for example, if the TRMASTER database contains an entry stating that the correct name for N6TR is TREE, the initial exchange the first time you work N6TR will be TREE. However, if he instead gives you the name LARRY, then LARRY will be automatically entered into the Exchange Window the next time that you work him in this contest.

Information that may be stored from earlier QSOs into the Exchange Memory is: age, zone, ITU society, power, name, field day class and domestic QTH (including grid squares). **EXCHANGE MEMORY ENABLE** must be TRUE for this feature to work (this is the default value unless you are operating the Internet Sprint contest).

You can create a file that contains definitions of initial exchanges. This file, the Initial Exchange file, must have the name **INITIAL.EX**. Each line in

the file should contain the callsign followed by one or more spaces and then the initial exchange information.

If the program finds the INITIAL.EX file in the working directory, it will load the calls into the partial call list and Exchange Memory. Up to 1000 unique initial exchanges may be specified in the Initial Exchange file, but there is no limit to the number of calls that it may contain.

A sample from an Initial Exchange file that might be useful for the Sprint contest is shown in Figure 5.7.

```
N6TR TREE OR
K6LL DAVE AZ
N2IC STEVE NM
KØKR BOB CO
```

FIGURE 5.7: INITIAL EXCHANGE FILE

When an initial exchange is placed into the Exchange Window, you can use the [INITIAL EXCHANGE CURSOR POS](#) command to control whether the cursor is at the start or the end of the exchange. TR-LOG places an extra space at the beginning of the exchange, so that, if you set [INITIAL EXCHANGE CURSOR POS](#) to AT START, once you enter a value at the beginning of the exchange then you can log the QSO merely by hitting <ENTER>, without having to remember to insert an extra space first.

5.7 Reminders

You can program messages that TR-LOG will display on the screen at a certain time and date. For example, to program a message to remind you when sunrise is happening in Japan on the 25th of November, 2000, you would put the following lines into your LOGCFG.DAT file:

```
REMINDER = 2142 ON 25-NOV-00 ALARM
Sunrise is happening now in Japan.
```

The word ALARM is optional. If it is present, the same alarm used for the ALT-A function is used. If the word ALARM is not present, a simple beep will sound when the message is displayed. The time at which the reminder is displayed is determined by the combination of the clock on the computer

and the **HOURLY OFFSET** value; this is true regardless of whether the **RE-MINDER** command appears before or after the **HOURLY OFFSET** command in the configuration file.

Instead of using the actual date, you may substitute the name of the day of the week. So, for example, your LOGCFG.DAT file could conceivably contain:

```
REMINDER = 2355 ON FRIDAY
Five minutes to go before the contest starts
```

Using the day **ALL** will cause your reminder to appear every day at the same time. You can add reminders during the contest without stopping the program by using the **ALT-O** function, which also allows you to use the special day name **TODAY**. Reminders added with the **ALT-O** command will be added to your LOGCFG.DAT file. **TR-LOG** can store up to 100 separate reminders.

A different type of reminder is controlled with the **TOTAL SCORE MESSAGE** command. Using this command, you can define up to ten messages that will be printed when you achieve a certain score. For example, the command:

```
TOTAL SCORE MESSAGE = 1000000
You just broke one million!
```

will cause the message **You just broke one million!** to be displayed for two seconds at the appropriate time. Also, a congratulatory fanfare will sound.

Chapter 6

Operation

This chapter explains many of the detailed nuances of operating TR-LOG efficiently. There is a lot of material in this chapter, and, although much of this material is likely to be unimportant for any individual operator, it is worthwhile to become familiar at least at a superficial level with what the program can do. If you wish to use the power of TR-LOG to the greatest extent possible in your situation, you should study with some care those sections that pertain to your particular circumstance.

Not all possible commands are discussed in this chapter (or, indeed, in the main body of this manual). To see a complete listing of all the commands that TR-LOG understands, at some point you should work your way carefully through all the entries in [Appendix A](#)¹.

6.1 Basic Operation

When TR-LOG starts, it places you in CQ Mode. Normally, F1 and F2 are configured to send slightly different CQ messages. If the Call Window is empty, you can send the F1 CQ message simply by pressing <ENTER>. When a station calls you, type the call into the Call Window and press <ENTER>. This causes the Exchange Window to appear; you type the received exchange into this window and press <ENTER>. If the exchange and callsign make sense to TR-LOG within the context of the chosen contest, the program will log the contact. In contests where the signal report is part of the exchange, you do not need to include the 599 or 59, as TR-LOG will assume this value appropriate for the mode unless you enter some other value.

As you type a callsign into the Call Window, and if [PARTIAL CALL](#)

¹The author makes a point of re-reading [Appendix A](#) once a year, to check that his configuration files are still up-to-date

ENABLE is TRUE, you will be shown a list of callsigns that start with the characters that you have entered so far. You can select from this list (so that you do not have to type the rest of the call if you do not wish to) by using the **POSSIBLE CALL LEFT KEY** to move toward the left in the list, the **POSSIBLE CALL RIGHT KEY** to move toward the right, and the **POSSIBLE CALL ACCEPT KEY** to perform the selection. Calls in the list that are dupes will be highlighted. (You may change the colours used for the highlighting; see [section 5.4](#)).

Normally, you will probably instead type the entire call and then press <ENTER> to begin the QSO. After you have pressed <ENTER>, TR-LOG will display a list of **POSSIBLE CALLS**. These are calls selected from the name database and from the dupesheet that differ from the one that you are working by only one character.

On CW, you can adjust the code speed with the ALT-S command, or with the <PAGE-UP> and <PAGE-DOWN> keys. Pressing one of these latter keys will either increment (<PAGE-UP>) or decrement (<PAGE-DOWN>) the speed by the value of the **CW SPEED INCREMENT** parameter (default value is 3 words per minute). You can also adjust the speed of cw on the inactive radio with the CTRL-<PAGE-UP> and CTRL-<PAGE-DOWN> keys.

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

You can move between the Call Window and the Exchange Window by using any of the following keys: the up or down arrows on the cursor pad; <TAB>; <PAGE-UP> or <PAGE-DOWN>; or the control key cursor movement commands listed in [Table 6.1](#).

When making a QSO, pressing the <ESC> key performs the following function:

- If a CW message is being sent by the keyer, it will be terminated.
- If no CW message is being sent, and there is an entry in the window in which the cursor is located, the entry for that window will be cleared.
- If no CW is being sent, the current window is empty, and you are in S&P Mode, you will return to CQ Mode.
- If no CW is being sent, the current window is empty, and you are in CQ Mode, all QSO information will be erased.

You should find that pressing <ESC> becomes a natural way to back up one step while you are making a QSO. If you are in the process of executing

Key	Action
CTRL-A	Back one word
CTRL-S	Back one character
CTRL-D	Forward one character
CTRL-F	Forward one word
CTRL-X	Down one line
CTRL-C	Down one page
CTRL-E	Up one line (not available if using the multi port)
CTRL-R	Recall last entry deleted with <ESC>
CTRL-G	Delete character
CTRL-W	Clear window (Call Window or Exchange Window)
CTRL-Y	Clear line

TABLE 6.1: CURSOR MOVEMENT KEYS

any command, pressing <ESC> 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 <ESC> by mistake, you can recall the entry by pressing CTRL-R.

To enter S&P Mode, press <TAB>. The Exchange Window will be green to indicate visually that you are in S&P Mode. (You can change this color with the [EXCHANGE WINDOW S&P BACKGROUND](#) command.)

In S&P Mode, press F1 or <ENTER> to call a station. F1 will send DE and your call (assuming that [DE ENABLE](#) is TRUE); <ENTER> performs a dupecheck before sending DE and your call. If you press F1 and need to stop sending before the message has completed, press F1 again (or, as usual, <ESC>). Pressing F1 again a few seconds after you pressed it and the original message was sent will cause TR-LOG to send your call again without the DE in front of it. This makes it easy to send your call twice if the station did not come back to your first call.

The F2 key is used to send the exchange. The first time the exchange is sent during a QSO, TR-LOG sends the [S&P EXCHANGE](#). Pressing the F2 key again will cause TR-LOG to send the [REPEAT S&P EXCHANGE](#). If you have not sent the exchange before you press <ENTER> to log the contact, it will be sent automatically. Normally, then, you cause the exchange to be sent and simultaneously log the QSO simply by pressing <ENTER>.

If the exchange includes a serial number and you press F2 when there are

no entries in the Call Window or the Exchange Window, and if [AUTO QSO NUMBER DECREMENT](#) is TRUE, then TR-LOG will assume you are providing a fill to the station you just logged. This causes TR-LOG to decrement the current QSO number by one, so that it matches the number that you sent most recently.

The <ESC> key causes you to return from S&P Mode to CQ Mode, and also clears the Call Window. You can also use SHIFT-TAB to perform the same function, but without erasing the contents of the Call Window.

Some contests require that you log a serial number from the other station. When in S&P Mode, some operators like to fill the exchange information with the expected number before the QSO takes place (for example, if you are listening to the other station work through a pile-up). If you are in a pile-up and the other station doesn't come back to you, it can be annoying to keep incrementing the number that you expect to receive. You can increment this number automatically by pressing the ALT-I (for "increment serial number") key.

There is a shortcut that allows you to enter S&P Mode and to instantly send your call. This action is performed by pressing the space bar when the Call Window is empty. This feature was developed with the Sprint contests in mind, but is useful any time you want to transmit your call quickly when you come across a station and you are in the wrong mode.

To respond to a tail-ender, you can use the [TAIL END KEY](#). When you are finished with your current QSO, hit the [TAIL END KEY](#), which causes the [TAIL END MESSAGE](#) (normally an R) to be sent, after which you can start to enter the call of the tailender. As you enter the call, it will be transmitted. Pressing <ENTER> will complete sending the call and also send the exchange. The previous QSO will now be logged and the new one set up correctly. The default [TAIL END KEY](#) is].

When entering a callsign, you can use ? as a character. Any instances of ? must be changed to a legal callsign character before TR-LOG will let you log the contact.

There are a number of commands that can be executed by pressing the Alt or Control key in combination with another key. A list of many of these commands can be viewed by pressing ALT-H (think of this as "Alt-Help"). When the ALT-H is being displayed, a detailed message describing any of the displayed commands can then be accessed by pressing the key for that command. It is strongly recommended that you become at least somewhat familiar with the detailed messages for all of these commands before using the program in a contest. A list of these commands is in [Table 6.2](#).

Character	Purpose	Character	Purpose	Character	Purpose
ALT-A	Alarm	ALT-P	Program message	CTRL-B	Communicate with packet port
ALT-B	Band up	ALT-Q	Auto-CQ	CTRL-J	Edit LOGCFG.DAT value
ALT-C	Auto-CQ re-sume	ALT-R	Toggle rigs	CTRL-K	Clear dupesheet
ALT-D	Dupe check	ALT-S	CW speed	CTRL-L	View LOG.DAT
ALT-E	Edit	ALT-T	Date/time	CTRL-N	Note
ALT-F	Save to floppy	ALT-U	Flush log to disk	CTRL-O	Missing mults report
ALT-G	Swap mult view	ALT-V	Band down	CTRL-P	Redo possible calls
ALT-H	Help	ALT-W	Reset wake-up	CTRL-Q	QTC functions
ALT-I	Increment number	ALT-X	Exit	CTRL-R	Recall last entry
ALT-J	Multiplier bell	ALT-Y	Delete QSO	CTRL-U	View packet spots
ALT-K	Kill CW	ALT-Z	Initial exchange	CTRL-Y	Refresh bandmap
ALT-L	Search log	ALT-=	Toggle sidetone	CTRL--	Dueling CQs
ALT-M	Change mode	ALT--	Toggle autotend	CTRL-\	QSO with no CW
ALT-N	Transmit frequency	ALT-<NUMBER>	Increment time	<SPACE>	Dupecheck
ALT-O	Reminder	"	Send multi message	'	Send spot to packet

TABLE 6.2: HELP MENU

The detailed messages that TR-LOG provides online is duplicated below, almost verbatim (excepting only that a few spelling mistakes and some incorrect information have been corrected).

alt-A

The ALT-A has two functions. If you have entered some characters in the call window and have specified a **SCP FILENAME** (e.g., **MASTER.DTA**) then a manual super check partial will be performed. Otherwise, this command will allow you to control a built in alarm clock.

When setting the alarm, you will be asked to enter the time you want the alarm to sound. This time will be displayed in the lower right corner of the screen. To stop or clear the alarm, press ALT-A again. It will signal you every few minutes until you turn it off.

When performing a super check partial, the results are shown in the editable log window. Press ALT-A again to clear the results. A minimum of 2 characters need to be entered and you can use question marks to match any character.

alt-B

The ALT-B command will move you up one band. If the **MULTIPLE BANDS** flag has been set to FALSE (as it would automatically in a single band contest), and you have made at least one QSO, nothing will happen.

alt-C

The ALT-C command will continue the last auto CQ that was set up using the ALT-Q command. Remember the PageUp and PageDown keys are redefined while you are auto CQing. Pressing them will change the delay time between CQs.

alt-D

The ALT-D command will perform a dupecheck on the inactive radio's band and mode. You will be asked for the callsign of the station you want to have checked. The QSO and multiplier status windows will be updated with the information for that station. If you decide to work the station, pressing the space bar will put you in the Search and Pounce mode with the proper band and mode set. After the QSO is complete, you will be returned to the CQ mode with your original band and mode set.

This command is even more powerful if you are using the **TWO RADIO MODE** on CW, or on SSB with DVP or DVK. In this case, pressing the space bar will also call the station as if you pressed F1, wait for the CW to stop, and then call CQ on the original radio. Pressing F2 or RETURN will interrupt this CQ and send the exchange on the second radio. Finally a CQ will start back on the first radio automatically.

alt-E

The ALT-E command will allow you to edit the editable log which contains the last five QSOs you have made. The <TAB> and SHIFT-TAB keys can be used to move the highlighted cursor field forward or backward. This is a low level edit, so if you make changes to the QTH, you need to make the changes to the multiplier field. This editor will only allow you to overwrite data so the other columns will not be misaligned by adding characters.

When you are done editing the log, press <ESC>. You will then be asked if you want to save the changes you have made, or go back to what you had before executing the ALT-E command. **CONFIRM EDIT CHANGES** can be set FALSE to disable being asked if you want to save the changes.

You can also activate the editor if your cursor is in a blank call window by pressing the up arrow.

alt-F

The ALT-F command will force a save of the LOG.DAT file to the floppy that was named with a **FLOPPY FILE SAVE NAME** command in LOGCFG.DAT. If the name was not given, then the data will be saved to LOGBACK.DAT in the same directory as LOG.DAT. You can make these saves happen automatically by using the **FLOPPY FILE SAVE FREQUENCY** command in LOGCFG.DAT

alt-G

If there is more than one type of remaining multiplier display, the ALT-G command will switch between them. For example, in the CQ WW contest, the ALT-G command will switch between the remaining country display and the remaining zone list. Please note that there is not a remaining prefix list.

alt-H

The ALT-H command enters the online help function that you are now using.

alt-I

The ALT-I command will increment a (received) numeric value in the exchange window by one. This is handy when you are searching and pouncing and didn't bust through the pileup.

alt-J

The ALT-J command will toggle the enable for a multiplier bell. You can tell it is enabled when the bell rings when pressing ALT-J.

alt-K

The ALT-K command will disable the sending of CW immediately. Sending will be restored when either another ALT-K command is issued, or when a CW function key memory is pressed. While sending is disabled, the code speed window will show **NO CW!!**. This mode is very handy when having to take over a QSO by sending manually.

If you are using the DVP, the ALT-K command will enable or disable DVP sending.

alt-L

The ALT-L command will allow you to look through your LOG.DAT file for all occurrences of a search string. This can be used to find a previous QSO and prove to someone that they really are a dupe. If you are looking for N6AR, it will help to put a space after the N6AR so you won't also get entries that start with N6AR (*e.g.*, N6ARA). The question mark will match any character. Searches are case insensitive. It can be used anywhere except as the first character of the search string. If there is something in the call window, it will be used as a default which you can simply type over if you don't want to use it.

alt-M

The ALT-M command will cycle through the modes available in the contest that you are working. If the **MULTIPLE MODES ENABLED** flag has been set to FALSE (as it would in a single mode contest), and you have made at least one QSO, nothing will happen.

alt-N

The ALT-N command will put your Kenwood or Yaesu radio into split mode and set the transmit VFO to the frequency entered. You can enter just the last three digits of the frequency in most cases. You can also activate this function with the single dash key, allowing you to enter the frequency by using only the numeric keypad (in NUM LOCK mode).

alt-O

The ALT-O command allows you to add reminders on line without having to stop the program and edit the LOGCFG.DAT file. Added reminders will automatically be written to the LOGCFG.DAT file so they will be remembered in the case of a power failure. Control characters can be entered by pressing CTRL-P and then the control character.

alt-P

The ALT-P command will allow you to change the contents of a function key memory or other QSO message. Keep in mind that there are two sets of function key memories, those for CQ mode and those for the exchange/search and pounce mode. Follow the prompts to edit other messages such as CQ Exchange. In all cases, you will be shown the existing message which you can either edit or overwrite. <ESC> will exit you from the ALT-P function with no changes made to the message. Your new message will be appended to your LOGCFG.DAT file so it will be there if you restart the program.

alt-Q

The ALT-Q command will allow you to set up a given memory to be repeated at selected intervals. This is handy for making a CQ repeat automatically. When any key is pressed, the CQ will stop immediately. If the key is a valid callsign key, it will be entered into the call window. To resume the last auto CQ setup, use the ALT-C command. While you are auto CQing, you can use the PageUp and PageDown keys to change the delay time between messages in half second steps.

alt-R

The ALT-R command will toggle between the two radios you have set up. The mode and band will be updated to the proper values and the radio name display in the lower left corner of the screen will be updated.

If you are in CW mode, the code speed will be remembered for each radio separately.

alt-S

The ALT-S command will allow you to enter the desired code speed. You can also change the code speed by using the PageUp and PageDown keys.

If you are using two radios, the code speed is set separately for each radio.

alt-T

The ALT-T command will allow you to set the time and date. The time will be set with the seconds at zero.

If you are using the multi network, you will be asked if you would like to send the date and time to all of the computers on the network.

alt-U

The ALT-U command will move the contents of the editable log into the LOG.DAT file. This is normally done after the contest is over so all your contacts are in the LOG.DAT file. The LOG.TMP file will be erased. This command is also useful when QTCs are enabled as the contacts in the editable log window must be moved into the LOG.DAT file before they can be sent as QTCs.

alt-V

The ALT-V command will move you down one band. If the [MULTIPLE BANDS ENABLED](#) has been set to FALSE (as it would for a single band contest), nothing will happen.

alt-W

The ALT-W command will allow you to reset the wake up counter to zero. You would do this when the wake up timeout alarm has sounded and you want it to stop as if you had made another QSO.

alt-X

The ALT-X command will allow you to exit the program. You will be asked if you really want to exit in case you hit ALT-X by mistake.

alt-Y

The ALT-Y command will delete the last QSO you have made that is displayed on the bottom of the editable log window. This contact can be restored by pressing ALT-Y again before another contact is made.

alt-Z

The ALT-Z command will recalculate the initial exchange entry based upon the callsign entered in the call window. This is handy if you come back to a station, then change his prefix, and want to have the program tell you his zone. It can also be useful if you have entered any ? characters in the Call Window.

alt==

The ALT== does two different things depending on the active mode.

If you are in the CW mode, this command will toggle the sidetone on or off. If the sidetone was set to zero in `LOGCFG.DAT`, it will be turned on at 700 hertz.

If you are in the SSB mode and the DVP is enabled, you will be shown a list of the backcopy files you have made and can review or delete them.

alt--

The ALT-- (Alt Dash) command will toggle the Auto Send feature if the `AUTO SEND CHARACTER COUNT` has been set to something greater than zero. When enabled, an arrow will appear above the call window showing you the cursor position where CW will be automatically started when entering a callsign. When the Auto Send feature is disabled, this arrow will disappear.

alt-<number>

Pressing Alt and a number key (*e.g.*, ALT-1) will increment the time by that number of minutes. Pressing ALT-0 increments time by 10 minutes. This function is quite handy if you are entering QSOs manually from another log. You would set the time and date to the first QSO of the log and then use this function to increment the time as needed for each QSO. This feature must be enabled by putting the following command in your `LOGCFG.DAT` file:

`INCREMENT TIME ENABLE = TRUE.`

This function should not be used if you have set the `HOUR OFFSET` to a non zero value as it will affect your system clock.

ctrl-B

The CTRL-B command allows you to access a 13 line window for talking to a packet TNC or some other TNC-like system such as a computer running Wintelnet. Typically you would access this window to log onto a packet cluster and then exit from it to operate a contest. DX Spots that are new multipliers will be shown to you. You can also type `sh/dx` while the packet window is up and then exit before the data shows up, and the spot information will be loaded into the spot memory that you can access with the CTRL-U command.

Packet spots also appear in the bandmap as they are received and in response to the `sh/dx` command.

While the packet window is active, you can press F1 to call CQ. This is handy if you are talking to a friend on packet and want to continue to call CQ in the contest. If someone answers you, press ESCAPE to exit the window and then work the station. When you press CTRL-B after the QSO, the window will show any data that you missed while you were busy.

You need the **PACKET PORT** command in LOGCFG.DAT to enable packet operations.

ctrl-J

The CTRL-J command can be used to change many of the LOGCFG.DAT commands while the program is running. To see which ones can be accessed, simply try running the command.

You can select which parameter you want to modify using the cursor keys. For each entry, you are shown the LOGCFG.DAT name for the parameter, the current value of the parameter, and a short description explaining what the result of the current value is. You can change the value by pressing RETURN. For most of the parameters, this will toggle the value to the next value. For others, you will have to enter a new value for the parameter.

The ALT-W command may be used to write the selected entry to the LOGCFG.DAT file. This will make the change permanent even if the program is restarted. The ALT-G command saves to LOGCFG.DAT all the changes that you have made to the configuration parameters. The ALT-N command can be used to propagate changes around a multi network.

ctrl-K

The CTRL-K command will clear the dupesheet. This is used for those contests where you can work people again on the second day of the contest. Use this command after the first day so you can work people again without the program flagging them as dupes.

ctrl-L

The CTRL-L command will allow you to browse through the LOG.DAT file. The PageUp, PageDown, Home and End keys can be used to move around. No editing of the LOG.DAT is supported. To exit, simply press <ESC>.

ctrl-N

The CTRL-N command will allow you to input a single line note to

the log. The note will appear with a semi-colon in front of it which makes sure the line is not counted as a QSO. After the contest, `POST` can create a file with all the notes you have made. Any notes in your log will not appear in your final band/mode log as generated by `POST`.

ctrl-O

The `CTRL-O` command can be used when you have any kind of country DX multiplier. This command will display a list of countries that you have worked on at least 4 bands, but not all 6 bands. It will show you the bands with QSOs indicated with asterisks. This display is quite useful to make sure you are not missing any of the active countries on easy bands.

ctrl-P

The `CTRL-P` command will show you all the information known for the call presently in the call window, including possible calls (if enabled).

ctrl-Q

When using QTCs, the `CTRL-Q` command is used to either send or receive QTCs with the station you are currently working.

ctrl-R

If you have erased a callsign using the `ESCAPE` key, you can recall the callsign with the `CTRL-R` command. This can also be used for erased exchanges.

ctrl-U

The `CTRL-U` command allows you to review the last 10 packet spots. The spots were either shown to you as new multipliers or they can come from a `sh/dx` command that was executed using the packet window (`CTRL-B`). To load the spot memory using a `sh/dx` command, you must exit the packet window before the data comes back from the cluster.

You can move a cursor to any of the listed stations and press `<ENTER>` to set up the program and your radio to work that station.

ctrl-Y

When using the band map, the `CTRL-Y` command will refresh the time for whatever entry is currently blinking.

ctrl--

If you are using two radios, the `CTRL--` function will send the message programmed in CQ memory `Alt-F1` alternately on each radio. This is

typically a short CQ message so you can CQ on two bands at once. If you get a response, simply type in the call as you normally would. The CQ on the other band will finish and then the station will be called on the correct band. While the station is sending you the exchange, another CQ will be sent on the other band. This technique allows you to be transmitting 100 percent of the time! It is best used with short CQ messages (*e.g.* TEST N6TR TEST).

'

The ' key will send a spot to packet when a valid call is in the Call Window, you have the packet port set up and the program can read the frequency from your radio. If the Call Window is empty, it sends the most recent call in the editable log. Since some people find themselves hitting the ' key accidentally on some keyboards, you might want to set [PACKET SPOT EDIT ENABLE](#) to TRUE to make sure that you do not inadvertently transmit spots.

If you set [ASK FOR FREQUENCIES](#) to TRUE, then you can use ' to send packet spots even if TR-LOG is unable to read the frequency from the rig.

"

If you are using TR-LOG in the multi mode, you can send messages to the other computers on the network. Use the " key to open a window and enter who you want the message to go to, a space, and then the message. You can address a message to the band you want the message to go to (160, 80, 75, 40, 20, 15 or 10) or to ALL of the computers. If you do not specify a destination band, TR-LOG will assume that you want to send the message to all the other computers on the network. The message will be displayed (usually within a few seconds) on the proper computers with an audible alert.

<Space>

The most common use for the space bar is to check if a callsign entered in the call window is a dupe or not. This is not a necessary step in normal operation because the program does check the call itself when you press <ENTER>, but if you are interested in finding out it is a dupe before pressing <ENTER> (and possibly sending CW), then <SPACE> is an easy way to do this. You will also be shown the station's name, if known.

If the Call Window is empty and there is no dupe information on the screen in the upper right corner, then pressing <SPACE> is a quick way

to enter S&P Mode and send your callsign.

When you use the ALT-D command to check for a dupe on the inactive radio or a packet spot comes up, there will be station information shown in the upper right hand corner of the screen. If this information is present, pressing <SPACE> will allow you to work that station.

There are a couple of additional useful keys that are not listed on the ALT-H menu:

ctrl-<Enter>

This logs a QSO as usual, except that no CW is sent. *This is an extremely useful command*, especially in “emergency” situations when you have resorted to a paddle and have already completed the QSO by hand, but TR-LOG does not know this. If you are operating with two radios and press the CTRL-<ENTER> then no CW is transmitted on the radio on which the just-completed QSO occurred, but a CQ is transmitted on the inactive radio.

- Ⓞ If you press the @ key in the middle of a QSO, and if you have **CALLSIGN UPDATE ENABLE** = TRUE, then TR-LOG will look for an updated call in the Exchange Window and it will send that call instead of the contents of the Call Window. This feature also updates the internal **CallsignICameBackTo** value, so the new call won't be sent automatically with the **QSL MESSAGE**.

When using domestic multipliers and mult by band or mult by mode, you can view the information for a multiplier by entering the first few characters of the multiplier in the Call Window. The multiplier information window will automatically display the information for that multiplier. To obtain multiplier information for the other types of multipliers (*i.e.*, country, prefix or zone), enter the call in the Call Window and perform a dupecheck (by pressing <SPACE>).

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 simultaneously.

You can activate the ALT-E editor by pressing the up-arrow key if your cursor is in an empty Call Window. Similarly, pressing the down-arrow key when on the bottom line of the editable log causes you to leave the log (as does pressing <ESC> anywhere in the editable log). If **CONFIRM EDIT CHANGES** is TRUE, then you will be asked to confirm the changes you have made as you leave the editable log.

An external footswitch may be connected to one of your parallel ports. The footswitch can be used for various functions, including acting like the <ENTER> key. Refer to [section 6.17](#) for more information on programming the footswitch.

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

6.2 Two Radio Mode

When the [TWO RADIO MODE](#) flag is TRUE, TR-LOG is in 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 (this is usually called “SO2R” operation: Single Operator, 2 Radios). With practice, this process can become easy enough to use even during quite high-rate runs. Switching between the two rigs is simple: just hit ALT-R and the inactive rig immediately becomes the active rig, and vice versa.

Even without two radio mode enabled, the ALT-D command will perform a dupecheck on the inactive rig 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 press <SPACE>, which will swap the inactive and active rigs, enter the station’s callsign in the Call Window, and put you in S&P Mode. After you log the contact, the rigs are swapped back and you are returned to CQ Mode.

When you use two radios, you will notice that the screen includes the frequency of the inactive radio; the frequency of the active radio is highlighted, and the frequency of the inactive radio is dimmed.

The bandmap works well with two radios. Call, band and mult-needed information is displayed as you tune the inactive rig. Calls from the bandmap may also be loaded into the ALT-D buffer (if [ALT-D BUFFER ENABLE](#) is TRUE) so that you can quickly perform a dupecheck on the inactive radio (you can overwrite this by typing a new call).

The [AUTO S&P ENABLE SENSITIVITY](#) value affects the interaction between the bandmap and running on the inactive rig. Tree recommends setting this to a value of 100 for optimal results.

If [TUNE ALT-D ENABLE](#) is TRUE, then tuning the inactive radio across a non-dupe entry in the bandmap will cause the bandmap call to be entered, so that it can be worked with the ALT-D command.

When you enable **TWO RADIO MODE**, it takes this process even further. Now when you press **<SPACE>**, in addition to the above sequence, **TR-LOG** will call the station for you just as if you had pressed the F1 key in S&P Mode. As soon as the call is complete, a CQ stored in CQ MEMORY ALT-F3 will be launched on the run radio.²

If the station doesn't come back to you, press **<ESC>** to abort the two radio process. You are then ready to respond to a station answering your CQ. You can call the station on the inactive rig later by pressing **<SPACE>** again. If, after calling the station, he needs 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 **<ENTER>** 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 confirms that the contact is good, press **<ENTER>** to log the contact and start a CQ on the run radio.

If someone has answered a run-radio CQ while you have been working the second-radio station, then, if you have put the call of the station that called you into the Call Window, pressing **<ENTER>** will log the second-radio QSO *and* automatically reply to the station on the run radio. If there is no call in the Call Window, pressing **<ENTER>** will just log the QSO and cause the run radio to transmit a CQ.

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 **CTRL-<PAGE-UP>** and **CTRL-<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 **CTRL-A** (send the CW on the inactive radio). Remember, you can put control characters in a CW message while using **ALT-P**

²This function does not work correctly if **SPRINT QSY RULE** is set to TRUE. This should not be a problem, since one would not normally set both **SPRINT QSY RULE** and **TWO RADIO MODE** simultaneously to TRUE..

to program a message by using CTRL-P followed by the control character you wish to enter (see [section 5.2](#)).

Another interesting two radio trick is to alternate CQs on each radio until someone comes back (“duelling CQs”). This can be done with the CTRL--command. The CQ message used will be the one in CQ MEMORY ALT-F1. As soon as you start to enter a call, the CQ will stop on the other radio, and the program will set itself up for you to respond to the station that is calling you. 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 if [TWO RADIO MODE](#) is FALSE.

Sometimes when you are making a QSO on the second radio, a station will answer your CQ that is sent on the first radio. Normally at this point your cursor is in the Exchange Window (for the exchange of the QSO that you are making on the second rig). If you enter the call of the station that answered your CQ into this window, preceded by a / character (*e.g.*, /G4AMJ), then as soon as you press <ENTER>, as well as logging the second-radio QSO, instead of calling another CQ on the first rig, the program will put the call of the station that called you into the Call Window. You can then immediately go back to that station by hitting <ENTER> again (in other words, you press <ENTER> twice to perform both functions). A callsign that is in the Exchange Window and is preceded by a slash is known as an “OnDeckCall”.

Before you try to operate with two rigs in a contest it is imperative that you spend a reasonable amount of time experimenting with all the various scenarios that may occur, to make sure that you have TR-LOG configured in a way that you find reasonably natural. You want to be able to operate two-radio mode correctly no matter what the other station(s) might do, even when you are tired and/or frustrated. Otherwise you are likely to suffer the twin embarrassment of both losing a QSO and sounding like a lid.

6.3 Entering a Hand Log

If you wish to use TR-LOG to enter a hand-written log after a contest, there are several features that you can use to make this task easier:

1. Setting [AUTO TIME INCREMENT](#) to the value N will automatically increment the time by one minute after N QSOs.
2. Setting [AUTO DUPE ENABLE CQ](#) to FALSE will allow you to log duplicate contacts. The program will beep to alert you that you have worked the station before. This allows you to mark it in your written

log as a dupe if you wish. These contacts will be flagged as dupes when you execute the `dupecheck` command in `POST`.

3. Setting `INCREMENT TIME ENABLE` to `TRUE` will allow you to increment time easily by 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 then combine these files into a single `LOG.DAT` file by using the `POST` append procedure, after which you can process it like any other log file.

Another useful feature is the `BEEP EVERY TEN QSOS` flag. When `TRUE`, the program will generate a short beep after every tenth QSO. This makes it easier to detect when you have unintentionally omitted a contact.

6.4 Country List Changes

`TR-LOG` has adopted the CT version 9 `CTY.DAT` file for carrying country information. This file contains more information than the old `.CTY` files that CT used prior to version 9. It includes the information from all three of the earlier `.CTY` files, plus latitude and longitude information that can be used for calculating beam headings and sunrise/sunset times. `TR-LOG` can accommodate up to 500 countries in the `CTY.DAT` file.

The `CTY.DAT` file is a plain ASCII file that may be edited with an ordinary text editor such as `NOTEPAD` or `emacs` in order to add new countries or to modify the prefixes assigned to the various countries. You may also download updated copies from the Internet. For example, there is usually a current version at <ftp://jzap.com/pub/ct-files/cty.zip>.

The `CTY.DAT` file must be located in either your current working directory or the same directory as the `TR-LOG` program file. If you want to use a specific `CTY.DAT` file for a certain contest, place it in the working directory for that contest; this will cause `TR-LOG` to log that version of the file instead of the general purpose copy in the program directory.

One addition to the standard CT format is that at the end of the file you may indicate the countries you wish `TR-LOG` to display 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 of remaining countries, add something like [Figure 6.1](#) to the end of your `CTY.DAT` 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
```

FIGURE 6.1: REMAINING MULTS

You may specify up to 200 countries, although they may not all fit in the Remaining Multiplier Window, depending on the number of characters they contain. The [REMAINING MULTS](#) command can only be used for DX multipliers. The remaining domestic multipliers are taken directly from the data in the active `.DOM` domestic file.

You can increase the size of the Remaining Multiplier Window by setting the parameter [BIG REMAINING LIST](#) to `TRUE`. If you do not customise the list with the [REMAINING MULTS](#) command, you should find a default list of about 150 countries if you select the larger window.

6.5 TRMASTER Database

The TRMASTER database is contained in the file `TRMASTER.DTA`. This file is not included with the `TR-LOG` program, but can be created using tools included in the `POST` program. You can also take an existing `MASTER.DTA` file as used by `CT` and `NA` for their implementations of the Super Check Partial function and copy or rename it to `TRMASTER.DTA` to use it as a reasonable minimal `TRMASTER.DTA`. However, once you add information other than call-signs to the database, you will not be able to reverse the process and use the file with the other programs.

Both `POST` and `TR-LOG` look for the `TRMASTER.DTA` file first in the current working directory, and then in the directory where the program files (`TR.EXE` and `POST.EXE`) are located. It is usually 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, optionally, each call may have one or more fields associated with it, as shown in [Table 6.3](#).

6.5.1 ASCII Version of TRMASTER.DTA

`POST` allows you to convert the database to and from an ASCII file (called `TRMASTER.ASC`), which allows you to make changes manually in the database

Field name	Max Characters	Field Code
Hits	5	H
Name	12	N
Old Call	12	O
ARRL Section	5	A
CQ Zone	2	C
FOC Number	5	F
Grid	6	G
ITU Zone	5	I
Sweepstakes check	2	K
QTH	10	Q
Code Speed	2	S
Ten Ten Number	6	T
User Defined 1	12	U
User Defined 2	12	V
User Defined 3	12	W
User Defined 4	12	X
User Defined 5	12	Y

TABLE 6.3: TRMASTER FIELDS

should you wish to do so, using a program editor such as `Notepad` or `emacs`. Note that this is not normally necessary, since `POST` gives most people sufficient control over maintaining their database without the need for manual intervention.

In the ASCII file, all the data associated with a single call is on one line. The call appears first on the line, and fields are separated by spaces. Each field is introduced by the sequence `=*`, where the asterisk is replaced by a single character as shown in the third column of [Table 6.3](#).

So, for example, [Figure 6.2](#) contains a line from the author's current `TRMASTER.ASC` file:

```
N6TR =AOr =GCN85 =H23 =I06 =K67 =NTree =QOR =T40124 =UB =y20011122
```

FIGURE 6.2: LINE FROM `TRMASTER.ASC`

[Figure 6.2](#) tells us that Tree resides in Oregon (the A and Q fields), in the grid square CN85, that I have him in my log 24 times (the H field, see below), his ITU zone is 6, he was first licensed in 1967, and his Ten-Ten number is 40124. Two user-defined fields are also used: the U field carries his SS precedence and the Y field carries the date that his entry was last updated in my database. As you can see from the Y entry, the flags are case-insensitive.

A word about the Hits field: this field maintains a count of how many times the callsign has been found in the various files you can examine for data (typically log files for old contests). If there is no Hits value associated with a call, it defaults to the value of zero. This means, rather anti-intuitively, that the actual number of times that a particular station has been contacted is one more than the Hits value in the database. Using `POST`, 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 6.20](#) for information on how to use `POST` to edit and maintain your `TRMASTER` database. The rest of this section will discuss the various ways that `TR-LOG` can use the data in the database. You must have at least 40K of available memory in order to use the database when `TR-LOG` starts up. If you log enough contacts that the amount of memory falls below this value, `TR-LOG` will automatically disable the `TRMASTER` database in order to free the memory for other purposes.

6.5.2 Database Functions

The `TRMASTER` database is used for the following functions by `TR-LOG`:

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Names database

Shows name of station and allows you to include names 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 on the call you are working.

User defined displays

Shows any of the TRMASTER data for informational purposes.

Code Speed

TR-LOG can automatically change code speeds to the desired speed for working this station.

These functions are described in the following subsections.

6.5.2.1 Names Database

If a name is found in the database for the station that 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 described in [subsection 5.3.2](#). Stations that you log that had a name entry in the database will be marked with an asterisk in the log if [NAME FLAG ENABLE](#) is TRUE.

6.5.2.2 Super Check Partial

The Super Check Partial (SCP) feature allows you to see a list of callsigns that are in the database and which contain the letters you have entered in the Call Window. To enable this feature, set the [SCP MINIMUM LETTERS](#) parameter to a value higher than 2. When you have typed in the number of letters matching this parameter, you will be shown the calls that match your input. You can adjust the value of [SCP MINIMUM LETTERS](#) with the CTRL-J command.

Dupes in the SCP list will be highlighted (by default in a rather difficult-to-read red colour). As you type more letters, the list will dynamically shrink as it continues to show only 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 5.4](#) for more information on how to program window colours.

You may limit the stations that are displayed by using the `SCP COUNTRY STRING` command. For example, if you enter:

```
SCP COUNTRY STRING = K, VE, KL7, KH6, KP2, KP4
```

then only stations in these countries will be listed when `TR-LOG` executes the SCP function. A blank value for this command (which is the default) causes `TR-LOG` to list SCP matches from all countries. Placing a `!` or a `-` as the first character of the string of prefixes forces the SCP function to display callsigns from all countries *except* those whose prefixes appear in the list. Prefixes in the list are separated by commas, and spaces are optional.

6.5.2.3 Possible Calls

Possible calls, which are defined as “callsigns that are the same as the call you are working, except for one character”, are displayed when you press `<ENTER>` 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. For example, `JA1ABD` and `JA1ADD`, or `N6TR` and `N6TRA`, are mutual pairs of possible calls. If you decide that one of the possible calls displayed is the actual call of the station you are working, you can quickly move that call into the Call Window, replacing the current call, by pressing the `;` key. This moves the call that is currently highlighted by the `< >` cursor into the Call Window. You can move this cursor left and right, selecting different possible calls, with the `,` and `.` keys.

You can configure `TR-LOG` so that all the calls in the `TRMASTER` database are eligible to be possible calls, or you may configure it so that only those calls with names are used. This is controlled with the `POSSIBLE CALL MODE` parameter.

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 5.4](#) for more information on colour commands.

6.5.2.4 Initial Exchanges

Some of the data in the `TRMASTER` database can be inserted automatically into the Exchange Window as your initial exchange when working

a station that appears in the database. This function is controlled with the [INITIAL EXCHANGE](#) parameter; possible values are: NAME, NAME QTH, CHECK SECTION, SECTION, QTH, GRID, FOC NUMBER, ZONE, USER 1, USER 2, USER 3, USER 4, USER 5 and CUSTOM. Refer to [section 5.6](#) for more information on initial exchanges. Refer to [section 6.4](#) for information on how to put data into the various fields. Setting [INITIAL EXCHANGE](#) to 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.

6.5.2.5 User Display

You can choose to have any one of the TRMASTER data fields displayed under the Call Window purely for reference when working a station that 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 the display using multiple data fields.

6.5.2.6 Code Speed

If TR-LOG finds a code speed entry for the station being worked (in CQ Mode), it can adjust the CW speed used to send the exchange to the speed found in the database. To enable this feature, set the [CW SPEED FROM DATABASE](#) flag to TRUE. The CW speed will return to your original speed when the QSO is complete or when you start a new CQ after aborting the QSO.

6.6 Contest Simulator

The contest simulator is intended as a way for you to familiarize yourself with the operation of the program. It is a good way to get accustomed to the [AUTO SEND CHARACTER COUNT](#) and [AUTO CALL TERMINATE](#) functions, which tend to require practice before using them in a real contest. It is also a good idea to try the simulator before trying to use TR-LOG in the Sprint.

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

To enable the simulator, [SIMULATOR ENABLE](#) must be set to TRUE in your LOGCFG.DAT file. If you are starting the program without a LOGCFG.DAT file, TR-LOG will ask you if you want to use the simulator.

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

If you wish to use a single configuration file for the simulator and for the real contest, you should answer No to the prompt that asks whether you want to use the simulator. This will cause the program to ask you about your keying configuration. Then, once TR-LOG starts, you can turn the simulator on from the CTRL-J menu.

If you are practicing on a computer that is connected to a printer, you may want to edit the LOGCFG.DAT file and add a semicolon at the beginning of the lines that configure the keying I/O ports, so that they don't output bits to the printer, and so that any input from the printer doesn't cause TR-LOG to misbehave.

The simulator activity is triggered by specific keystrokes, not by the 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 <ENTER> key to call CQ. F9 can be used as a ?, which will cause a simulated station calling you to repeat his callsign. You can log a contact with <ENTER>, [QUICK QSL KEY](#) or [QUICK QSL KEY 2](#).

The simulator is more interesting when you have a name database with plenty of callsigns in it. Otherwise, callsigns are taken from a default short list of internal callsigns that is part of the TR-LOG program.

Unless you are simulating the Sprint, the only functions you can perform with the simulator are to call CQ and to have stations answer you. Read [subsection 6.18.1](#) for more tips on using the simulator for the Sprint.

The simulator has a DEBUG mode that will allow it to 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 sufficiently complete enough that it allows TR-LOG to log the contact), set [AUTO DUPE ENABLE CQ](#) to FALSE in your LOGCFG.DAT file, and type TR DEBUG to start the program. Once the program starts, pressing any key will interrupt the debug mode. Turning off the auto dupe function is necessary so that the simulator won't be confused if a dupe calls. You can turn off all the CW coming from the speaker by setting [CW TONE](#) to zero in your LOGCFG.DAT file. To maximize speed, you might want to set [CODE SPEED](#) to 99 in your LOGCFG.DAT file and make your CQ and exchange messages as short as possible. With a reasonable computer, you should be able to reach rates over 1000 an hour in this way.

6.7 RESTART.BIN

The `RESTART.BIN`³ file was created to enable `TR-LOG` to restart during a contest very quickly. Without the `RESTART.BIN` file, the program has to read in the raw QSO information from the `LOG.DAT`. This can take an annoying amount of time if the contest is in its closing hours. If the [PARTIAL CALL LOAD LOG ENABLE](#) feature is enabled, re-reading the raw data takes even longer. In addition, without a `RESTART.BIN` file, all initial exchange information is lost during a restart.

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 of partial calls
- Number of initial exchanges
- Partial call list
- Initial exchange list

The `RESTART.BIN` file is normally updated after every QSO. If your disk is slow, you might want to only update it when you exit the program, which can be done by setting [UPDATE RESTART FILE](#) to `FALSE`. This can be done from the `CTRL-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 when you restart. If, at restart time, `TR-LOG` detects that the number of contacts that appear to be in

³`RESTART.BIN` is called `RESTART.RST` if the name of the log file is other than `LOG.DAT`

the LOG.DAT file is much different than the number in RESTART.BIN, TR-LOG will ignore the RESTART.BIN file.

If you make changes to your LOG.DAT file before you restart TR-LOG, your RESTART.BIN file will be ignored. The program looks at the date and times for the two files and ignores RESTART.BIN if its timestamp is earlier than the timestamp on the LOG.DAT file.

There is a utility in the POST program that will allow you to see the data in the RESTART.BIN file, if you are curious.

6.8 Packet Interface

TR-LOG can act as a terminal for a packet TNC. It can also monitor the TNC while you are operating the contest. It will insert spots into the bandmap and notify you when a multiplier is posted on the packet network. If you are not using the bandmap, the last ten spots can be reviewed with the CTRL-U command. If you select a spot to work (from either the bandmap or the CTRL-U menu), the selected call will be inserted into the Call Window, and, if you have an interfaced radio, the rig will be moved to the correct frequency. If you have two rigs, you can select which will be used to make the QSO with the left or right arrow keys (only if you use the CTRL-U command). If you set **SWAP PACKET SPOT RADIOS** to TRUE, then the second radio is selected with the left cursor key (which is handy if your station is laid out with radio number 2 on the left).

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 with your TNC at 2400 bps. Normally, this interface is configured for 7 bits, 1 stop bit and even parity. Some interfaces require an 8-bit connection with 2 stop bits and no parity. This can be configured by setting **EIGHT BIT PACKET PORT** to TRUE in your LOGCFG.DAT file. You can also specify other rates, up to a maximum of 9600 bps.

The CTRL-B command will open a 13-line window for use as a packet terminal. Pressing CTRL-B a second time will close this window. As long as this window is visible, any characters you type will be sent to your TNC. You can send any of the CQ MEMORY messages by pressing the appropriate function key (F1 to F10) while the packet window is displayed; this allows you to continue to call CQ 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 before you can start the next CQ.

While you are making QSOs with `TR-LOG`, the program continually monitors 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 had performed an `ALT-D` dupecheck. With the `PACKET SPOTS` command, you can control whether all spots or only multiplier spots are displayed in this manner.

If you receive a packet message addressed to your call (as defined by the `MY CALL` entry in your `LOGCFG.DAT` file), the computer will beep and the message will be displayed in the quick command window.

The best way to monitor packet spots is with the bandmap. Packet spots will be added to the bandmap just as if you had performed dupe checks on the stations yourself. You can select any of the spots by executing the `CTRL-END` command, selecting the desired spot with the cursor keys, and then pressing `<ENTER>`. If you are not using the bandmap, you can access the last 10 spots with the `CTRL-U` command. If you execute a `PacketCluster SH/DX` command, the returned data will also be added to the bandmap.

When you select a spot, you will be put into `S&P Mode`, the station's call will be placed into 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 send a packet spot, the ``` character will spot the station you are currently working, or, if you are not working a station, the most recent station you worked. This feature is only available if you have interfaced a radio to the computer so that `TR-LOG` knows the correct frequency to insert into the spot. If you do not have an interfaced radio, you can use the `CTRL-B` command and enter the spot manually. Not all keyboards have the ``` character; you may change the key used to perform this function with the `PACKET SPOT KEY` command. Packet spotting may be completely disabled by using the `PACKET SPOT DISABLE` command.

Some packet interfaces require `TR-LOG` to add a line feed after receiving a carriage return. This can be enabled by setting `PACKET ADD LF` to `TRUE`. You can also automatically send a carriage return to the TNC when leaving the `CTRL-B` window with the `PACKET AUTO CR` function. This ensures that the TNC's input buffer is properly cleared.

If you are using `TR-LOG` with multiple computers and want the `CTRL-B` packet screens to be usable from all of the computers in the network, set `BROADCAST ALL PACKET DATA` to `TRUE`.

6.9 Radio Interface

You can interface most Elecraft, Kenwood, Yaesu, Icom, JRC Ten-Tec rigs to the computer, and control them from `TR-LOG`. The interface will allow

the program to set the frequency and mode of the radio and monitor the frequency to which the radio is tuned. Owners of Yaesu and Kenwood rigs will find support for split frequency operation and RIT control (except for the FT817).

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, ALT-V or ALT-M)⁴. You can also change band/modes from the rig and the program will automatically follow the rig.

To interface your radio to TR-LOG, you will need to use the **RADIO ONE CONTROL PORT** or the **RADIO TWO CONTROL PORT** command in your LOGCFG.DAT file. This command identifies to TR-LOG the serial port to which the radio is connected. You will also need to tell the program which type of radio you are using for each port, with **RADIO ONE TYPE** or **RADIO TWO TYPE**. Examples of typical commands are shown in Figure 6.3:

<pre> RADIO ONE TYPE = TS930 RADIO TWO TYPE = FT890 RADIO ONE TYPE = IC735 RADIO TWO TYPE = JST245 </pre>

FIGURE 6.3: RADIO TYPES

The default baud rate for radio communication is 4800 (no parity, 8 bits with 2 stop bits). If you need to change this rate, use the **RADIO ONE BAUD RATE** or **RADIO TWO BAUD RATE** commands. Please note that higher baud rates may not work with some rigs; if you have trouble with communication between the rig and TR-LOG, try switching the baud rate (in TR-LOG *and* on the rig) to 4800.

You can QSY the active radio to a specific frequency by typing the frequency into the Call Window and hitting <ENTER>. (If you have two radios, then you can change the frequency on the inactive radio by using CTRL-<ENTER> instead of <ENTER>.) Appending a B to the frequency will

⁴Note to users of the Omni: There is a setting called CdE (Continuous data Echo) in user option menu 2. This should be set to OFF (which is the default) in order for the ALT-B and ALT-V commands to work reliably.

To access the user options menus, press and hold the LOCK button for 2 seconds. "CHOOSE" will appear on the display. Press the "2" key on the keypad. You should now be able to set the options in user menu 2. Select the option you wish to set by turning the main tuning knob. The first option in this menu is "bd" or baud rate (default 1200). The second option is "C-Id" or transceiver address (default 04). The third option is "CdE" (default OFF). Change any option by pressing the up or down keys on the keypad.

To exit the menus, press LOCK twice.

cause the frequency of the VFO B on the rig to change. If you are in S&P Mode and [SHIFT KEY ENABLE](#) is TRUE, you can tune the VFO frequency with the shift keys. You can control VFO B on some radios by preceding the frequency with the single dash character (-). This will also place the radio into split mode, which can be useful when working split on 40m or 75m.

In CQ Mode, the RIT control lets you adjust the RIT offset without moving your hands from the keyboard (if [SHIFT KEY ENABLE](#) is TRUE). To QSY the receiver down, press the left SHIFT key; to QSY up in frequency, press the right SHIFT key. Pressing both keys at the same time, or pressing the double-quote key, ", will clear the RIT. RIT control works with Kenwood and some Yaesu rigs. On the Ten-Tec Orion, the RIT control is preset to move the RIT to -200 Hz or +200 Hz when the left or right shift key is pressed.

There is also a special CW character (>) that clears the RIT when it is included in a programmed CW message. This should normally be used in all CQ messages and QSL messages.

Some radios do not correctly return their frequency/mode information when the computer commands a change in band or mode. Normally TR-LOG monitors and uses the response when such a command is sent, but the response can be ignored by setting [RADIO ONE TRACKING ENABLE](#) (or [RADIO TWO TRACKING ENABLE](#)) to FALSE.

There are some commands that control the length of time that TR-LOG 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 timeout period.

If you are having a problem with an Icom interface, make sure the [RECEIVER ADDRESS](#) parameter has the correct value 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 rigs can be found in [Appendix A](#) under [RECEIVER ADDRESS](#).

Some older FT-990 and FT-1000 rigs need a firmware upgrade from Yaesu in order to function properly. You will need firmware version 1.30 or later for the FT990, and firmware version 6.0 or later for the FT1000D. You can determine your firmware version by holding down the 1.5 and 7 MHz buttons on the front panel while powering on the rig. After a pretty light show, you will be shown the firmware versions. This procedure does not reset any of your memories. The FT890, FT920 and FT1000MP radios do not require this procedure.

6.10 Multi Operation

TR-LOG supports connecting two or more computers to form a network. The network supports exchange of QSO information, packet data, new bandmap entries, operator messages and clock data. Only one serial port per computer is required for the network.

Use the **MULTI PORT** command to enable the network and to specify the port that you wish to use (SERIAL 1 to SERIAL 4). The network baud rate may be set with the **MULTI PORT BAUD RATE** command. In addition, the commands **MODEM PORT** and **MODEM PORT BAUD RATE** are available to allow you to connect computers using a dedicated modem port.

Error checking and automatic retries make the network reliable even in the presence of a modest amount of RF interference or if a computer is taken down for a few minutes. At 4800 baud, there is enough bandwidth in the system for total QSO rates over 2,000 per hour. A typical network would look like [Figure 6.4](#).

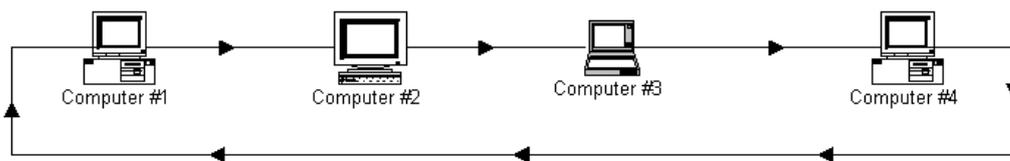


FIGURE 6.4: TYPICAL MULTI NETWORK

The serial output (pin 2 of a DB-25) of computer #1 connects to the serial input (pin 3 of a DB-25) of computer #2. Then the serial output pin of computer #2 is connected to the serial input pin of computer #3, and so on. The only pins you need to connect are the serial input and outputs and the appropriate grounds. No other control signals are necessary. If you have a DB-9 connector instead of a DB-25, the input and output pins are reversed from the DB-25 pin-outs (*i.e.*, pin 3 is output and pin 2 is input). Ground is on pin 7 of a DB-25 and pin 5 of a DB-9. To minimise interference with the flow of data when transmitting, you should use shielded cables.

Messages sent around the loop contain a checksum. If a message doesn't traverse the entire loop successfully, a retry will be sent. The time that TR-LOG waits before sending the first two retries can be adjusted for optimum performance. The value of **MULTI RETRY TIME** should be set to a few seconds per computer in the loop.

Depending on the value of the **SEND QSO IMMEDIATELY** flag, a QSO will be sent to the 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 command to make changes to your log, as the changes will not be sent to the other computers. Instead use the CTRL-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, set **MULTI MULTS ONLY** to TRUE in your LOGCFG.DAT file. If you are sending QSO numbers as part of the exchange, you might want to use the **QSO NUMBER BY BAND** parameter so that you can send independent QSO numbers on each band. If one of the computers is connected to a packet node, you can use CTRL-B to access the packet window from any of the networked computers as long as **BROADCAST ALL PACKET DATA** is true (which is the default). Beware that packet commands or messages are not sent on the network until TR-LOG sees a carriage return. Therefore, if you want to issue TNC commands, you have to press CTRL-C to enter the TNC command mode, followed by <ENTER> to force the prompt to be displayed.

If you would like to send a message to any single computer, or to all of them, press the double quote key, ". A window will appear, allowing you to input a message. You may start the message with either the band you want the message to go to (*e.g.*, 80) or ALL to send it to all stations. Follow this with a space, and then type your message, followed by <ENTER>. The message will then appear at the appropriate station(s). Messages sent between computers can be logged to the file INTERCOM.TXT by setting **INTERCOM FILE ENABLE** to TRUE. You can view the last five transmitted messages by pressing the CTRL-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 7.3](#) for more information.

The **MULTI INFO MESSAGE** command allows you to specify information that is available to other computers in the network. There are two special characters that may appear in a **MULTI INFO MESSAGE**, as shown in [Table 6.4](#).

There are two ways to view the current **MULTI INFO MESSAGE** for all the computers on the network. If the bandmap is enabled, the messages will appear at the bottom of the bandmap window and are displayed continuously. Otherwise, you may use the CTRL-E command to view the messages in the editable log.

Updated messages are sent to the network when you perform any of the following tasks:

Character	Meaning
\$	In CQ Mode, indicates your run frequency; else indicates that you are in S&P Mode
%	Your current rate

TABLE 6.4: MULTI INFO MESSAGE SPECIAL CHARACTERS

1. Transmit the F1 CQ (either with the F1 key or by pressing the <ENTER> key while in CQ Mode).
2. Enter or leave S&P Mode.
3. Change the [MULTI INFO MESSAGE](#) by using the CTRL-J menu.

There is also a facility to propagate altered CTRL-J parameters around the network. Pressing ALT-N while the CTRL-J menu is visible will send the highlighted parameter to all the computers on the network, and will also add the parameter to the configuration file of each computer.

It is usually a good idea to ensure that all the computers in a network have a common notion of the time. You can do this by using the ALT-T command, which asks you if you want to send the new date/time to all the computers on the network.

6.10.1 Compatibility with a K1EA network

The K1EA CT program uses different networking messages from TR-LOG. However, TR-LOG supports receipt and transmission of K1EA-style messages for use on K1EA-compatible networks. Support for these messages is enabled by setting [K1EA NETWORK ENABLE](#) to TRUE.

When support for K1EA networks is enabled, TR-LOG supports the following additional functions for those networks:

- Run frequency information is transmitted automatically when you press F1 or F2 when in CQ Mode.
- You can pass multiplier frequencies by entering the command \PASSFREQ in the Call Window.
- Pressing ALT-D allows you to pass a station.

6.11 RTTY

TR-LOG provides limited support for RTTY operation. Please note that Tree says of the RTTY support, “There are still some rough edges - so there isn’t any kind of warranty”. This section is intended to provide enough information to get you on the air with RTTY operation, but be aware that TR-LOG is not designed to compete with RTTY-specific contest logging programs. In addition to this rather brief section, the author strongly recommends that you read [Appendix D](#) prior to trying RTTY with TR-LOG.

In order to use the RTTY support, you need a multi-mode TNC that supports RTTY. In other words, the TR-LOG program does not include any modulator/demodulator functionality; it serves merely to simplify operation of the TNC you already have.

To enable RTTY support, place the [RTTY PORT](#) command in your LOGCFG.DAT file (to tell TR-LOG on which port the TNC is connected) and enable the TR-LOG digital mode with the [DIGITAL MODE ENABLE](#) command.

Once these commands are executed, the bottom half of your screen will display what the TNC is transmitting.

The F10 key toggles a direct connection from your keyboard to the TNC. This allows you to configure your TNC or to type explicitly any text that you want to transmit by pressing F10, followed by the text that you wish to send to the TNC, followed by another F10.

RTTY operation is much like CW operation. The CW Function key messages and the ordinary QSO messages will be sent to the TNC in the same manner that they are transmitted on CW. Two special characters may be used in these messages: \ for your call, and # for a QSO number. Note, however, that RTTY operation does not support <ENTER> to transmit a CQ; to call CQ, you must use the F1 key.

RTTY-capable TNCs typically use special characters or strings to switch between transmit and receive modes. These may be set with the [RTTY SEND STRING](#) and [RTTY RECEIVE STRING](#) commands. The <xx> syntax for entering control characters may be used with these commands (see [section 5.2](#)).

6.12 DVP

TR-LOG 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.

To enable the DVP, you need to set **DVP ENABLE** to TRUE in your LOGCFG.DAT file. You also need to run the DVPTSR program before starting TR-LOG.

It is also a good idea to set up a RAM disk so that the DVP messages can be accessed without accessing your hard disk. The RAM disk should have a capacity of at least 1 MB, and more if possible. The following command in your CONFIG.SYS file configures your system with a 2 MB RAM disk:

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

The /e in this command makes the RAM disk use extended memory. Use /a instead for expanded. 2048 is the size of the RAM disk (in kilobytes).

To force the DVP to use the RAM disk, use the **DVP PATH** command in your LOGCFG.DAT file.

To program the voice messages, put TR-LOG into 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 it is necessary for some reason. There is a short-cut to program either the CQ or Exchange function key memories F1 to F10. You can program these by pressing CTRL-F1 to CTRL-F10 and then using <ESC> to stop recording. If you press your footswitch while recording, your message will also be transmitted.

The DVP can be turned off the same way as CW, by using the ALT-K command.

The DVP backcopy function makes the last 30 seconds of receiver audio to available for listening to after the contest or repeated again immediately. To enable the backcopy function, use the CTRL-J menu to set **BACKCOPY ENABLE** to TRUE.

When the backcopy feature is active, you can save portions of the previous audio to a file in order to listen to it later. This is done with the keys ALT-6 through ALT-0. ALT-6 will save the last 5 seconds of receiver audio to a file. The file name will be the current QSO number with the extension .BCP. Other keys save different durations of audio, as specified in Table 6.5.

To listen to these files, put yourself in SSB mode and use the ALT-= 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 on your RAM disk.

Character	Save duration
ALT-6	5 seconds
ALT-7	10 seconds
ALT-8	15 seconds
ALT-9	20 seconds
ALT-0	30 seconds

TABLE 6.5: AUDIO SAVE COMMANDS

Character	Replay duration
ALT-1	1 second
ALT-2	2 seconds
ALT-3	4 seconds
ALT-4	8 seconds
ALT-5	16 seconds

TABLE 6.6: BACKCOPY COMMANDS

Another backcopy feature is an instant replay of the last few seconds of receiver audio using the ALT-1 through ALT-5 keys as in [Table 6.6](#).

The backcopy record function continues to record even when an instant replay is being performed.

6.13 Bandmap

The bandmap is one of the more powerful tools the program can give you for efficient Search and Pounce operation. Not only does it help you to identify quickly 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 bandmap, set [BAND MAP ENABLE](#) to TRUE in your LOGCFG.DAT file. When you do this, by default only stations on the current band and mode are visible. To display all the stations in the current bandmap memory, set [BAND MAP ALL BANDS](#) to TRUE. The band map will display VHF and/or WARC bands only if [VHF BAND ENABLE](#) and/or [WARC BAND ENABLE](#) are TRUE. To show the frequency of all stations regardless of mode, set [BAND MAP ALL MODES](#) to TRUE.

The mode associated with a station is either SSB or CW; for every band up to 144 MHz, a frequency is defined below which the mode is assumed

to be CW, and above which it is assumed to be SSB. Table 6.7 lists the default cutoff frequencies. These values may be changed with the `BAND MAP CUTOFF FREQUENCY` command. Some rigs (particularly Kenwood rigs) do not support changing the mode of the B VFO; if you are using such a rig, the VFO mode may be incorrect for split-mode operation even though the displayed frequency is correct.

Band	Cutoff frequency (kHz)
160	1840
80	3700
40	7100
30	10150
20	14100
17	18110
15	21200
12	24930
10	28300
6	50100
2	144200

TABLE 6.7: BANDMAP MODE CUTOFF FREQUENCIES

The bandmap displays a list of stations sorted by frequency for the active band⁵. Callsigns are entered when you perform a dupecheck, make an S&P Mode QSO, or from information received from the packet interface. The calls will continue to be displayed for a period of time, changing colour to indicate how long it has been since the call was spotted⁶. By default, calls remain on the display for 60 minutes, but this can be changed with the `BAND MAP DECAY TIME` command. An asterisk next to the callsign indicates that you have already worked the station. The frequency of each station is shown along with the callsign.

The bandmap can store QSX transmit frequencies that come from packet spots. Entries are marked with a small x if QSX information is available. Entries marked with a smiley face are new multipliers (the smiley face will disappear once the multiplier is worked).

By default, the bandmap displays all calls, including dupes. You can

⁵If you are operating a multi network, the bandmap at each rig is updated as necessary with new dupe info as soon as a new QSO arrives in the editable window.

⁶In some releases, this feature was broken if one used the `BAND MAP DECAY TIME` command.

exclude dupes from the display by setting **BAND MAP DUPE DISPLAY** to **FALSE**.

If all the bandmap entries do not fit on the screen, the bandmap will automatically scroll as you tune the VFO or navigate through the bandmap with cursor keys (see below for information on how to navigate the bandmap).

The bandmap works best when you have an interfaced radio so that **TR-LOG** can read the frequency to which you are tuned directly from the rig. If you want to use the bandmap without an interfaced radio, the program will have to ask you for the frequencies each time you add a new entry⁷. If you want to disable the prompt for frequency information, set **ASK FOR FREQUENCIES** to **FALSE**. In this case, only packet entries will be shown. When entering a frequency, you can skip the MHz portion (so, for example, if you are on 14.065 MHz, you can enter either 14065 or just 65). If you have no rig interface, the bandmap cursor and display will do their best to follow your presumed location on the band, based on the frequencies that you enter manually.

When you are in S&P Mode and tune in a station already in the bandmap, 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 displayed 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 if you are using the bandmap with two radios, this feature is disabled. You can always update the timestamp for a blinking entry with the **CTRL-Y** command.

If you are close to a station in the bandmap and the call has appeared in the Call Window, then you can delete the call from the bandmap by pressing **CTRL-DEL**.

If you are tuning the band and you hear someone who is not yet in the bandmap, and if you don't want to wait for him to sign his call (perhaps he is a lid who only gives his call every couple of minutes), then you can enter a dummy "placeholder" call into the band map by pressing **CTRL-INS**. This will insert a call of the form **NEWmmss** into the bandmap, where **mmss** is the current minute and second.

When using two-radio mode, you will be shown the band on which you performed your last dupecheck or S&P Mode QSO. Also, if you start tuning either radio across the band, the bandmap will switch to the band on which you are tuning.

When a call is initially displayed, it is coloured white; after a minute

⁷From experience, the author can attest that this is painful, but possible

it changes to yellow and then gradually fades into the background. After 60 minutes (or the value programmed by the **BAND MAP DECAY TIME** command), the call disappears. This helps to give you a quick visual picture of which parts of the band you have most recently visited.

You can send your rig directly to the frequency of a bandmap entry. First use the **CTRL-END** command to create a cursor in the bandmap part of the screen; you can then move the cursor to the desired station with the arrow keys. Pressing **<ENTER>** will send your rig to the frequency of the currently-selected station. Pressing **** will delete the entry. Use **<ESC>** to exit the bandmap. If the entry has associated QSX information, your rig will be put into split mode and the proper transmit frequency loaded.

While your cursor is in the band map, there are some quick commands that are active:

1. Pressing **D** or the rightmost mouse button will toggle between the dupe and no-dupe display modes;
2. Pressing **M** will toggle between the current-mode and all-mode display modes;
3. Pressing **B** will toggle between the current-band and all-band display modes.

If you perform a dupecheck (by pressing **<SPACE>**), on a station already in the bandmap, the previous entry will be deleted and the new one will be displayed. This feature is intended to keep multiple entries from appearing in the bandmap 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**, the frequency at which you do so will be entered on to the bandmap, along with the current QSO number. This helps to show you a recent history of what you have been doing, and where.

When you exit **TR-LOG**, the bandmap is saved in a file called **BANDMAP.BIN**, so you should not lose the bandmap data if you have to stop and restart the program.

6.14 VHF/UHF

Several features of **TR-LOG** have been tailored for the VHF/UHF contest operator.

TR-LOG allows you to work rovers as they change grid squares. Rover stations are logged with the suffix /R added to 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 over the initial exchange entry that TR-LOG automatically enters from the earlier QSO.

When operating on VHF/UHF, TR-LOG adds FM as a supported mode. This allows you to separate FM QSOs from SSB ones. FM QSOs are treated just like SSB QSOs for dupe and multiplier checking. Use the ALT-M command to switch to/from FM.

You can disable the HF bands by setting [HF BAND ENABLE](#) to FALSE. This is the default for VHF/UHF contests.

TR-LOG allows operation on all UHF bands, including light.

6.15 Farnsworth CW

TR-LOG allows you to use CW with Farnsworth spacing when sending messages from memories or when sending the contents of a file with the TR SENDCW command (see [section 7.3](#)).

Farnsworth CW adds additional space between characters in order 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 controls whether Farnsworth spacing is used. The [FARNSWORTH SPEED](#) command controls the code speed at which the Farnsworth feature is enabled. As you decrease your code speed below this rate, you will find more and more space 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 value 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 by using the commands listed in [Table 6.8](#)⁸.

⁸The CTRL-[character is the “escape” character, ASCII code number 27. It may not be easy to produce this character on some non-English keyboards. On all keyboards,

Command	Action
CTRL-[2	Toggle FARNSWORTH ENABLE value
CTRL-[3	Set Farnsworth speed to 25 WPM
CTRL-[4	Set Farnsworth speed to 35 WPM
CTRL-[5	Set Farnsworth speed to 45 WPM
CTRL-[6	Set Farnsworth speed to 55 WPM
CTRL-[7	Set Farnsworth speed to 75 WPM
CTRL-[8	Set Farnsworth speed to 95 WPM

TABLE 6.8: FARNSWORTH CONTROLS

These commands can be entered when editing a CW message with the ALT-P command by pressing CTRL-P then CTRL-[(or ALT-027 on the keypad), 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 [section 7.3](#) for more information on this and other command line parameters.

6.16 DVK

A DVK (Digital Voice Keyer) may be used with TR-LOG. External DVKs interface to the computer via a parallel port. You tell the program which port to use with the [DVK PORT](#) command. [Appendix B](#) describes how to build a correct interface between an external DVK unit and the computer.

If you are using an internal DVK unit (such as the W9XT card), you do not have to make a cable, but you still need to specify for which port the card is configured. The W9XT card can be programmed under software control, without using the TSR program that is supplied with the card. Controlling the card this way frees valuable memory. The W9XT card can also be programmed using TR-LOG's ALT-P command. You may program extra delay into messages by inserting the sequence:

```
CTRL-C DVKDELAY=n CTRL-D (n is the delay in milliseconds)
```

however, you should be able to produce the correct character by pressing the sequence "027" on the keypad while keeping the ALT key pressed.

into the message (without the spaces).

If you use ALT-P to generate this command, the control characters are entered, as usual, by preceding each one by the CTRL-P key.

When you inform TR-LOG that a DVK is available, 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 = DVK4
CQ MEMORY F10 = DVK0 (aborts message in progress)
```

This means, for example, that Memory 1 is played if you press F1 while in CQ Mode, etc. Pressing F10 aborts the message that is currently being sent. <ESC> 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.

There is a shortcut that allows you to program either the CQ or Exchange function key memories F1 to F10. You can program these by pressing the correct key in the range CTRL-F1 to CTRL-F10, and then pressing <ESC> to stop recording.

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](#).

If you are using the Auto-CQ function with a DVK, then its operation is slightly different from when using Auto-CQ on CW and with DVP. Since there is no way for the program to detect the end of a DVK message, the program cannot know how much space to add between messages in order to get correct timing; therefore, when using Auto-CQ with a DVK, the timing you enter is the duration from the beginning of one message to the beginning of the next message (instead of being the duration of the silence period between messages).

6.17 Foot Switch

A foot switch can be interfaced to your computer and used to help make TR-LOG 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 foot switch 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 releasing the switch.

The parameter **FOOT SWITCH MODE** will determine what will happen when you press the foot switch. The supported modes are listed below. You can change the mode from within the CTRL-J menu.

CONTROLENTER

Acts as if the CTRL-<ENTER> key was pressed, advancing the QSO one step without sending any CW.

CW GRANT

When you try to send CW the PTT signal will be asserted, but no CW will be transmitted until you depress the footswitch.

DISABLED

Disables all actions associated with the foot switch.

DUPECHECK

Executes the ALT-D command when the foot switch is pressed.

F1

Acts just as if you had pressed the F1 key.

LAST CQ FREQ

Returns you to the last frequency on which you called CQ.

NEXTBANDMAP

Advances you to the frequency of the next (*i.e.*, higher frequency) entry in the bandmap for the current band and mode and which you have not yet worked. Also puts you into S&P Mode.

NEXTDISPLAYEDBANDMAP

Advances you to the frequency of the next (*i.e.*, higher frequency) displayed entry in the bandmap that you have not yet worked, regardless of the band and mode of that entry. Also puts you into S&P Mode.

NEXTMULTBANDMAP

Advances you to the frequency of the next (*i.e.*, higher frequency) displayed entry that is a needed multiplier in the bandmap for the current band and mode. Also puts you into S&P Mode.

NEXTMULTDISPLAYEDBANDMAP

Advances you to the frequency of the next (*i.e.*, higher frequency) displayed entry that is a needed multiplier in the bandmap, regardless of the band and mode of that entry. Also puts you into S&P Mode.

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 TR-LOG to route your foot switch to the proper radio.

QSO NORMAL

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

QSO QUICK

Same as QSO NORMAL, except when finishing a CQ Mode QSO, when the [QUICK QSL MESSAGE](#) will be sent in place 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 in the Call Window, and allows you to continue entering characters until you press <ENTER>.

6.18 Specific Contests

6.18.1 Sprints

The NCJ CW Sprint contest (and the proliferating stable of similar “sprint” contests) presents a challenge to a real-time logging program. This section describes some ways that TR-LOG allows you to operate sprint contests efficiently. The text is geared to the NCJ Sprint, but the same principles may be adapted for most other sprints.

There are several important pre-programmed shortcuts 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 CQ Mode and S&P Mode very often. The typical mode of operation is to look for a station to call, work him, have someone call you, work him and then go searching up the band again.

Often, you will want to switch to S&P Mode and send your call, all in an instant. This situation occurs 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 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 should type ALT-Z. This will move the cursor down to the Exchange Window and enter any initial exchange information the program might have for the station you are working (typically, name and QTH). If this information is correct, you can log the QSO by entering just the station's QSO number.

When you have completed your S&P Mode QSO, you may be called by a station that you need to work in CQ Mode. In the Sprint, the `SPRINT QSY RULE` variable is set to TRUE. This means that `TR-LOG` will automatically switch from S&P Mode to CQ Mode when the S&P Mode QSO is completed. If you also enable the `AUTO SEND CHARACTER COUNT` and `AUTO CALL TERMINATE` features, you can quickly respond to a calling station. TU is a good `QSL MESSAGE` for Sprint contests. If no one answers your `QSL MESSAGE`, simply hit <ENTER> and your F1 CQ will be sent.

Another useful command is `AUTO S&P ENABLE`. When this is TRUE, `TR-LOG` will automatically enter S&P Mode if you move the VFO more than 1 kilohertz in 1 second. (You can change the threshold tuning rate at which the mode change occurs with the `AUTO S&P ENABLE SENSITIVITY` command.)

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. To see this number, execute the ALT-E command, followed immediately with an <ESC>. If you have a VGA monitor and are not using the bandmap 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 to you. After you work this first station, a second station will call him. When that QSO is completed, you can call the second station and regain control of the frequency. To do this, use <SPACE> to send your call and enter S&P Mode. While the station is calling you, type his call and then press ALT-Z. Type the missing information into the Exchange Window, then send your exchange by pressing <ENTER>. These specific keystrokes are required when using the simulator and demonstrate the most efficient way to use the program. Of course, 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 by using the `(` character in your CW message. If you want to set the name to send for your first QSO, use the `MY NAME` command in your `LOGCFG.DAT` file to define it.

6.18.2 WAE

The WAE (Worked All Europe) contest is distinguished by the inclusion of QTCs, which allow traffic passed from a non-EU station to an EU station to count for points for both parties. We will not describe the details of QTCs here (for that see the WAE rules), and will assume that the reader is already familiar with the basic principle of passing QTCs.

`TR-LOG` provides special support for both sending QTCs (for the non-EU station) and for receiving them (for the EU station).

6.18.2.1 Sending QTCs

When the WAE contest is selected with the `CONTEST` command, special support for sending QTCs is enabled for stations outside Europe.

While making a QSO with a European station, pressing `CTRL-Q` causes `TR-LOG` to begin the process of sending a QTC. When it does this, `TR-LOG` will automatically:

- Numbers the QTCs for you;
- Sends as QTCs only QSOs that have scrolled out of the editable log (to ensure that you cannot change the details for a QSO that has been sent as a QTC);
- Ensures that a QTC does not contain a QSO with the station that is receiving the QTC.

Figure 6.5 shows the screen in the process of sending a QTC. On CW, `TR-LOG` begins the process by asking the other station if it is ready to receive the QTC, and also tells the other station the number of the QTC and the number of QSOs that will be transmitted. Once the station has responded that it is ready to receive the QTC, pressing `<ENTER>` causes the next QSO in the QTC to be transmitted. If the recipient asks for a fill, then either a single field or the entire QSO may be repeated by pressing a single key as shown in Figure 6.5. Pressing `S` causes the QTC to be stopped at the current place (*i.e.*, no more QSOs are sent). Pressing `<ESC>` causes the entire QTC to be aborted.

```

./tr
10304 Pts          2000 WAE Contest N7DR          Mem = 16160
08:46:09  160    80    40    20    15    10    All
QSOs      0      0      0    62    22    0    84    QSO needs for G4AMJ
DX Mults  0      0      0    20    12    0    32    160 80 40 20 15 10
QTCs Pending = 5  Number QTCs sent = 78
4J 4L 4R 6Y 8P 9A 9M2 9M6 9Y BU BY C6 CE CM CT CT3
CU DL DU EA EA6 EA8 EA9 EI EK ER ES EU EK EY EZ F FM
G GD GI GJ GM GW HA HB HC HC8 HI HK HL I IS J6 JA K
KH2 KH6 KL KP2 KP4 LA LU LX LY LZ OA OE OH OK OM ON
OZ P4 PA PJ2 PJ7 PY S5 SM SP SU TG TI UA UA2 UA9 UK
UM UR UE UK UU XE YB YL YO YU YU Z3 ZA ZF ZL ZS
1: 2331 OK1FCA 246
2: 2336 OK1FHD 60
3: 2338 DJ9DZ 145

20CW 13-Oct-00 08:46 85 G4AMJ England
Have 0 QTCs
Rig 1 35 WPM This hr = 0 Rate = 0
14/5 RETURN-next ESCAPE-abort S-Stop T-time C-call N-qso# A-all
No calls found
F1-DE+C1 F2-Ex F3-RST F4-NR F5-C1+Ex F8-EE F9-? Alt-AskforHis

```

FIGURE 6.5: SENDING A QTC

Several special commands may be used to control the style in which QTCs are sent.

- The **QTC EXTRA SPACE** command (default TRUE) causes the elements to be transmitted with additional space inserted between them.
- The **QTC MINUTES** command (default FALSE) causes TR-LOG to send only the minutes of the time field instead of all four digits, if the hour of the QSO is the same as that of the prior QSO.
- The **QTC QRS** command (default TRUE) causes the QSOs in the QTC to be sent slightly slower than the current setting of the CW speed.

Transmitted QTCs are recorded in the files QTC.DAT and QTCLIST.DAT.

6.18.2.2 Receiving QTCs

TR-LOG also eases the task of receiving QTCs. If you are a European station, pressing CTRL-Q causes TR-LOG to begin the process of receiving a QTC. The program asks you to enter the number of the QTC (in the usual #/# format). Pressing <ENTER> causes a CW QRV to be sent, indicating that you are ready to proceed with the first QSO in the QTC. Pressing <ENTER> after each received QSO causes R to be sent, so that the other side knows to proceed with the next QSO in the QTC.

Figure 6.6 shows the screen while in the process of receiving a QTC. TR-LOG allows you to ask for fills (unlike the non-European case, the keys used for this are not displayed on the screen). These special keys are shown in Table 6.9.

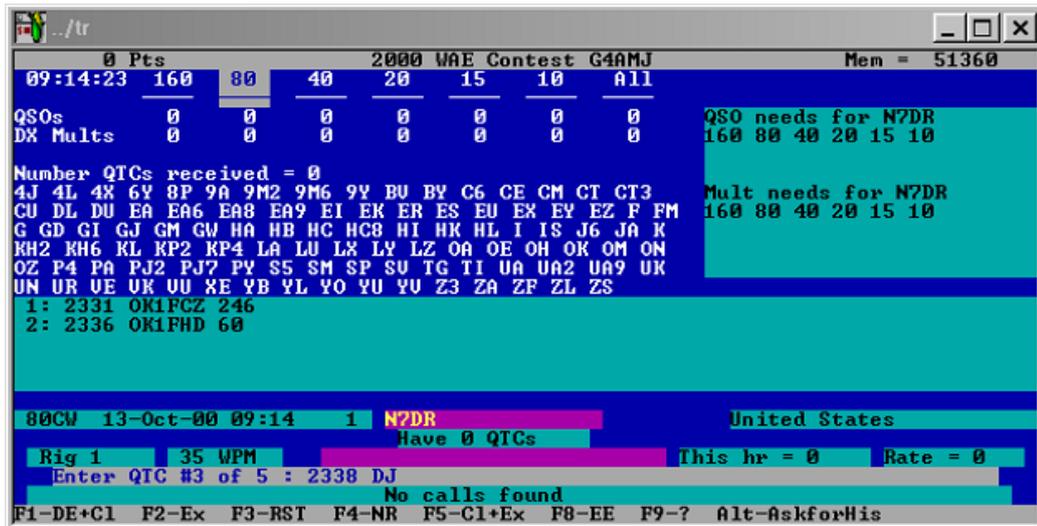


FIGURE 6.6: RECEIVING A QTC

Key	Sends
ALT-A	AGN?
ALT-R	RPT?
ALT-T	TIME?
ALT-C	CALL?
ALT-N	NR?

TABLE 6.9: QTC RECEPTION KEYS

When it records the QTC, TR-LOG makes no attempt to parse the fields — so that if, for example, the recipient types 2338 DJ8DZ 145 and then asks for a fill of the call, which turns out to be DJ9DZ, then typing DJ9DZ causes the new call to be added to the end of the recorded QTC (unless the operator takes the trouble to move the cursor to replace the incorrect call with the correct one). QTCs are recorded in the files QTC.DAT and QTCLIST.DAT.

6.18.3 CQ WW

CQ WW is, in some sense, the “canonical” DX contest and, predictably, TR-LOG is designed to make operation in this contest especially simple. As soon as TR-LOG is aware of the call of the station whom you are working, it will automatically put that station’s zone in the Exchange Window. Under normal circumstances, it shows a list of commonly-available country multipliers, and dims the multipliers that you have already worked on the current band, so that you can tell at a glance whether a country is a needed mult. In addition, the program displays the bands on which the station whom you are currently working would be a new multiplier, giving you the chance to try to move that station to a new band if you so desire.

In order to use these features efficiently, however, it is worthwhile spending some time before the contest to make sure that TR-LOG is configured with as much information as possible so that it displays correct information for you in the heat of the contest.

6.18.3.1 The CTY.DAT file

TR-LOG uses a file called CTY.DAT to decide the country and zone of the station that you are working. This is a standard file used by many contest logging programs. It is important to keep your copy of this file up to date. The most recent “standard” release can usually be obtained from <http://www.k1ea.com/cty/>. Note, however, that, as we shall see in a moment, you may not want to use this file as-is (although it is perfectly possible to do so). In addition, when you update TR-LOG, the update procedure will typically ask if you want to overwrite your copy of CTY.DAT. It is usually best to answer N to this question. Tree typically updates the version of CTY.DAT that is distributed with the program relatively infrequently (a couple of times per year) and when he does so, the fact does not appear in the release notes. So you have no easy way of knowing the vintage of the CTY.DAT file that the upgrade procedure is going to use to overwrite your current version.

It is generally best to manage updates of the CTY.DAT file yourself, providing that you feel comfortable using an ASCII editor. There are two reasons for this:

1. Some active stations (especially in the U.S.) are located in a zone that cannot be discerned merely by inspecting the callsign. Although the standard distributed CTY.DAT file lists many of the most active of these stations, allowing TR-LOG to display the correct zone for these stations, you may wish to augment the standard list of such stations with other stations whose actual zone does not match the expected zone displayed

by `TR-LOG` (and which is based on the digit in the callsign for American stations). If you examine `CTY.DAT` with an ASCII editor you will be able to easily discern the way in which additional calls may be added to the file.

2. `TR-LOG` allows you to add a list of “Remaining Multipliers” at the end of the `CTY.DAT` file. This is the list of country mults that is displayed on the screen when you are working the CQ WW contest (and other similar contests). The default list almost certainly contains countries that will be all-but-impossible for you to work, and those countries should be replaced with easier ones for you to work from your QTH; in this way you will have a better feel for any easy multipliers that you may have missed, since they will not be dimmed out on the display.

For more details on how to edit the `CTY.DAT` file (including the “Remaining Multipliers” list), see [section 6.4](#).

6.18.3.2 Multipliers

The default multiplier display is to show the full list from the “Remaining Multipliers” list, with those countries that have been worked on the current band dimmed. However, in the CQ WW contest, CQ zones also act as multipliers. You may toggle between the list of country mults and the list of zone mults by pressing the ALT-G key.

6.18.4 Stew Perry Contest

The only important thing to remember about the Stew Perry contest is to make sure that you enter the `MY GRID` command before starting the contest. Unless you enter this command, `TR-LOG` and `POST` will not know how to score the contest.

If you accidentally run the contest without the `MY GRID` command, then you should make a copy of your log, edit the configuration file to include the correct `MY GRID` statement, then use the `TR READ` command to generate a new `LOG.DAT` file with the correct scoring information.

6.18.5 FISTS

`TR-LOG` currently has no way to treat domestic and DX multipliers differently; this means that your ongoing score is calculated incorrectly in the FISTS contest (`TR-LOG` simply ignores mults when estimating your score). The

Cabrillo output file, however, is correct, and this should enable the contest sponsors to determine your correct score.

6.19 Post-Contest Log Utilities

Now that you have finished a contest, the POST program can provide the functions needed to submit your entry to the organizers. POST can check your log for duplicates, generate a rate sheet, and generate a log with page numbers and totals on each page. It also allows you to generate QSL labels, gives you the ability to generate ARRL-compatible files and dupesheets, shows the geographical distribution of your contacts, and performs other miscellaneous interesting and/or useful functions.

POST, it has to be admitted, is rather cryptic. When you start the program, you will be presented with a menu (Figure 6.7)⁹. From this menu you can change the name of the active log file on which the other POST functions operate (the default filename is LOG.DAT). You can specify a different log file by using the F command from the menu, or by starting the program by typing:

```
POST filename<ENTER>
```

where `filename` is the name of the log file. The other menu choices allow you to create a Cabrillo-format file, to go to the QSL menu, the LOG menu, the REPORT menu, or the UTILITY menu. There is also an option that automatically steps you through the correct sequence of commands needed to prepare a log for submission.

6.19.1 F – Change Log Filename

This allows you to change the name of the file on which POST will perform its operations. The default value is LOG.DAT

6.19.2 C – Create Cabrillo File

The Cabrillo file format is designed to allow stations to submit electronic logs easily via e-mail. For more information on the Cabrillo format, see [subsection 6.21.1](#).

⁹The current version of POST may present a slightly different screen

```

TR POST CONTEST PROGRAM VERSION 6.48

WELCOME TO THE TR POST CONTEST PROGRAM. YOU WILL FIND MANY PROCEDURES AND
UTILITIES HERE TO HELP YOU AFTER THE CONTEST. THERE ARE A NUMBER OF PROCEDURES
UNDER THE LOG PROCEDURES MENU. THESE WILL PERFORM VARIOUS THINGS TO YOUR LOG
FILE. THE QSL PROCEDURES MENU HAS EVERYTHING YOU NEED TO SUPPORT QSLING. THE
REPORT PROCEDURES MENU HAS A NUMBER OF DIFFERENT REPORTS THAT CAN BE GENERATED
AND FINALLY THE UTILITY PROCEDURES MENU HAS A NUMBER OF LITTLE PROGRAMS TO MAKE
YOUR LIFE EASIER. TO GET MORE INFORMATION ON ANY OF THESE, GO INTO THE DESIRED
MENU AND EXECUTE THE PROCEDURE YOU ARE INTERESTED IN. AN EXPLANATION OF THE
PROCEDURE WILL BE DISPLAYED AND YOU WILL ALWAYS BE ABLE TO EXIT THE PROCEDURE
BEFORE ACTUALLY DOING ANYTHING (USE ESCAPE OR RETURN WITH NO INPUT).

FREE MEMORY = 321320

F - CHANGE ACTIVE LOG FILENAME (ACTIVE LOGFILE = LOG.DAT).
C - CREATE CABRILLO FILE.
L - LOG PROCEDURES MENU.
P - POST CONTEST LOG PROCESSOR (STEPS YOU THROUGH MOST EVERYTHING).
Q - QSL PROCEDURES MENU.
R - REPORT PROCEDURES MENU.
U - UTILITY PROCEDURES MENU.
X - EXIT PROGRAM.

ENTER COMMAND :
```

FIGURE 6.7: INITIAL POST SCREEN

6.19.3 L – Log Procedure Menu

This menu contains the basic operations you might want to perform on your log. This includes checking for dupes, verifying multipliers, creating band and mode logs with running totals, creating an ARRL-compatible disk file, and other similar functions.

The Log Procedure Menu is shown in Figure 6.8.

```

LOG PROCEDURE MENU

A - CREATE COPY OF LOG IN THE ARRL SUGGESTED FORMAT.
C - CREATE FINAL LOGS (BY BAND OR MODE AND WITH RUNNING TOTALS).
D - DUPE LOG (MARKS ANY DUPES THAT MAY BE LEFT IN THE LOG).
E - EDIT LOG (SIMPLE LINE EDITOR TO CHANGE SPECIFIC LINES).
F - FILTER LOG (CREATE NEW LOG INCLUDING OR EXCLUDING DESIRED COUNTRIES).
G - MERGE TWO LOG FILES TOGETHER, CHECKING FOR DUPES/MULTS.
J - CREATE LOG CHECK FILE FOR KCJ CONTEST.
M - MULTIPLIER CHECK. COMPLETE CHECK OF ALL MULTIPLIER TYPES.
P - PULL OUT LOG FOR ONE SPECIFIC COMPUTER ID IN A MULTI-MULTI.
V - VIEW LOG SEGMENTS.
X - EXIT LOG PROCEDURE MENU.

Enter command :
```

FIGURE 6.8: LOG PROCEDURE MENU

6.19.3.1 A – Create ARRL Log

Before the Cabrillo file format was defined, the ARRL used to require that logs be submitted in a particular format peculiar to that organisation. This function will create a copy of the current log file in that format. With the advent of the Cabrillo format, you should no longer need to use this command.

6.19.3.2 C – Create Final Logs

This command leads you through the steps necessary to create files that contain the final logs for submission to most contests that do not use the ARRL or Cabrillo formats.

POST asks you a series of questions before creating the files. The names of the files describe their contents; all files have a .DAT extension. For example, the file LALLBOTH.DAT will contain a log for all bands and both modes.

The questions asked by POST are:

1. Separate Logs by Band?
Answer Y if you want the QSOs for each band to be recorded in a separate file; answer N if you want QSOs for each band to be recorded in a single file.
2. Separate Logs by Mode?
Answer Y if you want the QSOs for each mode to be recorded in a separate file; answer N if you want QSOs for each mode to be recorded in a single file.
3. Renumber QSO numbers?
Answer Y if you want the QSOs in each file to be renumbered so that they are consecutive; answer N if you do not want the QSOs to be renumbered.
4. Accumulate QSO points?
Answer Y if you want a running total of QSO points to appear on each page of the log; answer N if you do not want the running total to appear on each page.
5. Accumulate multipliers?
Answer Y if you want a running total of multipliers to appear on each page of the log; answer N if you do not want the running total to appear on each page.

6. Enter number of contacts per page for output:

Provide the number of contacts that you wish to appear on each page of the log. Unless the contest requires otherwise, you might consider entering the value 40, which makes for a reasonable-looking page.

6.19.3.3 D – Dupe Log

This command causes `POST` to scan the log for duplicate contacts, mark them correctly, and assign them zero points. Before it scans the log, `POST` will ask you whether the contest allows you to work stations more than once on the same band if the modes are different, whether you are allowed to work the same station on different bands, and whether you want to save a copy of the duplicate QSOs in a separate file (this is usually a good idea, so that you can easily check whether `POST` has incorrectly marked a QSO as a dupe; it will sometimes do so, since it is not always obvious whether some tricky scenarios are actually dupes).

`POST` tries to be intelligent about marking QSOs in which two QSOs occur with stations whose only difference is a suffix identifier (*i.e.*, `JH1GNU/QRP` is treated the same as `JH1GNU`). However, it may not always make the right response to difficult questions (is `N2IC` the same as `N2IC/5`?) so it is a good idea to check the output of this command if possible.

6.19.3.4 E – Edit Log

`POST` contains a very simple editor that allows you to change specific lines in the log.

The program asks you to enter a string. Pressing `<ENTER>` then causes it to display, one at a time, all the lines in that log that contain the search string. As each line is displayed, it may be edited from the keyboard. Note that the editor works only in “overstrike” mode, not in “insert” mode.

Except in an emergency when you have no such program available, it is usually far more efficient to edit the log with a general-purpose ASCII editing program than to do so with this command.

6.19.3.5 F – Filter Log

Occasionally, you may wish to create a log that contains QSOs only with certain countries (for example, if you, located outside Japan, enter the `JA` International DX contest but make several non-contest QSOs with non-`JA` stations during the course of the contest); alternatively, you may want to create a log from which certain countries are excluded. The `F` command allows you to perform both of these functions.

This command asks whether you want to use the filter to exclude or to include countries; it then asks you to enter representative callsigns for stations in the countries that you want to include or exclude. Enter these callsigns one per line (with each callsign representing a different country), and press <ENTER> without entering a callsign to indicate that you have reached the end of the list. You may enter a maximum of 20 different callsigns in the list. The program identifies the countries associated with the callsigns you have entered, and asks for confirmation before it filters the log.

6.19.3.6 G – Merge two logs

This function allows two logs to be merged. If you want to merge more than two logs, you must apply this function multiple times.

The merging process sorts the QSOs so that they are in the correct date/time order. QSOs that appear in both of the logs being merged will appear only once in the output log.

6.19.3.7 J – Create KCJ check file

The log checkers for the KCJ contest use a check file in a special format. This command creates a check log in the correct format. The KCJ contest still requires entrants to submit a paper log, but if you also send in a disk with a correctly-formatted KCJ check file on it, it saves the checkers from having to enter your log by hand.

6.19.3.8 M – Multiplier check

This menu item performs a complete check of your log for multipliers. It uses the information from your LOGCFG.DAT file (or other configuration file, if more than one is present in the directory) to determine the correct algorithm to use to determine multipliers for the contest in question. Whenever it detects an inconsistency between the multipliers as marked in the log and the multipliers as it believes them to be, POST will prompt you to confirm whether the log should be corrected.

6.19.3.9 P – Extract single-computer log

This menu item allows you to create a log of all the QSOs in a multi-computer log that have been made by a single computer. In order to use this feature, the contest must have been operated with the [COMPUTER ID](#) set to a different value for each computer.

6.19.3.10 V – View Log Segment

This command is well documented by POST itself (albeit with errors in spelling), as shown in [Figure 6.9](#).

```

VIEW LOG SEGMENT PROCEDURE
THIS PROCEDURE ALLOWS YOU TO SEARCH FOR SOMETHING IN THE LOG AND LOOK AT THE
FIRST LOG ENTRY THAT CONTAINS THE SEARCH STRING. IT ALSO SHOWS YOU THE NEXT
SCREEN FULL OF LOG ENTRIES OCCURING AFTERWARDS. YOU CAN THEN INPUT A NEW
SEARCH STRING AND THE PROGRAM WILL CONTINUE FORWARD LOOKING FOR THE NEW SEARCH
STRING. THIS ALLOWS YOU TO FIND A QSO THAT OCCURED AT 06:05 ON THE SECOND DAY.
YOU WOULD FIRST SEARCH FOR THE PROPER DATE, THEN SEARCH FOR 06:. THE SEARCH
IS CASE INSENSITIVE. IF YOU WANT TO CONTINUE AFTER SEEING 20 QSOS WITH THE
NEXT 20 QSOS, USE A SPACE AS YOUR SEARCH STRING.

ENTER STRING TO SEARCH FOR (NONE TO STOP) :
```

FIGURE 6.9: VIEW LOG SEGMENT

6.19.4 P – Post-Contest Log Processor Menu

Choosing this option automates most of the tasks of checking multipliers and dupes, scoring the log, and preparing a log for submission. It is essentially an automated interface to many of the functions available in the Log Procedures (L) menu. For most contests, it is sufficient to run the automatic procedure provided by the POST P menu; for most contests you should not need to use the manual interface provided by the POST L menu.

6.19.5 Q – QSL Procedures Menu

[Figure 6.10](#) shows the QSL Procedures menu. This menu allows you to perform various functions relating to QSLing, as described in the following sections.

```

QSL PROCEDURE MENU

C - Confirm contacts with no labels printed.
E - Estimate number of QSL labels.
O - Print labels, one QSO per label.
S - Print labels for QSOs with a selected station.
T - Print labels, up to three QSOs per label.
V - View log segments.
X - Exit QSL Procedure Menu

Enter command :
```

FIGURE 6.10: QSL PROCEDURES MENU

Each choice displays an explanation of its operation and steps you through the process. There are three different QSL label modes. One will print

a separate label for each contact. Another will print one label per three contacts, with labels sorted by country. The third will print labels for a specific station. The labels are $3\frac{1}{2}$ by $\frac{15}{16}$ inches. Labels that work well with POST are Avery number 6243 or 4013, or Dennison number 42-451-1; these can be found at most volume warehouse stores and discount office stores. 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.

6.19.5.1 C – Confirm contacts

This selection really has little to do with QSLing. It allows you to list the contacts made with particular stations in the current log, and also gives you a chance to correct the name of the station operator in your TRMASTER database. POST allows you to list up to 20 station call signs when it searches the logs for the QSOs.

6.19.5.2 E – Estimate number of labels

POST can produce labels with multiple QSOs per label. This menu item calculates the total number of labels needed to print QSL labels for the entire log file. You tell POST the maximum number of QSOs you wish to appear on a single QSL label, and it will tell you how many labels will be needed to print the log.

6.19.5.3 O – Print labels (one QSO)

This command prints the labels (it can send labels to the screen, the printer, or a file).

POST asks a series of questions that allow you to format and customize the labels, as shown in [Figure 6.11](#). In the screenshot, values entered by the user are rendered in a slanted typeface. Note that the example label shown on the screen is fixed and does not contain data appropriate to the log from which the labels will actually be printed.

6.19.6 S – Print labels for QSOs with particular station

This menu item allows you to print QSL labels similar to those printed with the O command, but only for QSOs with a particular station. This is useful for replying to received QSLs.

```

                                PRINT ONE LABEL FOR EVERY QSO PROCEDURE

This procedure will print a single 15/16 Inch high label for each QSO in the
active log file. The label will look like this:

To: WB6ZVC From: 4U1ITU
-----
Confirming 40SSB QSO at 0000Z
on 25-Dec-90. Your RS was 59
Signature

You can enter up to thirty characters as your signature. This procedure can
only print labels in the same order as they appear in your log. The three
QSO per label procedure can sort labels into alphabetical order.

Enter From:  callsign : N7DR
Enter signature (max 30 chars) : Tnx fer the QSO. 73 -- Doc
You can select how many blank spaces show up in front of each line printed
on your QSL labels. The program used to always put 19 spaces in front of
each line, but now you can select the number.

Enter number of spaces to start each line with : 5
Enter first call or none for first call in log :
Use RSTs from log? (Y/N) : Y
Output to (F)ile, (P)rinter or (S)creen? : P

```

FIGURE 6.11: PRINT QSL LABELS

6.19.6.1 T – Print labels (multiple QSOs)

This command is like the O command, except that POST will print up to three QSOs with the same station on a single label.

6.19.6.2 V – View log segment

This menu item allows you to search for a particular string in the log, and then to display subsequent QSOs. The way that the command works is well described by the rubric in [Figure 6.12](#).

```

                                VIEW LOG SEGMENT PROCEDURE

This procedure allows you to search for something in the log and look at the
first log entry that contains the search string. It also shows you the next
screen full of log entries occurring afterwards. You can then input a new
search string and the program will continue forward looking for the new search
string. This allows you to find a QSO that occurred at 06:05 on the second day.
You would first search for the proper date, then search for 06:. The search
is case insensitive. If you want to continue after seeing 20 QSOs with the
next 20 QSOs, use a space as your search string.

Enter string to search for (none to stop) :

```

FIGURE 6.12: VIEW LOG SEGMENT

6.19.7 Report Menu

This menu (Figure 6.13) allows you to generate several varieties of report of varying degrees of usefulness. The reports include summary sheets, dupesheets, continent distribution charts, rate sheets, and multiplier lists. For most of these reports, POST gives you the option of viewing the report on the screen, sending it to a printer, or saving it to a file.

```

                                REPORT PROCEDURE MENU

B - Band change report.
C - Continent distribution report.
D - Dupe sheet.
E - Show QSOs that were dupes.
L - List Multipliers worked.
M - OH2MM CQ WW report menu.
R - Rate report (hour by hour, band by band summary).
Q - QSO distribution by domestic QTH or zone.
S - Summary sheet.
V - View any notes that are in your log (starting with ;).
W - WPX prefix report.
X - Exit report procedure menu.
Z - Zone report (shows zones that may be wrong in the log).

Enter command :

```

FIGURE 6.13: REPORT MENU

6.19.7.1 B – Band Change Report

This provides a simple listing of when you changed bands, as well as the band from which and to which you moved. The listing also includes the QSO number at which the band change occurred.

6.19.7.2 C – Continent Distribution Report

This provides a report that shows the QTH of the stations worked in the contest. “Continent” is rather a misnomer, since actually the breakdown is not exactly along continental lines because U.S., Canadian and Japanese stations are listed separately.

6.19.7.3 D – Dupe Sheet

The best I can do here is to quote what you will see on the screen if you select this report:

This procedure will generate dupesheets from the active log file.
You can create just one dupesheet that has all your contacts in it,

or make multiple sheets for different bands and/or modes. The sheets can be output to a file, the printer or to the screen. You will be asked if you want the calls sorted by CQ countries. If you answer no, they will be sorted into ARRL countries. Callsigns which the program isn't sure what country they are in are listed at the end of the dupesheet. If you are printing separate sheets for each band or mode, you will be given the chance to print all the dupesheets or just one for a specific band or mode.

Basically, the command allows you to print or display a dupe sheet of selected bands/modes in a couple of different formats.

It is probably worth noting that when you are getting ready to send in an entry, it is a good idea to carefully read the rules for the specific contest to determine whether a dupe sheet is really necessary. Most contest organizers that accept electronic entries no longer require a dupe sheet if the log is submitted electronically or on a disk.

6.19.7.4 E – Show QSOs that were dupes

This simply displays on the screen (or prints, or places in a file) a list of all the QSOs in the log that appear to be dupes. Note that this function does *not* mark the dupes in the log.

6.19.7.5 L – List Multipliers Worked

Produces a list of the multipliers worked in a contest. The list may be either in the order that the mults were worked, or in alphabetical order.

6.19.7.6 M – OH2MM CQ WW Report Menu

This causes a sub-menu, as shown in [Figure 6.14](#), to be displayed. These reports can give interesting (and possibly useful) information about the contest.

6.19.7.7 R – Rate report

Provides an hour-by-hour, band-by-band breakdown of your rate for the contest.

```

                                OH2MM CQ WW REPORT MENU

These reports were originally inspired by OH2MM for the CQ WW contest,
however many of them are also useful for other contests.

C - Multiplier check off sheet
F - First callsigns worked by country by band.
G - First callsigns worked by zone by band.
H - Rate sheet with multipliers and running score.
R - Rate by band by hour report.
T - Total QSOs worked by country by band.
Z - Total Zones worked by zone by band.

Enter desired report (ESCAPE to exit this menu) :

```

FIGURE 6.14: OH2MM REPORTS

6.19.7.8 Q – QSO Distribution

This provides a terse output in three columns. In order, the columns are: Rank, with the most-frequently-worked zone or QTH at the top; the name of the zone or domestic QTH; the number of QSOs with that zone or QTH.

6.19.7.9 S – Summary Sheet

Use this command to produce a summary sheet suitable for including with the contest log entry (either e-mailed or as a hardcopy). The sheet includes the usual items such as the QSO and multiplier breakdown by band, as well as the claimed score. It also includes the important statement that you have operated your station in accordance with the limits laid out in your license.

Remember that some contests, such as those that require or allow Cabrillo format files to be submitted, do not generally require a separate summary sheet.

If a `SUMMARY.DAT` file is available, it will be used as a template for the summary sheet, so that you do not have to fill in your name and address for every contest.

6.19.7.10 V – View Notes

This does exactly what you would expect: it extracts all the notes that you made in the log during the contest (with the `CTRL-N` command) and allows you to display them, print them, or send them to a file.

6.19.7.11 W – WPX Prefix Report

Useful after the CQ WPX contest, this report shows the prefixes in the log on a country-by-country basis. (What it actually does is to list the new mults

on a country-by-country basis, so there may be other contests for which you might find the information provided by this report to be interesting.)

6.19.7.12 Z – Zone Report

This command examines your log and displays a list of the QSOs where the logged zone does not match the zone that POST believes should have been the “correct” zone. Naturally, this is useful only if the contest exchange included the zone. By default, the report uses CQ zones, but the command gives you the option of using ITU zones instead.

6.19.8 Utility Menu

This provides access to several miscellaneous utilities. These include maintaining your TRMASTER database (see [section 6.5](#) for more info), appending log files to history files and the old name editor used by early versions of TR-LOG which allows you to access an old NAMES.CMQ database file.

6.20 Maintaining the TRMASTER Database

POST has many features to help you create, maintain and edit your TRMASTER database. [section 6.5](#) provides details of the different data fields that are contained in the database. The following sections explain many of the operations POST can perform on your database.

POST commands are single-letter abbreviations. For example, 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 sequence would be shown as POST U | E | E in the following subsections.

6.20.1 Converting a CT-compatible MASTER.DTA File to TRMASTER Format

Use the DOS “copy” command to make a copy of your MASTER.DTA file named TRMASTER.DTA (*i.e.*, at the DOS prompt, type COPY MASTER.DTA TRMASTER.DTA). Place this file in the same directory as your POST.EXE file (or in a contest-specific directory). There is no other conversion necessary, as the CT MASTER.DTA file format is a subset of the format that TR-LOG uses in its TRMASTER database file. However, once you add TR-LOG data (other than callsigns) to your TRMASTER.DTA file, you cannot reverse the process.

6.20.2 Convert an Old NAMES.CMQ or NAMES.CMP Database to TRMASTER

This is a good way to create your first database if you do not have a MASTER.DTA file but you do have an old NAMES database as used by older versions of TR-LOG.

1. Enter the old name editor (POST U | N)
2. Save your data to an ASCII file using the F command
3. Use the POST U | E | F | N command to load the file.

6.20.3 Load Data from a LOG.DAT File or an ASCII File

POST has a 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 from the file into the database. If you want to move more than one data field, you will have to execute the procedure 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 whether overwriting is enabled for each data field individually. Use the POST U | E | F | O menu to view and control this overwriting function.

Whenever POST detects that a callsign in the file already exists in the database, POST will increment the Hits counter for that call by one (unless you have turned off the Hits override flag). This count can be used to remove callsigns that only appear in one or two logs. Use the POST U | E | D command to delete these callsigns.

6.20.4 Viewing and Editing TRMASTER Data

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

6.20.5 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 working only with names. This is also the only way to delete a call sign from the database from inside `POST`.

6.21 Generating the Final Log

Here are the steps that you will typically execute in order to generate a final log submission.

1. Make sure your QSOs from `LOG.TMP` are written into `LOG.DAT`

When `TR-LOG` is running, it keeps your log in two files: `LOG.DAT` and `LOG.TMP`. The `LOG.DAT` file contains all but the last five QSOs of your log, and `LOG.TMP` contains those last five QSOs, which are also the QSOs you see in the editable log. If you start `TR-LOG` and see QSOs in the editable log window, then you must execute the `ALT-U` command to flush these QSOs into the `LOG.DAT` file before running `POST`.

2. Check for dupes.

There are several reasons why your log may contain unmarked duplicate QSOs at the end of a contest. You can execute a complete dupe check on your log with the `POST L | D` command. This will clearly mark the dupes in your log.

3. Check your multipliers.

If you edited any of your contacts, you might have changed the multiplier status of some QSOs. `POST` can check your multipliers to make sure they are consistent and correct. Execute `POST L | M` to perform this check.

4. Create a summary sheet

The command `POST R | S` will generate a summary sheet suitable for submission along with your log. You must do this from the same directory in which you operated the contest so that `POST` has access to your `LOGCFG.DAT` file. The summary sheet will be saved in the file `SUMMARY.DAT` if the log is in `LOG.DAT`. If the name of the log file is other than `LOG.DAT`, then the summary file will be created with the `.SUM` extension. You may edit the summary file with an ordinary text editor if necessary.

5. ASCII Log submission

Some contests allow you to send in your log over the Internet as an ASCII mail message. Typically, you just send the summary sheet file (usually `SUMMARY.DAT`) and the log file (usually `LOG.DAT`). Non-Cabrillo ARRL log submissions are in a special format. A separate log in the special ARRL format can be generated with the `POST L | A` command.

There are many other things that `POST` allows you to do with your log. To review them, start `POST` and look at the various menus. As 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 return to the menu by pressing the `<ESC>` key or the `<ENTER>` key with no input.

6.21.1 Cabrillo File Format

N5KO, working in conjunction with interested parties, has produced a file format that attempts to standardise log entries, especially for logs submitted by e-mail. This file format is known as “Cabrillo”; the current version is V2.0¹⁰. The `POST` program allows you to produce files directly in this format, so that they can be e-mailed directly to the contest sponsor. However, please note that at this time some contests do not support the Cabrillo format; please read the rules carefully to determine whether Cabrillo is accepted before trying to generate a Cabrillo file. Also, since Tree has to program the Cabrillo format separately for each contest, if the Cabrillo format is not allowed by the contest sponsor, generating a “Cabrillo” file for that contest not only produces a file that the sponsor will not accept, but it may well produce a file that is missing key items for that contest.

The Cabrillo file format is fully specified on N5KO's web site, at <http://www.kkn.net/~trey/cabrillo/spec.html>. However, we here provide an overview of the format, based (with permission) on the contents of the web page, to help users understand the `POST` output. `POST` produces Cabrillo files with the `.CBR` file extension.

Cabrillo files comprise lines of plain ASCII text, divided into sections of the form:

KEYWORD: value

The list that follows contains the complete list of valid keywords, along with the values they can take, that are recognised by Cabrillo-compliant processing software.

¹⁰This is misleading, though; it appears that numerous changes have been made to the format without incrementing the version number.

START-OF-LOG: version-number

Must be the first line of the log submission. The current version-number is 2.0.

END-OF-LOG:

Must be the last line of the log submission.

ARRL-SECTION: arrl-section

For USA and Canadian stations, arrl-section must be the ARRL section abbreviation as it appears at <http://www.arrl.org/contests/sections.abv.html>. For foreign stations, arrl-section must be the string: DX. This information is required for IARU and for all ARRL contests.

CALLSIGN: callsign

The callsign used during the contest.

**CATEGORY: operator-category band-category power-category
[mode-category]**

For HF contests, the operator-category must be one of:

CHECKLOG
MULTI-MULTI
MULTI-ONE
MULTI-TWO
SCHOOL-CLUB (ARRL-SS-CW¹¹ and ARRL-SS-SSB only)
SINGLE-OP
SINGLE-OP-ASSISTED
SWL

For VHF contests the operator-category must be one of:

CHECKLOG
MULTI-LIMITED
MULTI-UNLIMITED
ROVER
SINGLE-OP

¹¹Throughout this section, we use the Cabrillo designated names for various contests; these generally do not match the name provided in the value of the **CONTEST** parameter that TR-LOG and POST use for the same contest.

SINGLE-OP-PORTABLE
SWL

For HF contests the **band-category** must be one of:

ALL
160M
80M
40M
20M
15M
10M

For VHF contests the **band-category** must be one of:

ALL
LIMITED

The **power-category** must be one of:

HIGH
LOW
QRP

The **mode-category** must be one of:

CW
MIXED
SSB

The **mode-category** is relevant only for single operator entries in multi-mode contests that permit single-mode entries, such as IARU-HF and the ARRL 10 Meter Contest.

CATEGORY-ASSISTED: [assisted-status]

The value or assisted-status must be ASSISTED or NON-ASSISTED and may be specified for any contest.

CATEGORY-DXPEDITION: [dxpedition-status]

The value dxpedition-status must be DXPEDITION or NON-DXPEDITION. This tag applies only to RSGB-IOTA.

CATEGORY-OVERLAY: [category-overlay...]

The category overlay of the log submission when appropriate. In CQ-WPX CW and CQ-WPX-SSB, category overlay may be any combination of ROOKIE, BAND-LIMITED, TB-WIRES. In STEW-PERRY, category overlay may be OVER-50. In IARU-HF, category overlay may be HQ.

CATEGORY-TIME: time-category

The time category is only applicable to the RSGB IOTA Contest and must be either 12-HOURS or 24-HOURS.

CLAIMED-SCORE: n

The claimed-score of the log submission in integer form. For example: 1217315; 19113 or 12.

CLUB: text

Name of the radio club with which the score should be aggregated.

CONTEST: contest-name

The contest-name must be one of the following: AP-SPRINT, ARRL-10, ARRL-160, ARRL-DX-CW, ARRL-DX-SSB, ARRL-SS-CW, ARRL-SS-SSB, ARRL-UHF-AUG, ARRL-VHF-JAN, ARRL-VHF-JUN, ARRL-VHF-SEP, ARRL-RTTY, BARTG-RTTY, CQ-160-CW, CQ-160-SSB, CQ-WPX-CW, CQ-WPX-RTTY, CQ-WPX-SSB, CQ-VHF, CQ-WW-CW, CQ-WW-RTTY, CQ-WW-SSB, DARC-WAEDC-CW, DARC-WAEDC-RTTY, DARC-WAEDC-SSB, IARU-HF, JIDX-CW, JIDX-SSB, NAQP-CW, NAQP-RTTY, NAQP-SSB, NA-SPRINT-CW, NA-SPRINT-SSB, NEQP, OCEANIA-DX-CW, OCEANIA-DX-SSB, RSGB-IOTA, SAC-CW, SAC-SSB, STEW-PERRY or TARA-RTTY.

CREATED-BY: text

Name and version of the logging program used to create the Cabrillo file.

IOTA-ISLAND-NAME: text

This tag is only applicable to the RSGB-IOTA contest and should be specified by island stations to indicate the name of the island they operated from (not the IOTA reference number).

NAME: text

Your name

ADDRESS: text

Your address.

OPERATORS: `callsign1 [callsign2 callsign3...]`

A space-delimited list of operator callsign(s). You may also list the callsign of the host station by placing an @ character in front of the callsign within the operator list.

OFFTIME: `begin-time end-time`

This tag is used to indicate off-time that must be claimed by single operators in the WAE contest.

```

                -----begin----- -----end-----
OFFTIME: date      time date      time
OFFTIME: yyyy-mm-dd nnnn yyyy-mm-dd nnnn
OFFTIME: 2002-03-22 0300 2002-03-22 0743
00000000011111111112222222222333333333334
1234567890123456789012345678901234567890

```

SOAPBOX: `text`

Soapbox comments.

QSO: `qso-data`

QSO data as specified by the Cabrillo format QSO data format. Each contest sponsor provides a template for the QSO format for that particular contest. The lines starting with the QSO keyword contain log entries formatted according to the template for that contest.

6.21.1.1 Cabrillo QSO templates

The QSO templates that are currently defined are given in the following subsections. The meaning of the fields is as follows:

freq:

For HF: integer frequency in kHz; if freq not known then 28000, 21000, 14000, 7000, 3500, 1800

For VHF/UHF; Single Character band representations as follows: 50 MHz=50, 144 MHz=144, 222 MHz=222, 432 MHz=432, 902 MHz=902, 1296 MHz=1.2, 2304 MHz=2.3, 3456 MHz=3.4, 5760 MHz=5.7, 10 GHz=10, 24 GHz=24, 47 GHz=47, 75 GHz=75, 119 GHz=119, 142 GHz=142, 241 GHz=241, 300 GHz=300, and Light=LIGHT

mo:

CW, PH, FM or RY

date:

UTC date in the form: yyyy-mm-dd

time:

UTC time in the form: nnnn

call:

callsign

rst:

RS or RST

exch:

contest exchange

t:

transmitter identifier 0 or 1 (used in the multi-two category)

nr:

Serial number; omitted in NAQP (field must be blank)

ex1:

Name in NA Sprint and NAQP; QTH in California QSO Party

ex2:

QTH in NA Sprint and NAQP; USA and Canada stations use two letter postal code abbreviation, foreign stations use QTH. Also used to hold the IOTA number in the form **aa-*nnn*** for island stations, or **-----** otherwise.

prec:

Sweepstakes precedence: A, B, M, Q, S or U

ck:

Two digit Sweepstakes check

sec:

ARRL Section abbreviation

6.21.1.2 Sweepstakes

```

-----info sent----- -----info rcvd-----
QSO: freq mo date      time call      nr  p ck sec call      nr  p ck sec
QSO: ***** ** yyyy-mm-dd nnnn ***** nnnn a nn aaa ***** nnnn a nn aaa
QSO: 21042 CW 1997-11-01 2102 N5KO      3   B 74 STX K9ZO      2   A 69 IL
000000000111111111122222222233333333334444444445555555556666666667777777777
123456789012345678901234567890123456789012345678901234567890123456789

```

6.21.1.3 Other ARRL and CQ contests, and the Stew Perry contest

```

-----info sent----- -----info rcvd-----
QSO: freq mo date      time call      rst exch  call      rst exch  t
QSO: ***** ** yyyy-mm-dd nnnn ***** nnn ***** ***** nnn ***** n
QSO: 3799  PH 1999-03-06 0711 HC8N      59 700    W1AW      59 CT     0
0000000001111111111222222222333333333344444444455555555566666666677777777788
12345678901234567890123456789012345678901234567890123456789012345678901

```

6.21.1.4 NAQP, NA Sprint and California QSO Party

```

-----info sent----- -----info rcvd-----
QSO: freq mo date      time call      nr  ex1      ex2 call      nr  ex1      ex2 t
QSO: ***** ** yyyy-mm-dd nnnn ***** nnnn aaaaaaaaaaaa aaa ***** nnnn aaaaaaaaaaaa aaa n
QSO: 14042 CW 1999-09-05 0000 N5TJ      1   JEFF      TX N6TR      1   TREE      OR
0000000001111111111222222222333333333344444444455555555566666666677777777778888888889999
1234567890123456789012345678901234567890123456789012345678901234567890123

```

6.21.1.5 Example Cabrillo Files

```

START-OF-LOG: 2.0
ARRL-SECTION: SCV
CONTEST: ARRL-SS-CW
CALLSIGN: N5KO
CATEGORY: MULTI-ONE ALL HIGH
CLAIMED-SCORE: 160
OPERATORS: N5KO K6AW
CLUB: Northern California Contest Club
NAME: Trey Garlough
ADDRESS: 7375 Oak Ridge Road
ADDRESS: Aptos, CA 95003
ADDRESS: USA
SOAPBOX: The ARRL November Sweepstakes is my favorite contest.  It really
SOAPBOX: is fun to get on and try to make a clean sweep.

QSO: 21042 CW 1997-11-01 2101 N5KO          1 B 74 SCV WA2VRR          1 A 74 VA
QSO: 21042 CW 1997-11-01 2102 N5KO          2 B 74 SCV NJ2L           2 B 81 WNY
QSO: 21042 CW 1997-11-01 2102 N5KO          3 B 74 SCV K9ZD           2 A 69 IL
QSO: 21042 CW 1997-11-01 2103 N5KO          4 B 74 SCV K7QQ           3 A 62 IL
QSO: 21042 CW 1997-11-01 2103 N5KO          5 B 74 SCV W4YE           5 A 74 VA
QSO: 21042 CW 1997-11-01 2104 N5KO          6 B 74 SCV K3SV           3 B 71 EPA
QSO: 21042 CW 1997-11-01 2105 N5KO          7 B 74 SCV K2GS           3 A 89 ENY
QSO: 21042 CW 1997-11-01 2106 N5KO          8 B 74 SCV KX1E           3 A 56 ME
QSO: 21042 CW 1997-11-01 2106 N5KO          9 B 74 SCV NOEID          2 Q 82 MO
QSO: 21042 CW 1997-11-01 2107 N5KO         10 B 74 SCV N4AF           12 B 58 NC

[many QSOs omitted]
END-OF-LOG:

```

FIGURE 6.15: SS CABRILLO FILE

```

START-OF-LOG: 2.0
ARRL-SECTION: DX
CONTEST: ARRL-DX-SSB
CALLSIGN: HC8N
CATEGORY: MULTI-TWO ALL HIGH
CLAIMED-SCORE: 8123171
OPERATORS: N5KO K6AW W4ZV
CLUB: Northern California Contest Club
NAME: Trey Garlough
ADDRESS: Calle Isabela
ADDRESS: Pto. Baquerizo Moreno
ADDRESS: Islas Galapagos
ADDRESS: Ecuador
SOAPBOX: New QTH is working great!
QSO: 21303 PH 1999-03-06 0000 HC8N          59 700 K9NS                59 IL          1 QSO:
21303 PH 1999-03-06 0000 HC8N          59 700 W3EEE
59 PA          1 QSO: 21303 PH 1999-03-06 0000 HC8N          59 700 K3LR          59 PA
1 QSO: 28495 PH 1999-03-06 0000 HC8N          59 700 W8QZA
59 CA          0 QSO: 21303 PH 1999-03-06 0000 HC8N          59 700 N8II          59
WV          1 QSO: 21303 PH 1999-03-06 0000 HC8N          59 700 K1XM          59 MA
1 QSO: 21303 PH 1999-03-06 0001 HC8N          59 700 K1A0          59 KY          1
QSO: 21303 PH 1999-03-06 0001 HC8N          59 700 KM00          59 MN          1
QSO: 28495 PH 1999-03-06 0001 HC8N          59 700 KQ6ES          59 CA          0
QSO: 21303 PH 1999-03-06 0001 HC8N          59 700 WA2DES          59 NY          1
QSO: 28495 PH 1999-03-06 0001 HC8N          59 700 N7MAL          59 AZ          0
QSO: 21303 PH 1999-03-06 0001 HC8N          59 700 N0YY          59 IA          1
QSO: 21303 PH 1999-03-06 0002 HC8N          59 700 W1GD          59 NJ          1

[many QSOs omitted]
END-OF-LOG:

```

FIGURE 6.16: ARRL DX CABRILLO FILE

TR-LOG 6.79

Chapter 7

Troubleshooting Guide

7.1 Frequently Asked Questions

This section has solutions to some common problems. If you are still experiencing difficulty with the software after reading this section, please feel free to give Tree or your distributor a call, or send e-mail. Note also that the TR-LOG reflector is an excellent place to get help (see [section 8.1](#) for more information).

TR-LOG crashed, and it is confused when I try to restart it.

Try the following sequence:

1. Perform a clean boot (*i.e.*, power down the computer, wait a few seconds and then power up.)
2. Go to whichever was your current directory at the time of the crash.
3. Before starting TR-LOG, delete the `RESTART.BIN` and `BANDMAP.BIN` files if they exist (or, perhaps even better, rename them to something innocuous like `RESTART.BAD` and `BANDMAP.BAD`; then they will be available to Tree if he needs them).
4. Restart TR-LOG. This should get you working again, although some of the history that the program normally uses during a contest will no longer be available.

The cursor keys don't work properly.

Try changing the setting for [USE BIOS KEY CALLS](#). Typically, this problem occurs when you have [USE BIOS KEY CALLS](#) set to FALSE when your particular computer needs to have it set TRUE.

The program stops executing before initializing.

When this happens, there will usually be an error code displayed. Check [section 7.2](#) to see what the error code means. In most cases, the program halts because insufficient memory is available. Make sure that your memory is not being consumed by any Terminate-And-Stay-Resident programs and that you are not running the program from the DOS shell of another program. You might also be able to free some memory by running the `MEMMAKER` program provided with DOS.

The keying interface does not work.

The keying interface is disabled when using the simulator.

The paddle interface just sends dits or di-dah-di-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 10 k Ω 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.

My serial interface for packet or the rig doesn't work.

You may need to use a 3-wire cable to connect your TNC to your serial port, with the RTS and CTS lines connected together on the TNC or rig side of the cable. `TR-LOG` does not assert the RTS or CTS signals so that they can still be used for CW and PTT control. Some TNCs and rigs need to have these signals asserted in order to send data to the computer. [Appendix B](#) shows the pin numbers that need to be jumpered to do this.

The serial interface for the rig or the keyboard is unreliable.

When `USE BIOS KEY CALLS` is `TRUE`, it takes longer for the software to poll the keyboard to determine whether a key has been pressed. It also takes longer to read information from the rig. If one of these interfaces seems to be unreliable, try setting `USE BIOS CALLS` to `FALSE`; or, in the alternative, try a slower baud rate.

As an ultimate fix if the problem seems to be that the rig is not responding properly to the program's attempts to poll it, you can set `POLL RADIO ONE` or `POLL RADIO TWO` to `FALSE`.

Most or all of the time, the program is not correctly reading the frequency from my rig.

There is a feature in the program that will record all the data coming back from the rig. These data can be used by `N6TR` to try to understand the cause of the problem. To enable recording, start the program by typing `TR RADIODEBUG`. 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 that you send it as an attachment.

This problem may also be caused by the hardware handshaking signals RTS/CTS. `TR-LOG` does not need these signals — which allows the same serial port to be used for both the radio interface and the CW interface. However, your interface may require that you tie RTS to CTS in order for your rig 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 type of rig that you are using, with the `ICOM RESPONSE TIMEOUT`, `JST RESPONSE TIMEOUT`, `KENWOOD RESPONSE TIMEOUT` or `YAESU RESPONSE TIMEOUT` command as appropriate. These parameters can all be changed using the `CTRL-J` command.

If you are using an Icom or Ten-Tec rig, make sure that you have specified the correct `RECEIVER ADDRESS`. This number must be in base 10, *not* base 16.

Occasionally, the program is not correctly reading the frequency from my rig.

Some radios occasionally send incomplete messages to the computer. If you have occasional problems with strange frequency or band values, try setting `FILTER RADIO MESSAGE LENGTH` to `TRUE`.

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 `<ESC>` key to exit. When testing a multi network, you should see your keystrokes echoed on the next computer in the loop.

How do I display remaining zones instead of remaining countries?

Use the `ALT-G` command to cycle between the different available displays of remaining multipliers.

Can I use SMARTDRV with TR-LOG?

Some users have noted that the amount of time taken to write the log to disk, and especially when writing to a floppy, may be inconveniently long. By using a disk-caching program such as `SMARTDRV`, this time may be reduced so that there is no noticeable pause in operation. Some users on the `TR-LOG` reflector have suggested that the following command should be placed in the system `CONFIG.SYS` file:

```
LH c:\dos\smartdrv.exe a+ c+
```

However, the author cannot recommend this practice (since he has known disks to be completely corrupted by using the write-cache facility in SMARTDRV). If you choose to use SMARTDRV or a similar program, remember that you do so at your own risk.

I am using a Kenwood rig and the frequency display disappears when I tune the rig continuously.

Some Kenwood rigs do not respond to frequency requests when they are being tuned. When you stop tuning, the frequency display should reappear. You can increase the [KENWOOD RESPONSE TIMEOUT](#) if this bothers you. However, increasing this will slow down the program if your radio is off. This can be fixed by disabling polling in the CTRL-J menu.

POST crashes/misbehaves when managing my TRMASTER database.

Most likely, you don't have a sufficiently high value of FILES in your CONFIG.SYS file. Make sure that this value is *at least* 20. You might need to increase it to as much as 40. Only if POST still fails after you have set FILES to 40 should you contact Tree to report the problem.

TR-LOG crashes/misbehaves when changing CW speed or when paging through the ctrl-J menu.

You may not have enough internal DOS stacks, or they may be too small. Take a look at the STACKS command in your CONFIG.SYS file. The format of the STACKS command is:

$$\text{STACKS} = n, s$$

where n is the number of stacks, and s is the size (in bytes) of each stack. Try setting

$$\text{STACKS} = 18, 512$$

if the numbers in your CONFIG.SYS file are smaller than these numbers (or if the command is completely missing).

7.2 Runtime Error Codes

Some errors can cause TR-LOG to stop executing. Many of these (very rare) errors provide no explanation other than an error number. These error numbers are given in [Table 7.1](#).

TR-LOG 6.79

Error Number	Meaning
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
203	Heap overflow
208	Overlay manager not installed
209	Overlay file read error

TABLE 7.1: ERROR CODES

If an error halts the program, you *must* reboot your computer by either pressing CTRL-ALT-DELETE, pressing a reset button (if one exists on your computer), or cycling the power on the computer. If you do not do this, your computer may hang, or your system clock might operate incorrectly.

If you receive an error code when starting TR-LOG, make sure you have no Terminate-and-Stay-Resident (TSR) programs installed. These can use up large portions of your memory, leaving insufficient room for TR-LOG to execute.

7.3 Command Line Options

There are several command line options with which you can start TR-LOG. These enable various special modes or utilities. To enter one of these commands, type TR, followed by a space and the command name. In some cases, you will also need to type in a filename after the command (*e.g.*, typing

```
TR SENDCW TESTCW.TXT.
```

causes TR-LOG to send the contents of the file TESTCW.TXT as CW.

?

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

B64DECODE

Converts a file that has been encoded using BASE64 to a binary file.

BANDMAP

Inserts 10 entries into the bandmap when the program starts up, for diagnostic and/or demonstration purposes. Some of the entries will contain QSO information.

COAX

Determines the electrical length of coax given two consecutive low-SWR frequencies.

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 (*e.g.*, CQ WW) and also turn off [AUTO DUPE ENABLE CQ](#) so that working a dupe won't cause the process to hang.

This feature will cause the program to go through the motions of working many stations for testing or demonstration purposes. For maximum rate, set **CW TONE** to 0. Pressing any key after starting **TR-LOG** in this mode will stop the debug process. You can restart it by typing **DEBUG** in the Call Window and pressing **<ENTER>**. Note that the band will change occasionally, to ensure that all of your contacts are not on the same band.

DISTANCE

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

FINDFILE

The **FINDFILE** start command will search for the filename specified using the same process for locating files that **TR-LOG** would use. For example, if you try **TR FINDFILE TRMASTER.DTA**, it will identify the directory from which the **TRMASTER.DTA** file would be loaded. 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 a six-digit grid square. This can be used to calculate the proper value for the **MY GRID** and **GRID MAP CENTER** commands.

HELP

Shows a list of all the command-line options.

HEXCONVERT

Allows you to convert between hex and decimal numbers. Identify numbers as hex by appending an H.

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 displayed. You can move around using the Page-Up and Page-Down keys, jump to the end or beginning of the file, or search for a specific data string. This utility is handy for examining **.DBG** files generated by the **RADIODEBUG** and

TALKDEBUG command-line options. Pressing the escape key will cause the program to exit.

HP

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

IOPORT

Allows you to assign specific values in the various I/O port addresses; also has a loopback mode. Exit with CTRL-BREAK.

KEYCODE

As you press keys on the keyboard, TR-LOG will display the keycode for the pressed key. This allows you to see what the keystroke is telling TR-LOG even in the case where more than one key produces the same output on the screen.

LC

If you are using an antenna analyzer for measuring capacitance or inductance, there is a formula¹— that can be used to calculate one from the other when you have found the resonant frequency. TR-LOG can perform this calculation for you when you enter 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. This command 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 maintained showing the entries in the “message sent” buffer that have not yet been acknowledged.

NEW

Presents you with a menu from which you may select a new contest. Prompts you for a name for the contest files.

¹ $f = 1/(2\pi\sqrt{LC})$

PACKET

Places ten entries into the packet spot display (normally made visible with the CTRL-U command) for diagnostic or demonstration purposes. Some of the entries will include QSX information.

PACKETFILE

Requires a filename to be specified. The program will read the file and treat the contents as if they were 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.

PACKETINPUTFILE

Requires the name of a file containing packet spots. Spots are loaded from the file at the rate of two per second. They are passed around to the network exactly as if they had been received from a TNC. Included with the TR-LOG distribution is a file called `PACKET.ZIP`, which contains a month of packet data in zipped format. The format of the unzipped data is the same as that generated by the [PACKET LOG FILENAME](#) command.

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 are passed directly through to the other, and *vice versa*.

PORT

Displays the I/O port addresses at which TR-LOG thinks your serial and parallel ports are located, as shown in [Figure 7.1](#).

PORTTOFILE

Takes input from a serial port and saves it in a file.

RADIODEBUG

Puts the program in a mode that 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 communicating with TR-LOG correctly.

IO PORT ADDRESS TABLE	
Here are the addresses found for the various I/O ports. These addresses are found in a table located in RAM starting at 40:0. Your BIOS should be initializing the values for you. If TR finds no value in the table, it will use the "industry standard" I/O address for that port (as shown).	
COM1 = \$0000	Program will use \$03F8
COM2 = \$0000	Program will use \$02F8
COM3 = \$0000	Program will use \$03E8
COM4 = \$0000	Program will use \$02E8
LPT1 = \$0378	
LPT2 = \$0000	Program will use \$0278
LPT3 = \$0000	Program will use \$0378

FIGURE 7.1: I/O PORT ADDRESSES

READ

Requires a filename to be specified. The file must be a `TR-LOG .DAT` file, but must have a name different from `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.

Before using the `TR READ` command, it is a good idea to delete any `LOG.DAT` file that exists in the current directory, since the `TR READ` command will append output to the file if it already exists. In the configuration file, you should also:

1. Set `CW ENABLE` to `FALSE`
2. Set `CW TONE` to `0`
3. Set `SIMULATOR ENABLE` to `FALSE`

If `TR-LOG` stops reading the input file before reaching the end, this indicates that there is a problem with the record in the file that is currently displayed. You should find the problem and fix it, then re-execute the `TR READ` command.

RESCORE

This command is provided to help to score those contests in which it is difficult to check multipliers correctly. It can also be used as a replacement for the `READ` command line option, to re-score a contest. Like the `POST` multiplier check option, `TR RESCORE` will save the current log file to `PLOGxxx.BAK` and use that to rerun the contest and create a

new log file. When this command executes, `CODE SPEED` is set to 99, `CW TONE` is set to zero, and `AUTO DUPE ENABLE CQ` and `AUTO DUPE ENABLE S AND P` are set to FALSE². Exit the program as you normally would when the log has been read. At this point you can continue as usual with `POST`.

SENDCW

Requires a filename to be specified. This command causes the program to send the characters found in the named file on CW. The Page-Up and Page-Down keys can be used to vary the CW speed. This feature is useful to people wanting to make error-free CW tapes.

SLOW

Reduces the frequency of real time interrupts that 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, so that you might not notice a difference in the speed of CW when changing the code speed by small amounts.

TALKDEBUG

This is similar to the `RADIODEBUG` command line option. 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 you are 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.

UNIXTIME

Converts a UNIX time to year, month, day, hour, minute and second, or *vice-versa*.

UUDECODE

Converts a uuencoded ASCII file to a binary file.

²In the current implementation of this command, if you hit a key while the program is running, then it will stop .

VIEWRADIODEBUG

Allows you to view the contents of a `RADIO.DBG` file created with the startup command `TR RADIODEBUG`, using the same algorithm that the program would use if it was interfaced to the rig. In other words, the program takes the contents of the `RADIO.DBG` file and treats it as if it were a sequence of instructions received from the rig.

Chapter 8

Program Updates

TR-LOG is constantly being updated to add new features. It is strongly suggested that you keep current with the latest version so you can take advantage of these changes (and any bugfixes). You are eligible for free updates for one year after your 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 to keep those new features coming. The more contributions Tree receives, the easier it is for him to convince his wife that enhancing the program is worthwhile.

There are two ways to receive updates:

- As e-mail attachments over the Internet;
- On disk from your distributor.

8.1 Updates over the Internet

Most users these days obtain their updates automatically over the Internet in the form of an e-mail message as soon as each release is available. The update (which usually contains a complete replacement distribution of the entire suite of programs and files) is zipped and sent as an ordinary e-mail attachment.

The length of the attachment is usually about 700 kilobytes, so you need to be able to handle files of this size to take advantage of this service. To be added to the distribution list for updates, send your request to the person from whom you purchased the program.

A good way to keep up to date on new releases and to learn about planned changes 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** in the body of the e-mail message. Once you are subscribed, you can send a message to the reflector itself by mailing your message to trlog@contesting.com. The reflector is an excellent place to get technical support from experienced users or the program author and sales staff. Even the author of the manual has been known to haunt the reflector and to respond to requests for improvements to the manual.

You can access messages that have been posted to the reflector in the past by going to http://www.contesting.com/_trlog/, which contains a hypermail summary that provides an easy way to find old messages.

While you're online, check out the Contesting On-Line site at <http://www.contesting.com>; there you can find a pictorial tour of N6TR and other contest stations.

TR-LOG also has its own web site, at <http://www.trlog.com>. The site contains information useful to users of TR-LOG as well as items such as the Public Domain version of the program (which is fully functional, but rather dated) and the latest release of the manual in PDF format.

8.2 Updates on Disk

If you cannot obtain updates over the Internet, you can request a new disk from your distributor. There will be a small charge for this service, to cover postage and handling. You can also obtain the latest version of the manual for a fee from your distributor. (The manual is now sufficiently extensive that this fee may be non-negligible, due to the cost of printing and mailing.)

Chapter 9

Recent Release Notes

The following are the release notes, verbatim, for the most recent few versions.

Version 6.79 - 22 November 2003

- Made ActiveBand and ActiveMode only get updated from radio frequency information if not NoBand and NoMode.
- Fixed bug with CQ on RadioTwo being inserted into the bandmap on RadioOne's frequency.
- Fixed > character not working on SSB.
- Added KeyCode startup command - will display the key code information for keys on the keyboard as you type them. This is used to understand how to tell keys apart that give the same ASCII result.

Version 6.78 - 23 October 2003

- This is a TR only release that fixes a small bandmap bug. If you are trying to grab a spot in the band map that is for the band that the inactive radio, previous versions would send that spot to the inactive radio.
- This version checks to make sure the active radio isn't on that same band, and if so, will send the spot to the active radio.
- This fixes a bug where 160 meter spots were not working correctly with only one radio hooked up - since the "inactive radio" comes up on 160 meters.

Version 6.77 - 22 October 2003

- Added new method for detecting incomplete messages from the radio. Made this an option by using the "FILTER RADIO MESSAGE LENGTH" parameter (control-J) with the default set to FALSE. You might turn this on if you are having pccasional problems with strange frequency or band results from your radio interface.
- Fixed packet spot frequency not using current radio frequency.

Version 6.76 - 20 October 2003

- Fixed incorrect time on logged QSO when using HOUR OFFSET <> 0.
- Many K1EA network enhancements:
 - Added support for packet commands. TR can even be running on the computer the TNC is hooked up to if you want.
 - Added support for bandmap commands.
 - Do not pass note log entries (Alt-N) to the network.
 - Fixed K1EA STATION ID in config file (was STATION ID).
 - Added support for K1EA pass and run frequency display in multi info display. This display is shown either at the bottom of the bandmap or in the editable log window when you press Control-E.
 - Implemented PASSFREQ command by typing in \PASSFREQ in the call window. Allows you to enter the frequency you want multipliers passed to. Run frequency gets sent automatically when pressing F1 or F2 in CQ mode.
 - If using K1EA network, Alt-D will allow you to pass a station.

Version 6.75 - 12 October 2003

- Added ORION Radio type. It mostly works. I have sort of implemented the RIT SHIFT keys by moving the RIT to fixed values of -200 or +200 when the left or right shift key is pressed.
- Fixed up ARRLSECT.DOM with NT for the VE8/VY1 section name. Note that you will now have to enter NTEX or NTX for the North Texas section.

- Minor changes to CALQSOW6.DOM to allow MARN and SCV to show up in Marin and Santa Clara counties. Same for SCV in CALCTY.DOM.
- Removed LEGACY RADIO IO MODE. The program should now work fine without it. Please report any radio control issues that you see with this version. There might be some slight performance degradation with Kenwood radios. Also note that the frequency display on Kenwoods will disappear if you are continuously tuning the radio. This is because the radio will not respond to frequency requests while it is being tuned. When you stop tuning, the frequency display should reappear. You can increase the KENWOOD RESPONSE TIMEOUT if this bothers you. However, increasing this will slow down the program if your radio is off. This can be fixed by disabling polling in the Control-J menu.
- Added 19200 and 57600 baud support to the loopback test (TR LOOPBACK).
- Added SENT ALT-D SPOTS TO PACKET (control-J, default = FALSE). When you use Alt-D to do a dupe check on the second radio, the program will automatically generate a packet spot.
- Replaced FREQUENCY ADDER with FREQUENCY ADDER RADIO ONE and FREQUENCY ADDER RADIO TWO. The old FREQUENCY ADDER command will set both radios to the same frequency adder.
- Added ALT-D BUFFER ENABLE parameter (control-J - default = FALSE) to control Alt-D buffer feature added in 6.73.
- Added UNIXTIME start-up command. Allows you to enter integer UNIX time and get year, month, day, hour, minute, second, or vis-a-versa.
- Added K1EA STATION ID - which is a character used to identify the computer on the K1EA network.
- Added K1EA NETWORK ENABLE (default false - control-J) which makes TR talk K1EAish on the network port. This supports logging, chat and time sync (receive only). Packet and other commands to be added soon. If you can hook up packet to CT, start TR with NETDEBUG and after receiving some spots send me the NETIN.BIN file, it will help me get the packet stuff added.

Version 6.74 - Released 31-Aug-03

- Added LEGACY RADIO IO MODE (available on Control-J - initial value = FALSE). When TRUE, this backs out some of the recent changes made to the Icom and Omni-VI radio communication. It should work the same as versions before about 6.69.
- Added WAE Cabrillo support. Also made 4 digit time get logged

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in WAE files even if using QTC MINUTES.

- Made IARU and CQ contests ask for ARRL section if in W/VE for Cabrillo.
- Fixed problem with exchange window and bandmap - only being able to enter one letter.
- Fixed simulator in FD not sending sections.
- Added REGION ONE FIELD DAY to Cabrillo - using same template as WPX.

Appendix A

LOGCFG.DAT Commands

This appendix contains an alphabetical listing of all the commands that may be placed in a LOGCFG.DAT file.

Commands that may be accessed by pressing CTRL-J during operation of TR-LOG are marked appropriately.

ADD DOMESTIC COUNTRY

Values: Valid country ID

Default: None

When TR-LOG is treating some countries as domestic multipliers and the rest of the countries differently, you can add countries to the list of those that are being processed as 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 IDs you add match the ones in your CTY.DAT file.

ALL CW MESSAGES CHAINABLE

Values: TRUE or FALSE

Default: FALSE

CTRL-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 will not start until the old one is complete. You can also do this for selected CW messages by placing a CTRL-D at the start of the message.

ALT-D BUFFER ENABLE

Values: TRUE or FALSE

Default: FALSE

CTRL-J

This command controls whether the ALT-D buffer is enabled. When this flag is enabled, TR-LOG obtains calls and frequencies from the bandmap when performing a dupecheck on the second radio.

ALWAYS CALL BLIND CQ

Values: TRUE or FALSE

Default: FALSE

CTRL-J

This function is principally designed to be useful in contests like the Sprint when you are using TR-LOG with two rigs. In such a situation, you often want to send a CQ on the other rig while you are receiving the exchange from the station to whom you are about to cede the frequency. Normally you do this by pressing F7 or F8, which by default sends CQ on the inactive rig. Setting the ALWAYS CALL BLIND CQ function to TRUE causes that CQ to occur automatically as soon as the CQ EXCHANGE has been sent. (It sends whatever message is stored in Exchange memory F7.)

Note that this does force you to be ready for that CQ by finding a clear frequency in time for it to be sent.

ASK FOR FREQUENCIES

Values: TRUE or FALSE

Default: TRUE

CTRL-J

When using the bandmap or submitting packet spots in an environment in which you do not have a radio that communicates with TR-LOG, the program will normally ask you for the frequency of stations as you perform dupe checks. Setting this parameter to FALSE will stop TR-LOG from asking you for these frequencies.

ASK IF CONTEST OVER

Values: TRUE or FALSE

Default: TRUE

CTRL-J

TR-LOG asks whether the contest is over if and only if this parameter is TRUE when you exit the program. If you answer in the affirmative, the last

five QSOs in the editable log will be appended to your LOG.DAT file. This has the same effect as pressing CTRL-U.

AUTO CALL TERMINATE

Values: TRUE or FALSE

Default: FALSE

CTRL-J

When you are on CW and this parameter is TRUE, TR-LOG 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](#) commands, TR-LOG will assume that a call is complete when all the characters entered in the Call Window have been transmitted.

For example, assume that 4U1ITU has answered your CQ. If you press the key identified by the [START SENDING NOW KEY](#) command after entering 4U1I, the program will start to send 4U1I. If you enter one or more additional characters before it completes sending, TR-LOG will send those characters as well. If there are no new characters to send, it will automatically send the [CQ EXCHANGE](#).

TR-LOG works the same way if the [AUTO SEND CHARACTER COUNT](#) function causes the program to start sending the callsign. In this case, it is possible to respond to a station by using the same number of keystrokes that are in its callsign (*i.e.*, no additional keystrokes at all are necessary).

AUTO DISPLAY DUPE QSO

Values: TRUE or FALSE

Default: FALSE

CTRL-J

When you are working a duplicate QSO in CQ Mode and this parameter is TRUE, TR-LOG will automatically show you the log entries for the previous QSO(s) with that station. This command is non-functional if you set [AUTO DUPE ENABLE CQ](#) to FALSE.

AUTO DUPE ENABLE CQ

Values: TRUE or FALSE

Default: TRUE

CTRL-J

If this parameter is TRUE, a dupe who calls you when you are CQing will be sent the [QSO BEFORE MESSAGE](#) instead of the regular exchange. If the parameter is set to FALSE, the normal exchange will be sent and the

contact will be logged with zero QSO points. It is useful to set this parameter to FALSE when entering a log by hand after a contest.

AUTO DUPE ENABLE S AND P

Values: TRUE or FALSE

Default: TRUE

CTRL-J

If this parameter is TRUE, when you try to call a dupe with the <ENTER> key in S&P Mode, TR-LOG will refuse to call the station. You might want to set this parameter to FALSE in contests like the Internet Sprint, in which you often call the same station on the same band and mode several times during the contest.

AUTO QSL INTERVAL

Values: Integer

Default: 0

CTRL-J

Normally when you press <ENTER> to log a QSO, the [QSL MESSAGE](#) is transmitted. The AUTO QSL INTERVAL command can be used to send the [QUICK QSL MESSAGE](#) instead, except that once every AUTO QSL INTERVAL QSOs, the [QSL MESSAGE](#) is transmitted instead.

This is typically 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, in which case the [QSL MESSAGE](#) is sent at the end of every QSO.

AUTO QSO NUMBER DECREMENT

Values: TRUE or FALSE

Default: FALSE

CTRL-J

If you have programmed an S&P exchange that includes a QSO number, you might find yourself in the situation in which you have just logged a station who is now asking for a repeat of the exchange you sent him. If you press F2, you will send the next QSO number, which will be one more than the one you sent the first time. To fix this problem, you can set AUTO QSO NUMBER DECREMENT to TRUE; this causes TR-LOG to decrement the QSO number when you press F2 when both the Call Window and the Exchange Window are empty.

AUTO RETURN TO CQ MODE

Values: TRUE or FALSE

Default: TRUE

CTRL-J

If this parameter is TRUE, then pressing <ENTER> in S&P Mode when there is no information in either the Call Window or the Exchange Window will cause TR-LOG to return to CQ Mode.

AUTO S&P ENABLE

Values: TRUE or FALSE

Default: FALSE

CTRL-J

When this parameter is TRUE, TR-LOG will automatically jump into S&P Mode if it detects you have moved the VFO quickly. See also [AUTO S&P ENABLE SENSITIVITY](#).

AUTO S&P ENABLE SENSITIVITY

Values: Integer in range 10 to 10000

Default: 1000

CTRL-J

Controls how quickly you must move the VFO (in Hz/sec) in order for the program to jump automatically into S&P Mode if [AUTO S&P ENABLE](#) is TRUE.

AUTO SEND CHARACTER COUNT

Values: Integer in range 0 to 6

Default: 0

CTRL-J

TR-LOG can start to send the callsign of a station responding to your CQ after you have typed a certain number of characters in the callsign of the calling station. This number of characters is controlled with the AUTO SEND CHARACTER COUNT command. For example, if you set AUTO SEND CHARACTER COUNT to 3 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 transmit the [CQ EXCHANGE](#) message when it has sent all the characters you have typed. When the AUTO SEND CHARACTER COUNT is non-zero, an arrow will appear above the Call Window to indicate the point at which TR-LOG will begin to transmit the callsign.

You can disable this function with the ALT-- command. The arrow will then disappear. To re-enable it, press ALT-- again and the arrow will re-appear.

You can delete any unsent characters with the backspace key.

Pressing <ESC> once when TR-LOG is sending the CW will cause the CW to stop. Pressing <ENTER> after stopping the CW will cause the entire callsign to be transmitted.

This feature is automatically disabled if the call contains the / character prior to the start of sending. This is to prevent TR-LOG from beginning to send before you have finished copying a long call such as VP9/GW4AMJ.

AUTO TIME INCREMENT

Values: Integer

Default: 0

CTRL-J

If you are entering a log by hand, the AUTO TIME INCREMENT feature can be very useful. Setting the value to a non-zero value *n* will cause the clock to increment by one after every *n* QSOs. A value of zero disables the feature.

BACKCOPY ENABLE

Values: TRUE or FALSE

Default: FALSE

CTRL-J

This switch controls the backcopy feature of the DVP card. In order for this feature to work, you must:

- have the DVP card installed;
- run the DVPTSR program;
- enable the DVP with the [DVP ENABLE](#) command.

When enabled, the DVP will continuously record the last 30 seconds of receiver audio and make it available for instant replays or saving to disk. To perform an instant replay, see [Table A.1](#). Recording continues during the instant replay. To save a copy of the receiver audio to the disk, see [Table A.2](#). The filename to which the audio is saved is simply the QSO number and the extension is DVP. A note is added to the log to show when the save occurred.

Keystroke	Seconds Replayed
ALT-1	1
ALT-2	2
ALT-3	4
ALT-4	8
ALT-5	16

TABLE A.1: DVP REPLAY COMMANDS

Keystroke	Seconds Saved
ALT-6	5
ALT-7	10
ALT-8	15
ALT-9	20
ALT-0	30

TABLE A.2: DVP SAVE COMMANDS

BAND

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

You can select the band on which TR-LOG will start if no contacts have yet been made. After the program is running, use ALT-B or ALT-V to change 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 command for more info on the Alt key commands.

BAND MAP ALL BANDS

Values: TRUE or FALSE

Default: FALSE

CTRL-J

If TRUE, the bandmap displays entries from all bands. If FALSE, the bandmap displays entries on the current band only. When the cursor is in the bandmap, the value of this flag may be toggled with the B key.

BAND MAP ALL MODES

Values: TRUE or FALSE

Default: FALSE

CTRL-J

If TRUE, the bandmap displays entries from all modes. If FALSE, the bandmap displays those entries associated with the current mode only. When the cursor is in the bandmap, the value of this flag may be toggled with the M key.

BAND MAP CALL WINDOW ENABLE

Values: TRUE or FALSE

Default: TRUE

CTRL-J

When this is TRUE, and you tune to a frequency that has a station in the bandmap, the callsign and exchange information of the station will be displayed in the Call Window. This allows you to renew the entry by simply pressing the space bar¹. The exchange information is shown to help you to identify the station quickly. If you start entering a new callsign, the entry in the Call Window will first be erased.

BAND MAP CUTOFF FREQUENCY

Values: Frequency (Hz)

Default: See [Table 6.7](#)

Allows you to change, on a band-by-band basis, the frequency below which the mode is assumed to be CW and above which it is assumed to be SSB. When you enter a frequency (in Hz), TR-LOG will automatically deduce the band for which you are defining a new cutoff frequency. To define new cutoff frequencies for multiple bands, simply include the command as many times as necessary in your LOGCFG.DAT file, once per cutoff frequency.

BAND MAP DECAY TIME

Values: Integer (minutes)

Default: 60

CTRL-J

This controls the number of minutes for which a new entry will remain visible on the bandmap. The value can be any positive integer less than 32,768.

¹Renewing a station with QSO information in this manner will remove the QSO information.

BAND MAP DISPLAY CQ

Values: TRUE or FALSE

Default: TRUE

ctrlJ

Controls whether the bandmap will include frequencies on which you have called CQ.

BAND MAP DUPE DISPLAY

Values: TRUE or FALSE

Default: TRUE

CTRL-J

When TRUE, dupes are displayed on the bandmap; when FALSE, they are not. When the cursor is in the bandmap, the value of this flag may be toggled with the D key.

BAND MAP ENABLE

Values: TRUE or FALSE

Default: FALSE

CTRL-J

Determines whether the bandmap is displayed. See [section 6.13](#) for more information. If you start TR-LOG with the bandmap disabled, you will have to restart the program for it to be in the correct video mode to display the bandmap.

BAND MAP GUARD BAND

Values: Integer (Hz)

Default: 200

CTRL-J

The bandmap will indicate if a displayed entry is near the frequency of your interfaced radio by causing the appropriate entry to blink. You can adjust how close the frequency needs to be to the entry for blinking to be triggered.

BAND MAP SPLIT MODE

Values: BY CUTOFF FREQ or ALWAYS PHONE

Default: BY CUTOFF FREQ

CTRL-J

This parameter allows you to handle properly the mode of stations that are on the bandmap and are operating split. The default value allows you to tailor the CW and PHONE ranges with the [BAND MAP CUTOFF FREQUENCY](#) command.

BEEP ENABLE

Values: TRUE or FALSE

Default: TRUE

CTRL-J

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

BEEP EVERY TEN QSOS

Values: TRUE or FALSE

Default: FALSE

CTRL-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 that you haven't skipped any contacts.

BIG REMAINING LIST

Values: TRUE or FALSE

Default: FALSE

CTRL-J

The list of remaining multipliers can be expanded to include almost 150 countries by setting this parameter to TRUE.

BROADCAST ALL PACKET DATA

Values: TRUE or FALSE

Default: TRUE

CTRL-J

When this parameter is set to TRUE and you are using a multi network, all data coming from the TNC are sent to all the computers in the network, where the packet information is viewable with the CTRL-B command. Commands may also be sent from any computer on the network to the TNC. Beware that data are not sent to the TNC until <ENTER> is pressed. See [section 6.8](#) for more information,

CALL OK NOW MESSAGE**CALL OK NOW CW MESSAGE****CALL OK NOW SSB MESSAGE**

Values: Any string

Default: } OK %

These messages are sent when you are finishing a contact while running stations and the callsign in the Call Window is different from when you first came back to the station.

Normally, you will send the call of the station and “OK”. There are also 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 xxx?` and update the internal variable `CallsignICameBackTo` to `xxx`. You can also do this in any of your CW messages with the CTRL-U character. This will take the current value of the Call Window and store it in the `CallsignICameBackTo` variable for future comparison.

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

CALLSIGN UPDATE ENABLE

Values: TRUE or FALSE

Default: FALSE

CTRL-J

When this parameter is set to TRUE, TR-LOG will parse the Exchange Window looking for callsigns; if it finds one, the program will act exactly as if the call had been changed in the Call Window. You must type in the complete call, and spaces must both precede and follow it.

If this parameter is TRUE, CTRL-U will send the call in the Exchange Window (otherwise it sends the call in the Call Window).

CALL WINDOW POSITION

Values: NORMAL or UP

Default: NORMAL

This allows you to change the position of the Call Window. When set to UP, the Call Window and the information to the left of it is moved up one line on the screen. The colour of the Call Window also changes to match the Edit Window. This makes the band, mode, date, time, QSO number and call appear as if they are part of the editable log.

CALL WINDOW SHOW ALL SPOTS

Values: TRUE or FALSE

Default: FALSE

When TRUE, as you tune in S&P Mode, all calls that TR-LOG knows about will appear in the Call Window even if they do not appear in the bandmap. For example, if you have [BAND MAP DUPE DISPLAY](#) set to FALSE, dupes will not appear in the bandmap, but they still appear in the Call Window if CALL WINDOW SHOW ALL SPOTS is TRUE.

CHECK LOG FILE SIZE

Values: TRUE or FALSE

Default: FALSE

CTRL-J

When TRUE, TR-LOG will check the size of the LOG.DAT file to ensure 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, and then reboot your computer.

CLEAR DUPE SHEET

Values: TRUE or FALSE

Default: FALSE

TR-LOG will clear the dupesheet when this parameter is set to TRUE in a LOGCFG.DAT file that is executed with the CTRL-V command. TR-LOG does nothing if the command is found in the LOGCFG.DAT file during the start-up process.

CODE SPEED

Values: Integer in range 1 to 99 (WPM)

Default: 35

Use this command to set the CW speed at which TR-LOG will start. While the program is running, you can use the ALT-S command to set a new speed or use the Page-Up/Page-Down keys to change the code speed in increments of [CW SPEED INCREMENT](#), which is 3 WPM by default. The changes instantly affect any CW being sent.

COLUMN DUPESHEET ENABLE

Values: TRUE or FALSE

Default: FALSE

CTRL-J

This parameter controls the format of the visible dupesheet when it is displayed in VGA mode below the normal operating screen. When TRUE, TR-LOG will place each of the ten numerical call districts in its own column. This makes it easier to find a specific call quickly. If two columns each contain more than 25 calls, the display of the dupesheet reverts to its normal mode.

COMPUTER ID

Values: A to Z, or none

Default: None

CTRL-J

When the COMPUTER ID is set to a letter, that letter 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, which can be useful in multi-multi environments.

CONFIRM EDIT CHANGES

Values: TRUE or FALSE

Default: TRUE

CTRL-J

This parameter determines whether you are asked if you want to save the changes made after editing one of your five most recent QSOs (*i.e.*, the QSOs in the editable log) using the ALT-E command. Normally, TR-LOG will ask you whether you want to save changes before updating the LOG.TMP file. To stop TR-LOG from asking this question, set this parameter to FALSE.

CONTACTS PER PAGE

Values: Integer in range 1 to 50

Default: 50

This controls the number of contacts printed on each page of the log.

CONTEST

Values: Any valid contest name

Default: None

The CONTEST statement tells TR-LOG which contest you are going to operate. See [section 5.1](#) for more information on this command.

CONTEST NAME

Values: Any text string

Default: Depends on **CONTEST** parameter

This parameter specifies the name of the contest; TR-LOG adds your call and the year to generate the **CONTEST TITLE**.

CONTEST TITLE

Values: Any text string

Default: Depends on **CONTEST** parameter

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

COPY FILES

This command allows you to move files around while executing a LOGCFG.DAT file. This can be handy, for example, when 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 `.` to represent the currently 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.

COUNT DOMESTIC COUNTRIES

Values: TRUE or FALSE

Default: FALSE

Setting this parameter to TRUE causes TR-LOG to include domestic QSOs in the count of DX countries. (This is in addition to any domestic multiplier that the QSO might accrue.)

COUNTRY INFORMATION FILE

Values: Filename

Default: None

CTRL-J

This command allows you to specify a file that has up to five lines of text associated with a country (countries are defined by the CTY.DAT file). The text will be displayed in the editable log window when you work the station. The file format consists of the country ID character (as used 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 to the number of countries.

CQ EXCHANGE**CQ CW EXCHANGE****CQ SSB EXCHANGE**

Values: Any text string

Default: Depends on **CONTEST** parameter

The CQ EXCHANGE is sent when you are running stations that have responded to your CQ. TR-LOG will automatically send the station's call before the CQ EXCHANGE. The CQ EXCHANGE is sent *immediately* after the callsign is sent. If you want a space between the call and the exchange, you must include a space at the start of the CQ EXCHANGE.

Use CQ CW EXCHANGE and CQ SSB EXCHANGE if you want to send different messages that depend on the mode.

CQ EXCHANGE NAME KNOWN**CQ CW EXCHANGE NAME KNOWN****CQ SSB EXCHANGE NAME KNOWN**

Values: Any text string

Default: None

The CQ EXCHANGE NAME KNOWN message works the same way as the **CQ EXCHANGE** command, except it is sent when TR-LOG 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**CQ CW MEMORIES****CQ SSB MEMORIES**

Values: Any text string; CQ MEMORY F1 to CQ MEMORY F10, ALT-F1 to ALT-F10

Default: Depends on **CONTEST** parameter

These memories are sent when you press the corresponding function key when you are in CQ Mode (CQ Mode is the mode you are in if the Exchange Window is not visible.) Once you have started a contact, or enter S&P Mode, the Exchange Window will appear.

CQ MEMORY F1 can also be sent by pressing <ENTER> when the Call Window is empty.

CQ MENU

Values: Any text string

Default: None

The CQ MENU appears at the bottom of the operating screen when in CQ Mode and the {exchange Window is not displayed. Most operators configure this parameter to display their selections for the programmable CQ function keys.

CURTIS KEYER MODE

Values: A or B

Default: B

CTRL-J

If you have a paddle connected to the computer, you can decide which Curtis keyer mode you want to use (A or B). Most keyers use the B mode, which is the default.

CUSTOM INITIAL EXCHANGE STRING

Values: See description below

Default: None

This string defines how your initial exchange will be constructed if you set **INITIAL EXCHANGE** to the value CUSTOM. You may select any number of the following fields, and put them in any order: CHECK, CQZONE, FOC, GRID, ITUZONE, NAME, OLDCALL, QTH, SECTION, TENTEN, USER1, USER2, USER3, USER4 and USER5.

CUSTOM USER STRING

Values: See description below

Default: None

This string defines how your user info will be shown if you set **USER INFO SHOWN** to the value CUSTOM. You may select any number of the following fields, and put them in any order: CHECK, CQZONE, FOC, GRID, ITUZONE, NAME, OLDCALL, QTH, SECTION, TENTEN, USER1, USER2, USER3, USER4 and USER5.

CW ENABLE

Values: TRUE or FALSE

Default: TRUE

CTRL-J

When this parameter is FALSE, the computer is prevented from sending any CW, except CW sent from the paddle.

CW SPEED FROM DATABASE

Values: TRUE or FALSE

Default: FALSE

CTRL-J

When this parameter is true, TR-LOG will look in the TRMASTER database for a CW Speed entry 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 SPEED INCREMENT

Values: Integer in the range 1 to 10

Default: 3

CTRL-J

This sets the change in CW speed (in words per minute) that occurs when you press the Page-Up or Page-Down keys.

CW TONE

Values: Integer

Default: 700

CTRL-J

The computer can send the CW over its speaker for the purpose of monitoring the transmission. This command allows you to select the pitch of that CW. Setting the value to zero disables sending the CW to the speaker (but the rig will still be keyed). The [PADDLE MONITOR TONE](#) command separately controls the tone frequency of CW sent with the paddle.

DE ENABLE

Values: TRUE or FALSE

Default: TRUE

CTRL-J

This determines whether DE is sent before your callsign when using the F1 key in S&P Mode. If you don't want the program to put DE in front of your call (which is the case for most operators), set this flag to FALSE.

DIGITAL MODE ENABLE

Values: TRUE or FALSE

Default: FALSE

CTRL-J

When this parameter is TRUE, you can select DIG as a mode when using the ALT-M command. DIG is treated as a distinct mode, separate from CW and SSB. This feature is intended to allow you to log digital QSOs made during the ARRL Field Day.

DISPLAY MODE

Values: COLOR or MONO

Default: MONO

This command determines which default colour template will be used for the program. The COLOR option has been optimized for colour displays. If you want to change the colours of individual windows, use the commands listed in [section 5.4](#). As emphasized in that section, remember to put these commands *before* the DISPLAY MODE command in the LOGCFG.DAT file.

DISTANCE MODE

Values: MILES, KM or None

Default: None

CTRL-J

This parameter controls the display of the distance to the station you are working. The distance is shown along with the beam headings. The value of the distance depends on the value of [RADIUS OF EARTH](#).

DOMESTIC FILENAME

Values: Filename

Default: Depends on [CONTEST](#) parameter

CTRL-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 TR-LOG automatically when you specify a certain contest with the [CONTEST](#) parameter. 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](#) parameter to the value DOMESTIC FILE, so that TR-LOG will know to look for a file.

See [subsection 5.5.2](#) for more information on domestic QTH files.

DOMESTIC MULTIPLIER

Values: See [subsection 5.5.1](#)

Default: Depends on [CONTEST](#) parameter

This parameter defines which type of domestic multiplier the program will use. See [subsection 5.5.1](#) for more details.

DUPE CHECK SOUND

Values: DUPE BEEP, MULT FANFARE or None

Default: DUPE BEEP

CTRL-J

When performing a dupe check with the space bar, **TR-LOG** will normally generate a beep if the station is a dupe. However, you can change the program to be silent, or to use the fanfare sound instead.

DUPE SHEET ENABLE

Values: TRUE or FALSE

Default: TRUE

CTRL-J

When FALSE, this command disables the addition of calls to the dupesheet. This allows you to work dupes easily, and also has the more useful effect of conserving memory.

DVK PORT

Values: 1, 2, 3 or None

Default: None

CTRL-J

TR-LOG can connect to a DVK (Digital Voice Keyer) using one of the parallel ports. The program supports an external DVK and the W9XT internal DVK. To activate this support, you must 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 to signal message abort if you are not using the parallel port for band output information. These pin-outs are compatible with NA and CT.

DVP ENABLE

Values: TRUE or FALSE

Default: FALSE

CTRL-J

This command determines whether the DVP is enabled. When it is enabled, you must run the DVPTS or SBDVP program before starting TR-LOG.

DVP PATH

Values: Directory for DVP files

Default: None

CTRL-J

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

DX MULTIPLIER

Values: See [subsection 5.5.1](#)

Default: Depends on [CONTEST](#) parameter

This command determines which type of DX multiplier the program will use. See [subsection 5.5.1](#) for more information.

EIGHT BIT PACKET PORT

Values: TRUE or FALSE

Default: FALSE

This command allows you to switch the packet port to 8-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 or if you are using the WinTelnetX packet emulator.

ESCAPE EXITS SEARCH AND POUNCE

Values: TRUE or FALSE

Default: TRUE

CTRL-J

When this parameter is TRUE, pressing <ESC> when in S&P Mode causes TR-LOG to revert to CQ Mode. When the parameter is FALSE, the only way to revert to CQ Mode is to press SHIFT-TAB. However, the FALSE setting is ignored if you have a call ready for a QSO on the other rig. This allows you to abort a second-radio QSO with <ESC> even if this parameter is FALSE.

EX MEMORIES**EX CW MEMORIES****EX SSB MEMORIES**

Values: EX MEMORY F3 to EX MEMORY F10, ALTF1 to ALTF10, CTRLF1 to CTRLF10

Default: Depends on [CONTEST](#) parameter

The contents of these memories are sent when you press the corresponding function key and you are in Exchange Mode or S&P Mode (*i.e.*, whenever the Exchange Window is visible). Memory EX MEMORY F1 is used for sending your callsign in S&P Mode and is programmed by the [MY CALL](#) command; EX MEMORY F2 is programmed by the [CQ EXCHANGE](#) command.

Use the EX CW MEMORIES and EX SSB MEMORIES if you want the memories to depend on your mode.

EX MENU

Values: Any text string

Default: None

The EX MENU appears on the bottom of the screen when you are in Exchange Mode or S&P Mode (*i.e.*, whenever the Exchange Window is visible). It is often a good idea to configure this menu to display the contents of the messages that are in your exchange function key memories.

EXCHANGE MEMORY ENABLE

Values: TRUE or FALSE

Default: TRUE

CTRL-J

This parameter allows you to control whether the TR-LOG exchange memory is used. The exchange memory is useful when working the same station on different bands or modes, and when the exchange contains either a class (*e.g.*, ARRL Field Day), power (ARRL DX), age (All Asian), name, ITU Society name (IARU), zone, or Domestic QTH. If you have worked the station before in the contest, the constant information will appear without you having to re-enter it. Please note that this information is lost if you stop TR-LOG and the RESTART.BIN file is deleted. See [section 6.7](#) for more information about this.

EXCHANGE RECEIVED

Values: See [subsection 5.5.4](#)

Default: Depends on [CONTEST](#) parameter

This parameter tells TR-LOG what kind of exchange data to expect. It is normally controlled by the [CONTEST](#) statement in the LOGCFG.DAT file. See [subsection 5.5.4](#) for more details.

FARNSWORTH ENABLE

Values: TRUE or FALSE

Default: FALSE

CTRL-J

When slowing down the 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 the value of [FARNSWORTH SPEED](#) (default is 25 WPM). You can control this parameter dynamically while sending a CW message. See [section 6.15](#) for more information.

FARNSWORTH SPEED

Values: Integer (WPM)

Default: 25

CTRL-J

Controls the CW speed at which the Farnsworth effect starts. As you decrease the code speed below this value, there will be exponentially more space added between characters. For increased Farnsworth effect at very slow speeds, increase the value of FARNSWORTH SPEED. You can also control this parameter dynamically within CW messages. See [section 6.15](#) for more information.

FILTER RADIO MESSAGE LENGTH

Values: TRUE or FALSE

Default: FALSE

CTRL-J

Some radios occasionally send incomplete messages to the computer. If you have occasional problems with strange frequency or band values, try setting this parameter to TRUE.

FLOPPY FILE SAVE FREQUENCY

Values: Integer (# of contacts)

Default: 0

CTRL-J

This command allows you to control how frequently TR-LOG saves the current log to another file. A value of 0 (which is the default) disables this feature.

FLOPPY FILE SAVE NAME

Values: Any valid filename

Default: LOGBACK.DAT

CTRL-J

This command allows you to backup the LOG.DAT file periodically throughout the contest to another disk drive. To enable this feature, set the **FLOPPY FILE SAVE FREQUENCY** equal to the number of contacts you wish to make between backups. The name of the file to which the backup will be made is controlled by the FLOPPY FILE SAVE NAME command. The names of these commands are misleading: you can make backups to any drive; you can even make backups to the current working directory as long as the name of the backup file is something different from LOG.DAT.

FOOT SWITCH MODE

Values: See [section 6.17](#)

Default: Disabled

CTRL-J

This command determines what happens when you press a foot switch that is connected to pin 15 of the port specified by the **FOOT SWITCH PORT** command. See [section 6.17](#) for details.

FOOT SWITCH PORT

Values: Integer in range 1 to 3

Default: None

This command is used to identify the parallel port to which you have a foot switch connected. 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 ADDER
FREQUENCY ADDER RADIO ONE
FREQUENCY ADDER RADIO TWO

Values: Integer (Hz)

Default: 0

CTRL-J

The frequency adder can be used to add an offset to the frequency received from an interfaced radio. This allows the program to be used with a transverter in the case where the IF frequency is reported instead of the actual frequency. The value for this parameter is in Hz, *not* kHz. The command **FREQUENCY ADDER** sets the value for both radios simultaneously.

FREQUENCY MEMORY

Values: Frequency (kHz)

Default: None

When **TR-LOG** first switches to a band/mode, it has a frequency that it will go to as a default. Use this command if you would like to change the default value. Use this command once per band that you would like to change. If you are specifying a frequency that might be processed as a CW frequency but which you want to be used as an SSB frequency, put **SSB** in front of it (*e.g.*:

FREQUENCY MEMORY = SSB 7050

). Note that these defaults will be updated with actual frequencies used for later band/mode changes if you set **FREQUENCY MEMORY ENABLE** to **TRUE**.

FREQUENCY MEMORY ENABLE

Values: **TRUE** or **FALSE**

Default: **TRUE**

CTRL-J

When set to **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).

FREQUENCY POLL RATE

Values: Integer 10 to 1000 (msec)

Default: 250

CTRL-J

This command tells TR-LOG how frequently to poll the rig for a new frequency. The value is in milliseconds, and the allowed values are in the range 10 to 1000.

FT1000MP CW REVERSE

Values: TRUE or FALSE

Default: FALSE

CTRL-J

If you have connected a Yaesu FT-1000MP to the computer, this parameter determines whether the rig uses normal or reverse mode for CW .

GRID MAP CENTER

Values: Four- or six-character grid reference

Default: None

CTRL-J

This parameter will set the centre of a grid map that will show you at a glance the grids you have worked. The grid map will be displayed in VGA mode (if available). The CTRL-LEFT and CTRL-RIGHT keys may be used to move the grid map sideways. (There is no way to move the grid map vertically.)

HF BAND ENABLE

Values: TRUE or FALSE

Default: Depends on [CONTEST](#) parameter

CTRL-J

This parameter enables the HF bands below 30 MHz. It is automatically set to FALSE when you select a VHF contest.

HOURLY DISPLAY

Values: THIS HOUR, LAST SIXTY MINUTES or BAND CHANGES

Default: THIS HOUR

CTRL-J

This parameter determines how the hourly 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 current hour began.

HOURLY OFFSET

Values: Integer (may be negative)

Default: 0

CTRL-J

TR-LOG can add an offset to your computer time to generate UTC for your logs. Using this command allows you to subtract or add a number of hours. For example, if you are in England during the summer and your computer is one hour ahead of UTC, you would set the value to -1.

ICOM RESPONSE TIMEOUT

Values: Integer (milliseconds)

Default: 100

CTRL-J

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

INCREMENT TIME ENABLE

Values: TRUE or FALSE

Default: FALSE

CTRL-J

Determines whether the “increment time function” using ALT-1 to ALT-0 is enabled. If this flag is set to TRUE, the ALT-1 to ALT-0 keys will increment the time by 1 to 10 minutes respectively. This function can be useful when entering a log by hand after the contest. See [section 6.3](#) for more information on entering a handwritten log.

INITIAL EXCHANGE

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

Default: Depends on [CONTEST](#) parameter

CTRL-J

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 may come from the database, or if not found there, will be calculated based upon the callsign and the information found in the CTY.DAT country file.

If this parameter is set to CUSTOM, your initial exchange will be built using the **CUSTOM INITIAL EXCHANGE STRING** parameter. This allows you to choose multiple data fields and place 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 in the contest. See [section 5.6](#) for more details about initial exchanges.

INITIAL EXCHANGE CURSOR POS

Values: AT START or AT END

Default: AT END

CTRL-J

When an initial exchange is inserted into the Exchange Window, this command controls whether the cursor is placed at the start or at the end of the exchange.

INITIAL EXCHANGE FILENAME

Values: Filename

Default: INITIAL.EX

This parameter allows you to specify the name of the initial exchange file. This file is used by TR-LOG to determine initial exchanges for the callsigns included in the file. The calls will also be used 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.

INITIAL EXCHANGE OVERWRITE

Values: TRUE or FALSE

Default: FALSE

If this parameter is TRUE, then pressing any key after an initial exchange has been entered into the Exchange Window by TR-LOG will cause the exchange to be erased, allowing you to insert a complete exchange manually.

INPUT CONFIG FILE

Values: Filename

Default: None

With this command you can specify the name of a file to get loaded as if it were included in a LOGCFG.DAT file. This allows you to put the LOGCFG.DAT

commands that are always the same in one place (*e.g.*, rig interface information, beam heading file names, etc.). For example, to use the file `COMMON.CFG` in the directory `\LOG\NAME`, use the command:

```
INPUT CONFIG FILE = \LOG\NAME\COMMON.CFG
```

INSERT MODE

Values: TRUE or FALSE

Default: TRUE

This command allows you to define the initial state of the insert mode, which controls whether characters are overwritten or inserted when editing a callsign or exchange. You can toggle the insert mode while `TR-LOG` is running with `CTRL-V` or the `INSERT` key.

INTERCOM FILE ENABLE

Values: TRUE or FALSE

Default: FALSE

`CTRL-J`

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

JST RESPONSE TIMEOUT

Values: Integer (milliseconds)

Default: 100

`CTRL-J`

This parameter adjusts the amount of time that `TR-LOG` waits for a response from a connected JST rig before giving up on the response. A value of 100 milliseconds seems sufficient for all current rigs. However, if you are having problems communicating with a JST rig, you might try increasing this value.

KENWOOD RESPONSE TIMEOUT

Values: Integer (milliseconds)

Default: 25

`CTRL-J`

This parameter adjusts the amount of time that `TR-LOG` waits for a response from a connected Kenwood rig before giving up on the response. A value of 25 milliseconds seems sufficient for all current rigs. However, if

you are having problems communicating with a Kenwood rig, you might try increasing this value.

KEYER OUTPUT PORT

KEYER RADIO ONE OUTPUT PORT

KEYER RADIO TWO OUTPUT PORT

Values: SERIAL 1 to SERIAL 6; 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 in the range 1 to 4, and parallel ports in the range 1 to 3. When specifying a serial port for CPU keying, you can add the word INVERT to the port name (*e.g.*, SERIAL 1 INVERT). This will invert the CW and PTT signals. This simplifies the interface to a radio which uses inverted signalling. 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
KEYER RADIO ONE OUTPUT PORT = PARALLEL 1
KEYER RADIO TWO OUTPUT PORT = SERIAL 2
```

KEYPAD CW MEMORIES

Values: TRUE or FALSE

Default: FALSE

CTRL-J

When this parameter is TRUE, the keys 0 to 9 on the keypad will send CQ MEMORIES CTRL-F1 to CTRL-F10 respectively.

K1EA NETWORK ENABLE

Values: TRUE or FALSE

Default: FALSE

CTRL-J

Enabling this parameter can be useful when you are running TR-LOG on a K1EA-compatible network. When it is TRUE, TR-LOG will support the protocol and message formats that K1EA uses for passing information around the network.

K1EA STATION ID

Values: Any character

Default: None

CTRL-J

If you are running TR-LOG on a K1EA-compatible network, this command sets the character that is used to identify this particular computer to the K1EA-compatible network.

LEADING ZERO CHARACTER

Values: Any character

Default: T

CTRL-J

This parameter allows you to customize the character used as a leading zero when generating serial numbers and **LEADING ZEROS** has a value greater than zero. Normally, the character is T. However, you might prefer the number 0 or the letter O. If you use the CTRL-J menu to access this parameter, it will let you cycle among those three characters.

LEADING ZEROS

Values: Integer

Default: 0

CTRL-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 the addition of 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

CTRL-J

When this parameter is TRUE, the cursor will remain in the Call Window instead of moving automatically to the Exchange Window during the QSO process. Some people prefer this mode in contests where a zone is displayed as the initial exchange and you rarely need to change it.

LITERAL DOMESTIC QTH

Values: TRUE or FALSE

Default: FALSE

CTRL-J

Normally, TR-LOG will filter the domestic QTH that you type, and log the QTH as shown in the domestic file. If you would rather log exactly what you type, set this parameter to TRUE.

LOG FILE NAME

Values: Filename

Default: LOG.DAT

If you want the name of the log file to be something other than LOG.DAT, use this command to change it.

LOG FREQUENCY ENABLE

Values: TRUE or FALSE

Default: FALSE

CTRL-J

When this parameter is TRUE, the serial number will be replaced with the frequency of the QSO (without the leading Megahertz part of the 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**

Values: Text, up to a maximum of three characters

Default: 59 or 599, depending on mode

CTRL-J

The outbound signal report that appears 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 transmitted, and this value will be placed in your log instead of the default.

LOG SUB TITLE

Values: Any string

Default: None

Use this command if you want a subtitle to appear at the top of each printed log page.

LOG WITH SINGLE ENTER

Values: TRUE or FALSE

Default: FALSE

CTRL-J

If this parameter is TRUE, the QSO will be logged as soon as you press the initial <ENTER> (to send the exchange). In other words, it behaves as if you have pressed <ENTER> followed by CTRL-ENTER.

LOOK FOR RST SENT

Values: TRUE or FALSE

Default: FALSE

CTRL-J

When this parameter is TRUE, a transmitted RST may be entered into the Exchange Window by preceding it with S. For example, typing S57 would place "57" into the log as the transmitted exchange for this QSO.

MESSAGE ENABLE

Values: TRUE or FALSE

Default: TRUE

CTRL-J

This command determines whether the various messages located in the ALT-P menu are sent. If you disable them by setting this parameter to FALSE, messages such as the [CQ EXCHANGE](#) and [QSL MESSAGE](#) will not be sent. This command would be used if you want to send these messages manually.

MODE

Values: CW, DIG, PHONE or SSB

Default: CW

CTRL-J

You can use this command to select the mode in which TR-LOG will start when no QSOs have been made. Normally, you would just use ALT-M to select the desired mode.

MODEM PORT

Values: SERIAL 1 to SERIAL 6

Default: None

This command allows you to connect to another computer via a dedicated modem port.

MODEM PORT BAUD RATE

Values: 1200, 2400 or 4800

Default: 4800

This command sets the speed of the modem port.

MOUSE ENABLE

Values: TRUE or FALSE

Default: FALSE

CTRL-J

When this parameter is TRUE, the mouse is enabled for selecting entries on the bandmap (when using the CTRL-END command). If this is set to TRUE and you do not have a mouse connected, it is possible that the CTRL-END command will not work correctly.

MULT BY BAND**MULT BY MODE**

Values: TRUE or FALSE

Default: Depends on [CONTEST](#) parameter

CTRL-J

These commands determine whether multipliers can be counted again on different bands or modes. These parameters are configured when the [CONTEST](#) statement is executed and normally do not require any changes.

MULT REPORT MINIMUM BANDS**MULT REPORT MINIMUM COUNTRIES**

Values: Integer in range 2 to 4

Default: 4

CTRL-J

These commands are synonymous. When executing the CTRL-O command, you will be shown DX multipliers that you have worked on a certain number, but not all, bands. This parameter sets the minimum number of bands on which the country must have been worked in order to appear on this report.

MULTI INFO MESSAGE

Values: Any string

Default: None

CTRL-J

The MULTI INFO MESSAGE is a string that can be viewed by other computers on the network. For details see [section 6.10](#). If you change the value of the MULTI INFO MESSAGE during the contest by using the CTRL-J menu, the new message will be immediately transmitted to the other computers on the network.

MULTI MULTS ONLY

Values: TRUE or FALSE

Default: FALSE

CTRL-J

If you are using a computer network for a multi operation, this command will determine whether all QSOs are passed around the network, or only those that are new multipliers.

MULTI PORT

Values: SERIAL 1 to SERIAL 6

Default: None

If you are using multiple computers in a network, use this command to specify the serial port you are using. See [section 6.10](#) for more details.

MULTI PORT BAUD RATE

Values: 1200, 2400 or 4800

Default: 4800

If you are using multiple computers in a network, use this command to specify the baud rate you are using. See [section 6.10](#) for more details.

MULTI RETRY TIME

Values: 0, or Integer ≥ 3 (seconds)

Default: 30

CTRL-J

This value determines how quickly a retry is sent (for the first two retry attempts) over the multi network. When a computer generates a multi network message, it checks whether the message travels successfully all the way around the loop. If it does not 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 networks with only 2 or 3 computers, a shorter time is more optimum. It is suggested you try setting this to a value corresponding to a few 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

CTRL-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 might take too long to update this display, in which case you should set this value to FALSE.

MULTIPLE BANDS MULTIPLE MODES

Values: TRUE or FALSE

Default: Depends on [CONTEST](#) parameter

CTRL-J

These commands 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 changing band or mode accidentally during the contest. Before you make your first QSO, you will be able to set the band and mode regardless of the value of these parameters.

MY CALL

Values: Your callsign

Default: None

CTRL-J

This must be the first statement of your LOGCFG.DAT file. You should include any portable designation. The CTRL-J menu allows you to view the value of MY CALL, but not to edit it.

MY CHECK

Values: Any string

Default: None

This command is mandatory when operating the Sweepstakes contest. If [CONTEST](#) is set to SWEEPSTAKES, TR-LOG will prompt you for this value if it is not already set.

MY CONTINENT

Values: AF, AN, AS, EU, NA, OC or SA

Default: Computed from [MY CALL](#)

CTRL-J

Normally, your continent is determined by your callsign. However, if you want the program to place 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 that TR-LOG can configure the contest correctly. The CTRL-J menu allows you to view the value of MY CONTINENT, but not to edit it.

MY COUNTRY

Values: Any valid country ID

Default: Computed from [MY CALL](#)

CTRL-J

Normally, your country is determined by your callsign. However, if you want the program to place 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 that TR-LOG can configure the contest correctly. The CTRL-J menu allows you to view the value of MY COUNTRY, but not to edit it.

MY FD CLASS

Values: Any valid ARRL Field Day class

Default: None

CTRL-J

This is used to set your station class for ARRL Field Day (*e.g.*, 1A). If you are operating the Field Day, TR-LOG will prompt you for this value if it is not already set

MY GRID

Values: Four- or six-character grid identifier

Default: None

CTRL-J

This parameter identifies the grid from which you are operating. This is used to generate beam heading 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 separately the center of the grid map.

MY IOTA

Values: IOTA designator

Default: None

CTRL-J

This is used to set the IOTA identifier of the island from which you are operating (*e.g.*, EU-006).

MY NAME

Values: Any string

Default: None

Use this command before the **CONTEST** statement if you are operating a contest that uses your name as part of the exchange. In contests where the exchange includes the name received in the prior QSO (using the special CW character ()), **TR-LOG** will use this value as the name that is sent in the first QSO.

MY POSTAL CODE

Values: Any string

Default: None

Used in the RSGB ROPOCO (Rotating Post Code) contest as the post-code sent in the first QSO.

MY PREC

Values: A, B, M, Q, S or U

Default: None

This command is mandatory when operating Sweepstakes. If you are operating Sweepstakes, **TR-LOG** will prompt you for this value if it is not already set.

MY QTH

Values: Any string

Default: None

This is a synonym for **MY STATE**.

MY SECTION

Values: Any string

Default: None

This is mandatory when operating Sweepstakes or ARRL Field Day. If your chosen contest requires this information, TR-LOG will prompt you for this value if it is not already set.

MY STATE

Values: Any string

Default: None

In some of the contests where a state or province is part of the exchange, TR-LOG will automatically configure the CW messages to include your location. This command allows you to tell the program what state (or province) to use in these messages. This command is also used to determine your state for various state QSO parties. Use the ordinary United States Postal Service two-letter state abbreviation to set your state. It is best to put this command before the [CONTEST](#) statement in your LOGCFG.DAT file so that the information is processed correctly.

MY ZONE

Values: Integer

Default: Computed from [MY CALL](#)

CTRL-J

Normally, your zone is determined by your callsign. However, if you want TR-LOG to place 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 that TR-LOG will configure the contest properly.

However, the relationship between what happens when the contest executes the MY ZONE command and when it executes the [CONTEST](#) command is complex, and under some circumstances (for example, the IARU contest) the MY ZONE command should appear *after* the [CONTEST](#) command. The most common symptom of having these commands in the incorrect order is that TR-LOG will score the contest as if you were in a different zone from the one in which you are actually located. If you see that TR-LOG does not seem to be scoring the contest properly, you should try switching the order of the [CONTEST](#) and MY ZONE commands.

The CTRL-J menu allows you to view the value of MY ZONE, but not to edit it.

NAME FLAG ENABLE

Values: TRUE or FALSE

Default: TRUE

CTRL-J

When this parameter is TRUE, an asterisk is shown in the log when you make a QSO with a station whose name is known.

NAME MEMORY DISABLE

Values: TRUE or FALSE

Default: FALSE

This command controls whether the names and callsigns from the name database are loaded into memory, or merely the callsigns. If you are running short of memory during a contest, the CTRL-Y command will dump the name portion of the database (keeping the callsigns). The CTRL-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 restarts.

NO LOG

Values: TRUE or FALSE

Default: FALSE

CTRL-J

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

NO POLL DURING PTT

Values: TRUE or FALSE

Default: FALSE

CTRL-J

When this parameter is TRUE, TR-LOG will not poll the radio for frequency information during the time the PTT signal is active.

ORION PORT

Values: SERIAL 1 to SERIAL 6

Default: None

This command is used to select a serial port on which to communicate with an Orion rotator control. To send the rotator to the direction for the country of a callsign in the Call Window, use the CTRL-P command. rotator control

PACKET ADD LF

Values: TRUE or FALSE

Default: FALSE

CTRL-J

When this parameter is TRUE, a line feed character will be inserted after receiving a carriage return from the TNC. Use this command if your packet lines are not scrolling properly down the screen.

PACKET AUTO CR

Values: TRUE or FALSE

Default: FALSE

CTRL-J

When this parameter is TRUE, a carriage return will be sent to the packet port when exiting the CTRL-B packet window.

PACKET BAND SPOTS

Values: TRUE or FALSE

Default: FALSE

CTRL-J

When this parameter is TRUE, only the packet spots for the band on which you are currently active will be displayed.

PACKET BAUD RATE

Values: 1200, 2400 or 4800

Default: 2400

You can use this command to select the baud rate to be used for the packet port that you have specified.

PACKET BEEP

Values: TRUE or FALSE

Default: TRUE

CTRL-J

When this parameter is TRUE, the computer will beep whenever a packet spot is displayed.

PACKET LOG FILENAME

Values: Valid filename

Default: None

CTRL-J

If this parameter is set, all packet spots received will be saved to the named file.

PACKET PORT

Values: SERIAL 1 to SERIAL 4

Default: None

Use this command to connect your packet TNC to TR-LOG. To activate the packet window that allows you to log into your packet cluster, use the CTRL-B command.

PACKET RETURN PER MINUTE

Values: Integer, 0 to 9

Default: 0

CTRL-J

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

PACKET SPOT COMMENT

Values: String (max. 15 characters)

Default: None

CTRL-J

The value of this parameter is sent in the comment field of any uploaded packet spot.

PACKET SPOT DISABLE

Values: TRUE or FALSE

Default: FALSE

CTRL-J

When this parameter is TRUE, TR-LOG will not transmit spots to the packet network.

PACKET SPOT EDIT ENABLE

Values: TRUE or FALSE

Default: FALSE

CTRL-J

When using the **PACKET SPOT KEY** to spot the station that you are working, this parameter allows you to edit the packet spot before it is transmitted if it is TRUE. This feature might be used to add QSX information or other notes.

PACKET SPOT KEY

Values: Any character

Default: `

This command allows you to change the key that is used to send a spot to the packet network. (You may wish to do this if you already use the ` character as the **START SENDING NOW KEY**, although TR-LOG will try to act intelligently if you leave both set to their default value.)

PACKET SPOT PREFIX ONLY

Values: TRUE or FALSE

Default: FALSE

CTRL-J

Setting this parameter to TRUE causes TR-LOG to post only the prefix when spotting calls. (In other words, when set to TRUE, TR-LOG goes some way to requiring the mob to be able to copy CW.)

PACKET SPOTS

Values: ALL or MULT

Default: MULT

CTRL-J

This command allows you to select whether you want to see all packet spots or just stations that would be new multipliers.

PADDLE BUG ENABLE

Values: TRUE or FALSE

Default: FALSE

CTRL-J

When this parameter is TRUE, the dah side of your paddle will act like a bug.

PADDLE MONITOR TONE

Values: Integer

Default: 700

CTRL-J

The computer speaker monitor is normally used when you send with a paddle connected to the parallel port. This command controls the frequency of the generated sidetone. A value of zero disables the tone.

PADDLE PORT

Values: 1, 2, 3 or None

Default: None

Use this command to tell TR-LOG to which parallel port you have connected a paddle. See [Appendix B](#) for details of how to connect a paddle to the computer.

PADDLE PTT HOLD COUNT

Values: Integer

Default: 13

CTRL-J

This command controls the delay between when you stop sending CW with the paddle and when the PTT is released. The delay is measured in dit counts.

PADDLE SPEED

Values: Integer

Default: 0

CTRL-J

This command Controls the speed of CW sent with the paddle. A value of zero causes the paddle to send at the same speed as TR-LOG.

PARTIAL CALL ENABLE

Values: TRUE or FALSE

Default: TRUE

CTRL-J

This command allows you to control the partial call function. This is a separate feature from the super check partial (which uses the TRMASTER.DTA database). The callsigns used by the partial call function come from the dupesheet and initial exchange file.

When this function is enabled, partial calls will be shown on the bottom of the screen after the second character of a call has been typed into the

Call Window. A “partial call” is defined to be any call that starts with the same letters as those in the Call Window. The WILDCARD PARTIALS parameter determines whether the partial call must appear at the start of the call or whether it may appear anywhere in the callsign.

PARTIAL CALL LOAD LOG ENABLE

Values: TRUE or FALSE

Default: FALSE

CTRL-J

This command allows the partial call list and the initial exchange list to be generated from the LOG.DAT file when starting TR-LOG. Normally, you do not need to do this, as the RESTART.BIN file has this information already. However, if you have deleted the RESTART.BIN file or have edited the LOG.DAT file and you want to regenerate the partial call list from the new LOG.DAT file, you should set this value to TRUE. When this feature is enabled, TR-LOG will take somewhat longer than normal to start.

PARTIAL CALL MULT INFO ENABLE

Values: TRUE or FALSE

Default: TRUE

CTRL-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 your computer is too slow for this feature to be useful, disable it by setting the flag to FALSE.

POLL RADIO ONE

POLL RADIO TWO

Values: TRUE or FALSE

Default: TRUE

CTRL-J

Setting these values to FALSE allow you to use TR-LOG with a rig that accepts incoming commands from the program even though it does not respond correctly to its requests for information from the rig.

POSSIBLE CALL ACCEPT KEY

Values: Any character

Default: ;

POSSIBLE CALL LEFT KEY

Values: Any character

Default: ,

POSSIBLE CALL RIGHT KEY

Values: Any character

Default: .

When you are using the [PARTIAL CALL ENABLE](#) or the [POSSIBLE CALLS](#) 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 (like this: <G4AMJ>). You can transfer the callsign with the cursor around it to the Call Window with the POSSIBLE CALL ACCEPT KEY. You can move the cursor to the left and the right with the POSSIBLE CALL LEFT KEY and the POSSIBLE CALL RIGHT KEY.

POSSIBLE CALLS

Values: TRUE or FALSE

Default: TRUE

CTRL-J

When this parameter is TRUE, the possible call feature is enabled. This causes TR-LOG to display similar calls from the TRMASTER database and from your dupesheet when you are working a new station.

POSSIBLE CALL MODE

Values: NAMES or ALL

Default: NAMES

CTRL-J

The possible calls that 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-LOG which used the name database for possible calls.

PREFIX MULTIPLIER

Values: NONE or PREFIX

Default: Depends on [CONTEST](#) parameter

This command instructs TR-LOG how to handle the prefix multiplier. It is normally set by the [CONTEST](#) statement in the LOGCFG.DAT file. See [subsection 5.5.1](#) for more details.

PRINTER ENABLE

Values: TRUE or FALSE

Default: FALSE

CTRL-J

This command controls operation of the printer. If you have a printer connected to the computer, setting this parameter to TRUE will cause each contact to be printed as it is logged during the contest. The printer prints a contact as it leaves the editable log window, so it will be five contacts behind the on-screen log. 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

CTRL-J

This command controls whether 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 to turn it off as soon as the message being sent has concluded. If you are using break-in (QSK), you should disable this signal.

PTT TURN ON DELAY

Values: Integer

Default: 15

CTRL-J

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

QSL MESSAGE**QSL CW MESSAGE****QSL SSB MESSAGE**

Values: Any string

Default: Depends on [CONTEST](#) parameter

These messages are sent at the end of a QSO when you are running. 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

CTRL-J

This command can be used to change the criteria used to QSL an exchange and to log it when you are in CQ Mode. Normally, TR-LOG requires the complete exchange to be entered before you can QSL and log the contact. However, if you select QSL BUT NO LOG, the QSL message will be sent even if the exchange information is not completed, but you need to finish entering the exchange and hit <ENTER> again before it will be logged. QSL AND LOG will totally eliminate any syntax checking on the exchange and log whatever you have entered. This mode is NOT recommended in normal operations.

QSO BEFORE MESSAGE

QSO BEFORE CW MESSAGE

QSO BEFORE SSB MESSAGE

Values: Any string

Default: SRI QSO B4 73 \ TEST

The QSO BEFORE MESSAGE is sent when a dupe tries to work you. Since it is sent immediately after the call, you should ensure that the string begins with a space. If you would rather send the exchange and just work dupes (instead of possibly entering an argument), then set [AUTO DUPE ENABLE CQ](#) to FALSE.

Use QSO BEFORE CW MESSAGE and QSO BEFORE SSB MESSAGE to configure different messages for the two modes.

QSO BY BAND

QSO BY MODE

Values: TRUE or FALSE

Default: Depends on [CONTEST](#) parameter

These parameters determine whether QSOs can be counted again if they occur on different bands or modes. The 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

CTRL-J

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

QSO POINT METHOD

Values: See [subsection 5.5.3](#)

Default: Depends on [CONTEST](#) parameter

The QSO POINT METHOD tells the program how to calculate QSO points for the contacts. It is normally configured by the [CONTEST](#) statement in your LOGCFG.DAT file. See [subsection 5.5.3](#) for more details.

QSO POINTS DOMESTIC CW**QSO POINTS DOMESTIC****QSO POINTS DOMESTIC PHONE****QSO POINTS DX CW****QSO POINTS DX****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

CTRL-J

This parameter determines whether QSX information is decoded from packet spots. You might want to disable this feature if you are a DX station and are not interested in split spots.

QTC ENABLE

Values: TRUE or FALSE

Default: Depends on **CONTEST** parameter

This is normally turned on automatically when a WAE is being configured. When you have enabled QTCs, you will need to remember that CTRL-Q is the magic key to send (if you are not in EU) or receive (if you are in EU) QTCs. TR-LOG will automatically ensure that you do not send a QTC containing the call of the station to whom you are sending the QTC. On CW, both the CTRL-ENTER and ALT-K keys work as usual even when QTCs are being sent.

QTC EXTRA SPACE

Values: TRUE or FALSE

Default: TRUE

CTRL-J

When this parameter is TRUE, extra spaces are inserted between the elements of a QTC.

QTC MINUTES

Values: TRUE or FALSE

Default: FALSE

When this parameter is TRUE, the QTC function will send only the minutes of QTC times that are in the same hour as the time previously sent.

QTC QRS

Values: TRUE or FALSE

Default: TRUE

CTRL-J

When this parameter is TRUE, TR-LOG will send QTCs with the CW speed approximately 6% slower than the normal sending speed.

QUESTION MARK CHAR

Values: Any key

Default: ?

CTRL-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 another key². This allows

²The author finds it useful to assign the = character with this command.

operation without pressing the shift key, which may be inconvenient, or may change the rig frequency if your rig is interfaced to the computer.

QUICK QSL KEY

Values: Any key

Default: \

When you finish a contact while running on CW, normally you press <ENTER> to log the contact and send the [QSL MESSAGE](#). If you want to send the [QUICK QSL MESSAGE](#) instead, you press the QUICK QSL KEY instead of <ENTER>.

QUICK QSL KEY 2

Values: Any key

Default: =

When you finish a contact while running on CW, normally you press <ENTER> to log the contact and send the [QSL MESSAGE](#). If you want to send the [QUICK QSL MESSAGE 2](#) instead, you press the QUICK QSL KEY 2 instead of <ENTER>.

QUICK QSL MESSAGE

Values: Any string

Default: TU

QUICK QSL MESSAGE 2

Values: Any string

Default: E E

QUICK QSL CW MESSAGE

Values: Any string

Default: None

QUICK QSL SSB MESSAGE

Values: Filename

Default: None

The QUICK QSL MESSAGE allows you to send a shorter message at the end of a QSO when you have a pileup. Pressing the key defined by the [QUICK QSL KEY](#) command will send this message and log the QSO.

Use QUICK QSL CW MESSAGE and QUICK QSL SSB MESSAGE when you want different messages, depending on your mode. The value of QUICK QSL SSB MESSAGE is the name of the file that contains the DVP message you wish to transmit. See [section 6.12](#) for details.

RADIO ONE BAND OUTPUT PORT
RADIO TWO BAND OUTPUT PORT

Values: 1, 2, 3, or NONE

Default: NONE

You can send band information from either radio to a parallel port in order to control an external antenna switch. This pair of commands allows you to specify which port is used for the two rigs. There are four bits of information output using pins 2, 7, 8 and 9. Use [Table A.3](#) to determine the outputs. Values are shown in hex. Pin 9 is the MSB and pin 2 is the LSB. Logical one is output as a high voltage (+5 volts).

Band	Value
160	1
80	2
40	3
30	4
20	5
17	6
15	7
12	8
10	9
6	A
2	B
222	C
432	D
902	E
1GH	F
Other or None	0

Table A.3: Band Information from Rig

The output can be connected to a 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**RADIO TWO BAUD RATE**

Values: 1200, 2400, 4800, or 57600

Default: 4800

This command controls the baud rate between the computer and the connected rigs.

RADIO ONE CONTROL PORT**RADIO TWO CONTROL PORT**

Values: SERIAL 1 to SERIAL 6

Default: None

Use these commands to specify the serial port to use for each connected rig.

RADIO ONE ID CHARACTER**RADIO TWO ID CHARACTER**

Values: Any character

Default: NULL

CTRL-J

These two commands allow you to specify a unique character to identify in the log which rig was used to make a QSO. The letter is appended to the QSO number. This feature cannot be used 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

When you are using two rigs, the name of the currently-active rig is displayed in the lower left corner of the screen; these commands define the strings that are displayed for the two rigs.

RADIO ONE RECEIVER ADDRESS**RADIO TWO RECEIVER ADDRESS**

Values: Any integer (base 10)

Default: 4

These two commands allow you to specify the receiver address when connecting to an Icom or Ten-Tec rig. The rig will have a specific receiver address

that TR-LOG needs to know in order to communicate with it. The number must be entered in base 10. Receiver addresses for some rigs are shown in [Table A.4](#).

RADIO ONE TRACKING ENABLE
RADIO TWO TRACKING ENABLE

Values: TRUE or FALSE

Default: TRUE

CTRL-J

When this parameter is FALSE, TR-LOG ignores information obtained via the radio interface when changing band/mode.

RADIO ONE TYPE
RADIO TWO TYPE

Values: FT100, FT817, FT840, FT847, FT890, FT900, FT920, FT990, FT1000, FT1000MP, IC706, IC706II, IC706IIG, IC707, IC725, IC726, IC728, IC729, IC735, IC736, IC737, IC738, IC746, IC746PRO, IC756, IC756PRO, IC756PROII, IC761, IC765, IC775, IC781, K2, OMNI6, OMNIVI, ORION, TSxxx

Default: None

For each rig, you need to tell TR-LOG what type of radio you have connected. The Ten-Tec rigs use a close approximation to the Icom protocol; if you have an unlisted Ten-Tec rig, or a listed Ten-Tec rig does not work properly, try a rig like the IC735 instead.

RADIO ONE UPDATE SECONDS
RADIO TWO UPDATE SECONDS

Values: Any integer

Default: 1

CTRL-J

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

RADIUS OF EARTH

Values: Any number

Default: 0

This parameter can be used to override the internal value of the Earth's radius that is used for distance calculations. Enter the new radius in kilometers. A value of 0 causes TR-LOG to use the default internal value (which is 6378.1370 km³).

³TR-LOG also corrects for the oblateness of the Earth.

Rig	Address (base 10)
IC 275	16
IC 475A/E/H	20
IC 575A/E/H	22
IC 707	62
IC 725	40
IC 726	48
IC 728	56
IC 729	58
IC 735	4
IC 736	64
IC 737	60
IC 738	68
IC 751A	28
IC 756	80
IC 761	30
IC 765	44
IC 781	38
IC 820H	66
IC 970	46
IC 1271 (needs UX-14)	36
IC 271 (needs UX-14)	32
IC 375	18
IC 471 (needs UX-14)	34
IC 1275	24
IC 7100	52
IC 9000	42
IC 746	86
IC R71 (needs UX-14)	26
IC R72	50
Omni VI	4 (The address for the Omni VI can be changed using the User Options Menu. The factory default is 4.

TABLE A.4: RECEIVER ADDRESSES

RANDOM CQ MODE

Values: TRUE or FALSE

Default: FALSE

CTRL-J

When this parameter is 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. Blank messages in F1 through F4 are ignored.

RATE DISPLAY

Values: QSOS or QSO POINTS

Default: QSOS

CTRL-J

The rate display can show either the rate at which you are making QSOS, or the rate at which your QSO points are increasing.

RELAY CONTROL PORT

Values: 1, 2, 3 or None

Default: None

This command is used to specify the port on which the relay control signal is located. 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 rig or the other. A high voltage output is used to indicate that radio one is active. All of the two-radio features can be used with this signal. Note that this same pin is also available as a pull up for the paddle input. You cannot use the same port for both functions.

REMAINING MULT DISPLAY MODE

Values: NONE, ERASE, HILIGHT

Default: HILIGHT

CTRL-J

This command allows you to control how the remaining multiplier display function 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 highlighted.

REMINDER

Values: See [section 5.7](#)

Default: None

Reminders are messages that are programmed to be displayed at certain times or when certain events occur. See [section 5.7](#) for details.

REPEAT S&P EXCHANGE**REPEAT S&P CW EXCHANGE****REPEAT S&P SSB EXCHANGE**

Values: Any text string

Default: None

The REPEAT S&P EXCHANGE is sent in place of the [S&P EXCHANGE](#) if the S&P EXCHANGE has already been sent once during this QSO. 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 that depend on your mode.

ROTATOR PORT

Values: SERIAL 1 to SERIAL 6

Default: None

This command is used to choose a serial port over which commands will be sent to the rotator control (which may be set with the [ROTATOR TYPE](#) command). To send the rotator to the direction for the country of a callsign in the Call Window, use the CTRL-P command.

ROTATOR TYPE

Values: DCU1, ORION or YAESU

Default: None

Sets the type of the rotator control.

RTTY PORT

Values: SERIAL 1 through SERIAL 6

Default: None

This command identifies the port to which an RTTY-capable TNC is attached.

RTTY RECEIVE STRING

Values: Any string

Default: CTRL-R

This command sets the string that is used to force the RTTY TNC into receive mode.

RTTY SEND STRING

Values: Any string

Default: CTRL-Y

This command sets the string that is used to force the RTTY TNC into transmit mode.

S&P EXCHANGE**S&P CW EXCHANGE****S&P SSB EXCHANGE**

Values: Any text string

Default: Depends on [CONTEST](#) parameter

The S&P EXCHANGE is sent when it is time to send your exchange in S&P Mode. This can be done by pressing F2, or <ENTER> when logging an S&P QSO. Use the S&P CW EXCHANGE and S&P SSB EXCHANGE commands to program different messages on the two modes.

SAY HI ENABLE

Values: TRUE or FALSE

Default: FALSE

CTRL-J

If you have programmed CW messages that include names from the TR-MASTER database, SAY HI ENABLE will determine whether the names are actually used. This allows you to program the messages with the names included, but to disable them all without having to edit each message. Refer to [subsection 5.3.2](#) for an explanation of how to include names in CW messages. Refer to [section 6.5](#) for more information on the TRMASTER database.

SAY HI RATE CUTOFF

Values: Integer

Default: 200

CTRL-J

If [SAY HI ENABLE](#) is TRUE, TR-LOG will cease to greet the other station when your rate exceeds the value of SAY HI RATE CUTOFF.

SCP COUNTRY STRING

Values: Comma-separated list of country prefixes

Default: None

CTRL-J

This command allows you to limit the stations that are displayed by the Super Check Partial function. Entering a comma-separated list of country prefixes (*e.g.*, K, VE, KL7, KH6, KP2, KP4) causes only stations from those countries to be displayed when performing the Super Check Partial function. The default is to list stations from all countries.

If you place a ! or - in front of the list of countries, then only stations in countries *not* in the list will be displayed by Super Check Partial.

SCP MINIMUM LETTERS

Values: 0, 3, 4, or 5

Default: 0

CTRL-J

When this parameter is non-zero, it enables the automatic Super Check Partial function. 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 [subsection 6.5.2.2](#) for more information on this feature.

SEND ALT-D SPOTS TO PACKET

Values: TRUE or FALSE

Default: FALSE

CTRL-J

Setting this parameter to TRUE causes TR-LOG to send a packet spot whenever you perform an ALT-D dupecheck on the second radio.

SEND COMPLETE FOUR LETTER CALL

Values: TRUE or FALSE

Default: FALSE

CTRL-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

CTRL-J

This parameter controls the point when a QSO is sent to the multi network. When it is FALSE, QSOs are passed onto the next computer when they scroll off the top of the editable log window. When it is TRUE, the QSOs are passed on as soon as they appear at the bottom of the editable window. See [section 6.10](#) for more details on multi operation.

SERIAL 5 PORT ADDRESS**SERIAL 6 PORT ADDRESS**

Values: Hex value

Default: 0 (zero)

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

SHIFT KEY ENABLE

Values: TRUE or FALSE

Default: TRUE

CTRL-J

The shift keys can be used to adjust the RIT and frequency of Kenwood and some Yaesu rigs. To disable this feature, set this parameter to FALSE.

SHORT INTEGERS

Values: TRUE or FALSE

Default: FALSE

CTRL-J

When this parameter is TRUE, TR-LOG will allow short abbreviations for some integers when they are sent as part of a QSO number. The actual abbreviations that are used can be programmed using the ALT-P command or the [SHORT 0](#), [SHORT 1](#), [SHORT 2](#), and [SHORT 9](#) commands.

SHORT 0

Values: Any character

Default: T

Defines the character to be sent instead of a 0 in a QSO number if [SHORT INTEGERS](#) is TRUE.

SHORT 1

Values: Any character

Default: A

Defines the character to be sent instead of a 1 in a QSO number if [SHORT INTEGERS](#) is TRUE.

SHORT 2

Values: Any character

Default: 2

Defines the character to be sent instead of a 2 in a QSO number if [SHORT INTEGERS](#) is TRUE.

SHORT 9

Values: Any character

Default: N

Defines the character to be sent instead of a 9 in a QSO number if [SHORT INTEGERS](#) is TRUE.

SHOW SEARCH AND POUNCE

Values: TRUE or FALSE

Default: FALSE

CTRL-J

When this parameter is TRUE, QSOs made in S&P Mode are marked in the log with a \$ after the QSO points.

SIMULATOR ENABLE

Values: TRUE or FALSE

Default: FALSE

CTRL-J

This command controls the contest simulator. See [section 6.6](#) for details on using the simulator.

SINGLE BAND SCORE

Values: 160, 80, 40, 20, 15 or 10

Default: None

This command can be used to force the score calculator to use the QSOs for only a single band.

If you change the value of the SINGLE BAND SCORE parameter during a contest, you will need to delete your RESTART.BIN file before restarting TR-LOG.

SINGLE RADIO MODE

Values: TRUE or FALSE

Default: FALSE

CTRL-J

When this parameter is TRUE, TR-LOG will not switch rigs when you use the ALT-R command.

SKIP ACTIVE BAND

Values: TRUE or FALSE

Default: FALSE

CTRL-J

If you are using two rigs and SKIP ACTIVE BAND is TRUE, TR-LOG will skip over the band to which the other rig is tuned when switching bands using the ALT-B or ALT-V commands.

SLASH MARK CHAR

Values: Any character

Default: /

CTRL-J

If you wish to use a different keyboard character to make the / mark, use this command to specify it. This is handy for some European keyboards.

SPACE BAR DUPE CHECK ENABLE

Values: TRUE or FALSE

Default: TRUE

CTRL-J

Normally when you press <SPACE> when a callsign is present in the Call Window, TR-LOG will perform a dupe check on the displayed callsign. If you press <SPACE> without a callsign in the window, you will be put into S&P Mode and your callsign will be sent. If you set SPACE BAR DUPE CHECK

ENABLE to FALSE, you will always go into S&P Mode and send your call, even if a call is present in the Call Window.

SPRINT QSY RULE

Values: TRUE or FALSE

Default: Depends on [CONTEST](#) parameter

CTRL-J

If this parameter is TRUE, TR-LOG will automatically enter CQ Mode after completing a QSO in S&P Mode. This parameter is automatically set to TRUE when the Sprint contest is selected. See [subsection 6.18.1](#) for more information on operating the Sprint. *You should not set this variable to TRUE unless you are operating the Sprint.* For similar (but not quite identical) behaviour in other contests, see the [AUTO S&P ENABLE](#) command.

START SENDING NOW KEY

Values: Any key

Default: ‘ (the open-single-quote key, *not* the apostrophe)

If you are running stations on CW and a station that has answered you has already finished sending his call, but you have not yet finished typing his call, you can press the START SENDING NOW KEY. This will send the characters you have already typed, and also the ones that you type after hitting the key, until you press <ENTER>. After pressing <ENTER>, the normal exchange will be sent.

You may set the START SENDING NOW KEY to the <SPACE> key with the command:

START SENDING NOW KEY = SPACE

If the cursor is in the Call Window, then the space bar only causes sending to begin if there is at least one character in the window.

STEREO CONTROL PIN

Values: 5 or 9

Default: 9

This command sets the number of the pin to be used for controlling stereo on the [STEREO CONTROL PORT](#). If you use pin 5, then you cannot use the same port for controlling a DVK; if you use pin 9 then you cannot use the same port for band output.

STEREO CONTROL PORT

Values: 1, 2 or 3

Default: None

This command sets the number of the parallel port to which is attached a stereo-enabled device such as a WBX SO2R or ZS4TX Super Combo Keyer II.

STEREO PIN HIGH

Values: TRUE or FALSE

Default: FALSE

CTRL-J

This command sets the state of the [STEREO CONTROL PIN](#) on the [STEREO CONTROL PORT](#). The value may be toggled with the function key command TOGGLESTEREOPIN.

SWAP PACKET SPOT RADIOS

Values: TRUE or FALSE

Default: FALSE

CTRL-J

When this parameter is TRUE, TR-LOG reverses which rig receives a packet spot when CTRL-U and the left/right cursor keys are used. This is useful if your station is configured such that your rig number 2 is physically on the left.

SWAP PADDLES

Values: TRUE or FALSE

Default: FALSE

CTRL-J

This parameter swaps the dit and dah inputs on the paddle port. This is handy if your paddle is wired backwards.

SWAP RADIO RELAY SENSE

Values: TRUE or FALSE

Default: FALSE

CTRL-J

When this parameter is TRUE, TR-LOG reverses the polarity of the relay for controlling the radio.

TAB MODE

Values: NORMAL or CONTROLF

Default: NORMAL

CTRL-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 CTRL-F key does); in addition, SHIFT-TAB moves the cursor to the start of the prior word, just like the CTRL-A key.

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 6.1](#) for more information.

TAIL END MESSAGE**TAIL END CW MESSAGE****TAIL END SSB MESSAGE**

Values: Any string

Default: R

The TAIL END MESSAGES are sent if you complete a contact by pressing the [TAIL END KEY](#), which is used to answer a call from a tail-ender. Use TAIL END CW MESSAGE and TAIL END SSB MESSAGE if you want to send different messages on the two modes.

TEN MINUTE RULE

Values: NONE or TIME OF FIRST QSO

Default: NONE

CTRL-J

This parameter selects the mode for the ten minute rule. The TIME OF FIRST QSO mode will cause the elapsed time since your first QSO on the active band to be displayed.

TOTAL SCORE MESSAGE

Values: See [section 5.7](#)

Default: None

These messages are displayed when your score has reached a certain level. See [section 5.7](#) for more details.

TUNE ALT-D ENABLE

Values: TRUE or FALSE

Default: FALSE

CTRL-J

If this parameter is TRUE, then the following behaviour occurs: if you are in CQ Mode on the active radio, then as you tune the inactive radio, calls from the bandmap (if not dupes) are automatically entered so that they can be worked with the ALT-D command. This saves you from having to enter the calls manually.

TUNE WITH DITS

Values: TRUE or FALSE

Default: FALSE

CTRL-J

If this parameter is TRUE, TR-LOG sends a string of dits at 75 WPM when CTRL-LEFT-SHIFT is pressed.

TWO RADIO MODE

Values: TRUE or FALSE

Default: FALSE

CTRL-J

When this parameter is TRUE, TR-LOG is in two radio mode. See [section 6.2](#) for more details.

UNKNOWN COUNTRY FILE ENABLE

Values: TRUE or FALSE

Default: FALSE

This parameter controls the generation of the unknown country file. This file will list all the QSOs with callsigns for which TR-LOG cannot determine the country. This is a good way to find calls that might be new multipliers for you. By default, the file is named UNKNOWN.CTY, but you can change the name of the file with the [UNKNOWN COUNTRY FILE NAME](#) command. You can also find unknown countries after the contest using the Multiplier Check procedure in POST.

UNKNOWN COUNTRY FILE NAME

Values: Any valid filename

Default: UNKNOWN.CTY

TR-LOG will save log entries for QSOs with unknown countries to the named file if **UNKNOWN COUNTRY FILE ENABLE** is TRUE.

UPDATE RESTART FILE ENABLE

Values: TRUE or FALSE

Default: TRUE

CTRL-J

This parameter controls whether the **RESTART.BIN** file is automatically updated after each contact, or only when exiting the program. The **RESTART.BIN** file allows TR-LOG to restart quickly, without having to read the **LOG.DAT** file. When this parameter is TRUE, the **RESTART.BIN** file will be updated after every contact. Otherwise, it will be updated only when you exit the program. Refer to [section 6.7](#) for more information on the **RESTART.BIN** file. There is also a report in POST that will show you the contents of the **RESTART.BIN** file.

USE BIOS KEY CALLS

Values: TRUE or FALSE

Default: TRUE

CTRL-J

This parameter controls whether TR-LOG uses BIOS calls or receives commands from the keyboard via hardware calls. With most modern computers, you should never need to change this value. However, if you find that TR-LOG does not recognise your F11 and F12 keys, try setting the value to FALSE.

USER INFO SHOWN

Values: NONE, CHECK, CQ ZONE, SECTION, CUSTOM, NAME, ITU ZONE, FOC NUMBER, QTH, OLD CALL, SECTION, GRID, USER 1, USER 2, USER 3, USER 4, USER 5

Default: NONE

CTRL-J

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 display them in any order.

VGA DISPLAY ENABLE

Values: TRUE or FALSE

Default: FALSE

CTRL-J

When TR-LOG starts with the visible dupesheet or bandmap are enabled, the program will switch to VGA mode if and only if this parameter is set to TRUE in the LOGCFG.DAT file.

VHF BAND ENABLE

Values: TRUE or FALSE

Default: Depends on [CONTEST](#) parameter

CTRL-J

When set to TRUE, TR-LOG 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: Depends on [CONTEST](#) parameter

CTRL-J

When this parameter is TRUE, TR-LOG will enable a dupesheet of your contacts 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 bandmap, the dupesheet will appear below the normal operating screen, with room for more calls.

Initially, the dupsheet will show the calls by call area in separate columns. If more than two columns run over with more 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, QSO and multiplier information windows are disabled. The dupesheet also overwrites the multiplier totals. To view this information, use the ALT-E command to start the editor, and then press <ESC>. Pressing <ESC> again will rewrite the dupesheet.

Since the visible dupesheet is almost a necessity to operate the Sprint efficiently, it is enabled automatically for that contest. Otherwise, the default feature is turned off by default.

WAIT FOR STRENGTH

Values: TRUE or FALSE

Default: TRUE

CTRL-J

When you use the [character in a CW message, TR-LOG will allow you to enter the strength of an RST report 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: Integer

Default: 0 (= disabled)

CTRL-J

TR-LOG can keep track of how many minutes have passed 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: Depends on [CONTEST](#) parameter

CTRL-J

This command allows you to operate on 30, 17 and 12 metres. The default is FALSE, unless you are in General QSO mode.

WEIGHT

Values: 0.5 to 1.5

Default: 1.0

CTRL-J

This command controls the weight of the CW generated by the computer. For example, a value of 1.05 will add 5 percent to the duration of each dot and dash.

WILDCARD PARTIALS

Values: TRUE or FALSE

Default: TRUE

CTRL-J

This command controls the working of the partial call function. When this parameter is 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 perform a partial call check with the prefix or the suffix, instead of only with 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

CTRL-J

This parameter adjusts the amount of time that TR-LOG waits for a response from a connected Yaesu rig before giving up. The default value of 100 milliseconds seems sufficient for all current radios. However, if you are having problems connecting to a Yaesu rig, you might try increasing this value.

ZONE MULTIPLIER

Values: See [subsection 5.5.1](#)

Default: Depends on [CONTEST](#) parameter

This parameter tells TR-LOG how to handle the zone multipliers. It is normally set up by the [CONTEST](#) statement in your LOGCFG.DAT file. See [subsection 5.5.1](#) for more details.

Appendix B

Suggested Interface Circuits

DB-25 Pin	DB-9 Pin	Signal
2	3	Serial output from CPU
3	2	Serial input to CPU
7	5	Ground

Table B.1: TNC/Radio/Network Wiring

DB-25 Pin	DB-9 Pin	Signal
20	4	CW key output (use circuit A)
4	7	PTT out (use another circuit A)
7	5	Ground

Table B.2: CW Interface

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: Connect pin 6 to 8; connect pin 4 to 5;

DB-9: Connect pin 1 to 6; connect pin 4 to 7.

It has also been reported that some rigs (notably the Kenwood TS-870) require that the CTS and RTS lines be carried between the rig and the computer. On a DB25, these are pins 4 and 5; on a DB9 they are pins 7 and 8.

The next two pages contain details of an adapter from NØSS. Please contact NØSS at nøss@earthlink.net for details about contact negatives. Thanks to NØSS for the bitmap files used to generate these two pages.

DB-25 Pin	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).
4	DVK output #2
5	DVK output #3
6	DVK output #4
7	External relay band output bit 1 / DVK output #5
8	External relay band output bit 2 / DVK output #6
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 V 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 to control an external relay to switch between two transmitters. See RELAY CONTROL PORT for more information
15	Foot switch input. See FOOT SWITCH PORT 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 rig)
25	Ground for paddle

Table B.3: Parallel Port Interface

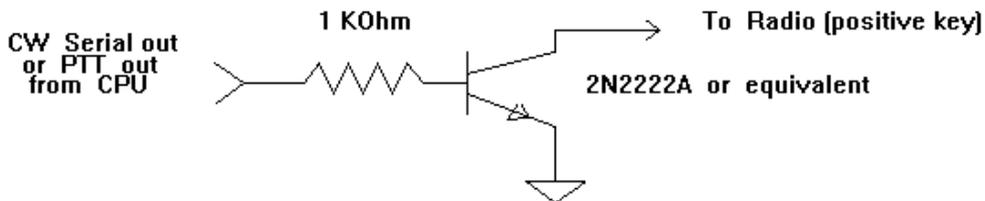


FIGURE B.1: CIRCUIT A; USE THIS FOR SERIAL PORT CW AND PTT

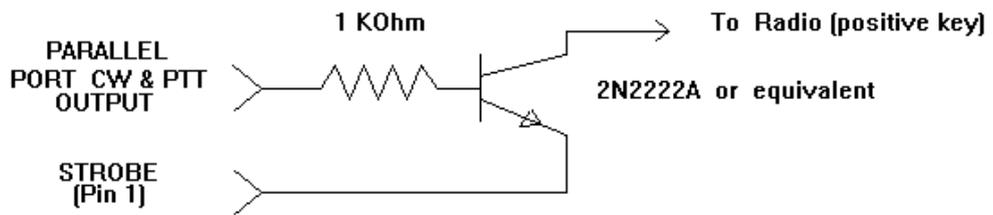


FIGURE B.2: CIRCUIT B; USE THIS FOR PARALLEL PORT CW AND PTT

Parallel Port CW and PTT Keying Adapter and Paddle Input for TRLog Keyer

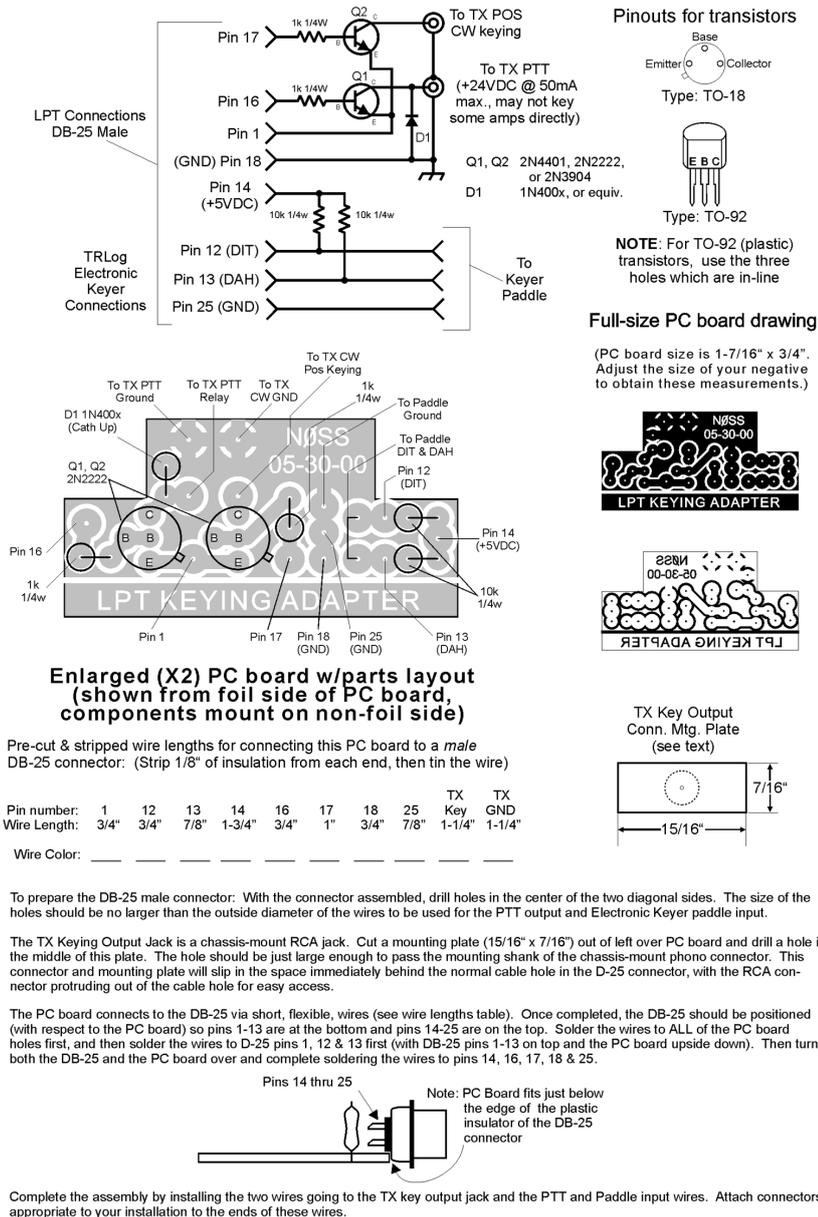


FIGURE B.3: PARALLEL PORT CW AND PTT KEYING ADAPTER AND PADDLE INPUT FOR INTERNAL KEYS FROM NØSS

NOTE: if you use a METAL (or a 'METALIZED' plastic hood), BE SURE TO place some form of insulator between the top AND bottom of the PC board and the metal inside of the hood to prevent the components from shorting to the hood. NON-METALLIC hoods are strongly recommended!

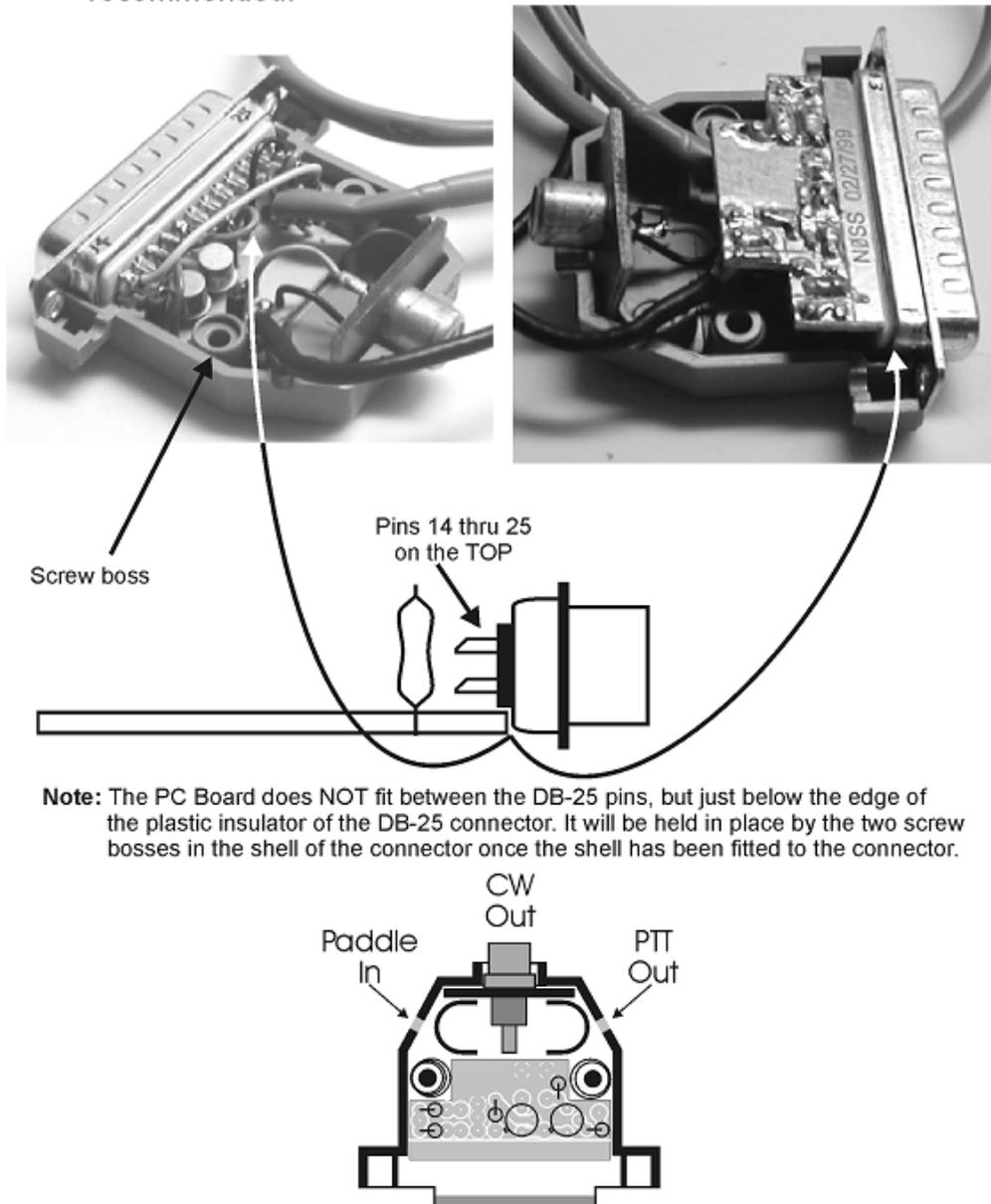


FIGURE B.4: PARALLEL PORT CW AND PTT KEYING ADAPTER AND PADDLE INPUT FOR INTERNAL KEYER FROM NØSS - PAGE 2

Appendix C

W9XT Contest Card Modifications

The W9XT card comes standard with a CW output port. It can be modified to include PTT support and to allow connection of your paddle. These instructions in this appendix 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.*

C.1 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:
 - (a) U12-1 to U12-6.
 - (b) U12-2 to U12-3 to U10-7.
 - (c) U12-4 to U12-9.
 - (d) U12-10 to U12-11 to U12-12.
 - (e) U12-13 to R8 (the end towards the gold fingers)

This modification has been tested with **TR-LOG** and **NA**. Other programs, both radio related and others, could cause your transmitter to become keyed. Use at your own risk!

C.2 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:
 - (a) J1 pin 17 to the DOT contact on your keyer paddle
 - (b) J1 pin 18 to the DASH contact on your keyer paddle

- (c) 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.

Appendix D

Notes from VE3IAY on RTTY Operation

The following is an extract from a posting to the TR-LOG reflector made by VE3IAY on 14 October, 2001. This extract is reproduced here with his permission. It has been reformatted for this manual, but is otherwise reproduced verbatim.

D.1 How do you set TRLog up for RTTY?

Let's assume you already have a TNC or TU hooked up to a serial port, so the question really is: how do you set up LOGCFG.DAT to use the TNC?

I started out from my LOGCFG.DAT file for the CW Sprint. First, you need to add the following two lines:

```
DIGITAL MODE ENABLE = TRUE
RTTY PORT = SERIAL 1
```

assuming your TNC is connected to COM1. As far as I can tell, the RTTY port in TR-LOG is fixed at 4800 baud, so you may have to reprogram your TNC's data rate to match (unless it has an autobaud feature).

You should probably add:

```
BAND MAP ENABLE = FALSE
VISIBLE DUPESHEET = FALSE
```

as the TNC incoming and outgoing data uses up the space where either of these would appear. It may be possible to have two of these windows active in the same LOGCFG.DAT file, but my guess is that you would have on-screen interference between the visible dupesheet and the TNC window. In a multi-mode contest like Field Day, you might want to use the band map in CW and SSB, and only have the TNC window active in RTTY, but this may be

one of those “rough edges” that only sort of works.

Add:

```
LEADING ZEROS = 3
LEADING ZERO CHARACTER = 0
SHORT INTEGERS = FALSE
```

so your serial number exchanges come out as expected (cut numbers or short integers like ATN for 109 don't make any sense in RTTY). Three-digit serial numbers take marginally longer than shorter ones, but they are more predictable and stand out better in noisy conditions.

The next set of changes applies only to the RTTY Sprint, not to other RTTY contests. This is because you are allowed to work dupes in this contest, provided there are at least three intervening QSOs in both logs (what I did during the contest was check whether the call sign was visible in TRLog's on-screen log window, figuring that if it was, we were too close - that beat figuring out whether there were 2, 3 or 4 intervening QSOs).

```
AUTO DUPE ENABLE CQ = FALSE
AUTO DUPE ENABLE S AND P = FALSE
SPACE BAR DUPE CHECK ENABLE = FALSE
DUPE SHEET ENABLE = FALSE
```

There will also be changes needed to the various memories and messages, but I'll leave that for the moment. First, we need to make sure that the hardware setup will work.

D.2 Checking out the hardware

For various reasons, I run TR-LOG in a DOS box under Windows 98. I'm not sure why this is, but many DOS programs (including TR-LOG and WF1B RTTY) don't seem to be able to see the serial ports on my machine unless I “precondition” the ports by running yet another DOS program, Hyperlog, first. If I don't run Hyperlog first, TRLog will freeze on startup when it fails to find the radio interface. Sometimes Hyperlog fails on the first try, too, but somehow a second try with Hyperlog always works, where a second try with the other programs does not - don't ask me why, ask Microsoft. If I run a Windows program that uses the com port in question, then I will have to repeat the preconditioning step before running TR-LOG. For all I know, I'm the only person in the world with this particular problem, but anyway...

Use ALT-M to change modes until you are in digital mode. That switches my TS-850 into FSK mode. I don't know whether TR-LOG can support AFSK. (Tree: would it be possible to implement an option that would put the radio into either USB or LSB when TR-LOG is in digital mode, for those who want

to use AFSK?). By the way, for some reason the band up and band down commands (*ALT-B* and *ALT-V*) don't work in digital mode. You can either do your bandswitching on the radio, or change to CW or SSB to switch bands, then change back to digital.

If you've got the serial ports working, when you switch the TNC on you should see something, even if it's only rubbish, in the TNC window. When you press F10 when *TR-LOG* is in digital mode (as distinct from CW or SSB), anything you type after that is sent to the TNC. This includes the *<ENTER>* key, which does not terminate keyboard input (unlike CW). This is a good thing, because you will probably need to be able to send a carriage return to the TNC without terminating the keyboard input. The only way to terminate keyboard input is to press the *<ESC>* key (F10 doesn't take you out of keyboard input).

With my MFJ-1278, after pressing F10 and turning the TNC on, I have to press Enter a few times to get the TNC to recognize the baud rate. I then enter the commands needed to put it into the correct configuration: *MODE HB, 45* to select RTTY, *RADIO 2* to select the HF radio, and *K* to take the TNC out of its command mode, before pressing *<ESC>*. Other types of TNC or TU will have commands with similar functions, as appropriate. You may have to specify the *RTTY SEND STRING* and *RTTY RECEIVE STRING* parameters appropriate to your TNC as well. The defaults work with the MFJ.

If all this works, you should be able to tune to an RTTY signal and see it in the TNC window. One very nice feature in *TR-LOG* is a small window at the bottom that shows the same incoming characters in the other figures/letters mode. This will translate all those annoying TOO PPQ exchanges that happen when the sent FIGS character is hit by noise into 599 001 and so on.

To transmit, you can just hit F10 and start to type. Press *<ESC>* to go back to receive mode.

D.3 Programming *TR-LOG*'s memories

There are two aspects of RTTY that are different from CW and affect how you program the memories.

The first is that when there is no signal, the other guy's TNC will probably convert random noise into random characters, or "garble". To separate your message clearly from the garble, it's a good idea to start and end your messages with a space or two, or even a carriage return. *TRLog* ends its messages with a carriage return, but the RTTYer's habit of ending all messages with a space and one or two K's is probably not a bad idea either, in

case the CR gets hit by a noise burst. It's also a good idea not to make your messages too short, or they will be lost in the garble.

The second is that there is no way to identify who sent a message from the sound alone, as there often is in CW. This suggests that more messages should include your call sign than would be the case in CW.

In CW, you can begin and end messages with `_` to force TR-LOG to insert a space. Unfortunately, this doesn't work in RTTY; the `_` is passed through to the TNC, which will probably ignore it (there is no such character in the Baudot character set). Some of the other special characters used in CW messages don't work either (`^`, `+`, `<`, `=`, `!` and `&`). The control characters in Table 3 of the manual seem to work, but the ones to control speed, weight and various length dits and dahs do not work. They are passed on unchanged to the TNC, and may have undesired effects, so it is best to remove them from the programmed messages.

You can insert special characters in CQ MEMORIES F1-F9 and EX MEMORIES F3-F9 by using the `<xx>` syntax. I have found `<20>` (space) and `<0D>` (carriage return) to be useful. However, these do not work in the "Other" messages (Alt-P-O menu); they get passed through to the TNC, except for the `>` which zeros your radio's RIT.

Some useful messages from my RTTY Sprint config file:

- CQ EXCHANGE = DE \ # name state K

(in some software, the DE tags the following word as a call sign, which can speed up the other guy's response, and the trailing K separates your exchange from garble. TR-LOG automatically sends the other station's call sign and a space before this message.)

- S&P EXCHANGE = @ NR # name state DE \ K

- QSL MESSAGE = @ QSL DE \ QSY K

(unlike CW, where a simple EE or R or TU will do the job, in the RTTY Sprint most stations were using some variant on the above QSL message. In a non-Sprint contest, you would put QRZ? in place of the QSY).

- CQ MEMORY F3 = <20>) NR # # name name state state DE \ K

- EX MEMORY F3 = <20>@ NR # # name name state state DE \ K

The reason for the last two is that the F2 exchange memory does not work in TR-LOG's RTTY mode. That means there is no way to send the [REPEAT S&P EXCHANGE](#). My solution to this problem was to program it into the F3 memories as above.

I also programmed short messages to resend the exchange elements into EX MEMORIES F4-F6, and queries asking for repeats of the same elements into CQ MEMORIES F4-F6. That took care of most requirements for fills, and you can take care of the rest (questions in EX mode and fills in CQ mode) with ALTF4-ALTF6. As usual, in both EX and CQ I used F9 as a general repeat request.

The default CQ messages in CQ MEMORIES F1 and F2 needed a bit of work. The ALT-A and ALT-B don't do any harm (they're there for SO2R), but the ALT-F and ALT-S should be removed, and the ^ changed to a full space.

D.4 During the Contest

I changed the font in the DOS window to a size that left a bit of room on my screen (6x10), and substituted single-prescription reading glasses for my normal varifocals so I could read the computer screen better. Then I opened up MMTTY and sized its window to fit beside the TR-LOG window. That gave me some additional tuning aids, as well as two different decoders working on the same received signal. Most of the time, if one of them garbled the incoming signal, the other one supplied the missing information, and if not, well, that's when you ask for fills.

Overall, I'm pretty happy with the way the computer setup worked (how the rest of my station works in the Sprint is a different story!), except that I wish the F2 function key in exchange mode worked the way it does in CW. I'll probably use this setup again in other RTTY contests where TR-LOG can handle the scoring. If there are any with unusual scoring (ANARTS springs to mind), well, I still have a copy of WF1B RTTY, and I can try to set that up to work as similarly as possible to TR-LOG.

D.5 After the Contest

I had

```
LOG FREQUENCY ENABLE = TRUE
SHOW SEARCH AND POUNCE = TRUE
```

in my config file, as I find the information they add useful for analysis.

To remove the effects of the first one, I ran POST /L/C and renumbered the QSOs. I then renamed the original LOG.DAT to LOGFREQ.DAT, and the new LALLBOTH.DAT to LOG.DAT. Then I ran POST /C to produce the Cabrillo file LOG.CBR. One tiny fixup: the CONTEST: line in the Cabrillo file pro-

duced by `POST` read `NA-SPRINT-RY`. There is no name specified for this contest in the official Cabrillo spec, but the `WT4I` Cabrillo tools software uses `NA-SPRINT-RTTY`, as does some of my own log processing software, so I edited the file to make this change.

To get my contest log into my general station log, I used two more programs. `CBRFRFIX` puts the frequency information from `LOGFREQ.DAT` back into the Cabrillo file, and `CBR2ADIF` converts the Cabrillo file into ADIF, while adding a few fields that aren't in the Cabrillo file. These programs are at <http://www.storm.ca/~ve3iay/cbr2adif.html>, if anyone is interested. The version of `CBR2ADIF` that was at that site before this morning doesn't handle the received name properly in the RTTY NA Sprint, but that bug has now been fixed.

Appendix E

Notes

Changes from prior released version (changed section numbers in square brackets):

- Synchronised to TR-LOG 6.79 [Various]
- Complete review of contents [Many]
- Synchronised to TR-LOG 6.74 [Various]
- Synchronised to TR-LOG 6.73 [Various]
- Synchronised to TR-LOG 6.72 [Various]

A heartfelt thank you goes to all those who contributed comments on beta versions of this manual. I must give a special mention to N7MH, whose incredibly careful reading and detailed comments substantially improved the quality of this manual.

Appendix F

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