Short Wave Log

Version 1.00

User's Guide

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Acknowledgements

Without beta-testers, this program would still be sitting unfinished in the depths of a hard drive. Thanks to all the beta-testers who not only gave me great suggestions, but also found those elusive bugs.

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Introduction

Many listeners of international radio log the stations that they have heard. By keeping a logbook, the short wave listener can have a record of his listening activity. With personal computers now affordable to almost everyone, some listeners store their records in a database such as dBASE® or Paradox® or a shareware package. This requires the listener to not only purchase the database, but also to learn the database language. The Short Wave Log program allows the listener to enter his logs directly into a database and harness the power of a database without the cost and time of purchasing and learning a database.

What exactly does the Short Wave Log program do? Each record of a listener's logbook corresponds to a record in a database table. The table is indexed so that the listener can sort and print his logbook by:

- date and time
- frequency
- station name
- transmitter location.

In addition to storing the log entries, Short Wave Log also prints reception reports in a variety of languages. The currently supported languages are English, German, and Swedish. More languages will be added in subsequent updates.

Hardware and Software Requirements

Short Wave Log runs on the IBM PC/XT and the rest of the IBM PC family using the Intel 8086/8088/80286/*i*386/*i*486 CPU's. At least 384 kB of conventional memory is required. A Monochrome, Hercules, CGA, EGA, or VGA monitor may be used as Short Wave Log runs on any 80 column monitor. A hard disk is required, and at least 2 ½ MB of free disk space is recommended.

MS-DOS 3.00 or later is required. Short Wave Log fully supports the MS-DOS international language character sets; however, MS-DOS 3.30 or later in required for these functions. Certain functions, such as the QSL Writer, cannot be run with versions of MS-DOS prior to 3.30.

Short Wave Log is written to take direct advantage of the DESQview™ multitasking system. When running under DESQview™, all screen writes are written to the logical screen buffer. Therefore the "Writes Directly to the Screen" option can be set to "No" even on 8086/8088/80286 machines. (Note that on pre-80386 systems there might not be enough available memory to run the program without hardware EEMS memory.)

Development Notes

Short Wave Log was born as a dBASE® and later a FoxPro™ application. These versions were used to develop the basic design. To make the program fast enough to run on all flavors of the IBM PC, it was ported to Turbo C® / Turbo Assembler® with the Paradox® Engine providing the database routines. Video routines are provided by the CXL™ library.

Installation

Because of the number of archive programs available for the IBM PC and compatibles, Short Wave Log may arrive packaged in any format. To extract the file from the archive, follow the instructions of the archiving program. Once the files have been extracted to a subdirectory (e.g. `C:\SWLOG`), the program is ready to run.

Upon starting the program for the first time, Short Wave Log creates the SWL table, where the log entries are stored. After the SWL table is created, all the tables must be keyed. This can take anywhere from one to fifteen minutes, depending on the speed of the machine and hard drive. After the initial keying of tables, the program is ready to run.

Registration and Support

Short Wave Log is distributed as shareware. It is not and never has been in the public domain. You may freely distribute Short Wave Log as long as the archive is kept in tact.

You are free to use the program on a trial basis. If you find the program useful, please send $20 (check or money order) to Lee Consulting, P.O. Box 71301, Pittsburgh, PA 15213.

With registration you will receive a printed copy of the manual, the latest version of the program, and support via either e-mail or telephone. More importantly, you will receive notification of updates and new versions.

All questions and comments can also be sent to the CompuServe account 71251,1407.

Demo vs Registered Versions

The demonstration and registered versions of Short Wave Log are identical with one exception:

> The "please register me" message only appears in the demonstration version.

Environment Variable

Short Wave Log needs to know the time zone. The MS-DOS environment variable TZ must be set in the form TZ=XXX##YYY, where XXX is the three letter abbreviation for standard time, YYY is the three letter abbreviation for summer (daylight savings) time, and ## is the number of hours ahead or behind Coordinated Universal Time. For the Eastern time zone of the United States and Canada, set TZ=EST5EDT.

Command Line Options

Short Wave Log is run by executing the program `SWLOG`. The program supports five command line options:

```
/b          BIOS screen writes
/c          CGA snow elimination
/l          LOCAL time display
/m          Use MHz instead of kHz
/o          MONO text attributes
```

The BIOS option is used to send screen writes to the BIOS rather than directly to the screen. The CGA option is used on old CGA monitors when snow or sparkles appear. Choose the LOCAL option to change the clock from UTC to local time. The MHz option changes the frequency readout from

the default kHz to MHz. This is useful if Short Wave Log is also used to log VHF and UHF frequencies (e.g. 162.550 MHz). Note that this option changes the default for the entire program. All exports, printouts, and searches are formatted for MHz. If a file is imported, its frequencies are assumed to be in MHz. The MONO option is for VGA monochrome monitors.

Welcome Screen

Once the program is started, the initial welcome screen and copyright notice is displayed. To remove the message, press any key or wait a few seconds until the delay is over. If running the demonstration version, a "please register me" screen is displayed.

After the welcome screen disappears, the program is ready for use. On the top of the screen is a four-part menu and a clock, which by default displays the current time in UTC. The main menu is divided into five sub-menus:

System Redisplay the welcome screen, shell to DOS, display information about the system, and quit the program.

Freqlist Append, edit, delete, and print the records in the FREQLIST table.

Logfile Append, edit, delete, and print the records in the LOGFILE table.

Stations Append, browse, edit, delete, and print the records in the STATION table.

Utils Export the tables to CSV files; Import data from CSV or dBASE™ III files; Generate a reception report; rekey the tables; change the time zone for the clock.

System Menu

General information about the program and computer is accessed through the system menu. There are four choices to the system menu:

About This function shows the welcome message that appeared upon first entering the program. The current version of the program is displayed.

OS Shell This function temporarily exits the program and presents the user with his normal DOS prompt. While in DOS, the user may issue any DOS command. Note however that if any of the program's files are changed or deleted, irreparable damage may be inflicted to the tables.

Sys. Info This function shows various details about the system such as the type of CPU and coprocessor, the amount of free and used conventional, EMS, and XMS memory, and, if present, the current version of DESQView™. Currently the program detects but does not use EMS or XMS memory.

Quit This function quits the program by closing all open files and reallocating all used memory. This is the only safe way to exit the program. It is not safe to exit be rebooting or turning off the computer since this may destroy all or part of the tables. The program may be quit at any time by using the Alt-X key combination.

Freqlist Menu

Access to the FREQLIST table is obtained via the freqlist menu. FREQLIST is a Paradox® table with the following structure:

```
Khz       N
Station   A35
Location  A35
Kw        N
```

The FREQLIST table is used to aid the entering of a record into the LOGFILE table. For example, say the BBC on 9590 kHz is being entered into the LOGFILE table. The program maps 9590 kHz into the FREQLIST table and finds all matching entries. Both the BBC and Radio Netherlands are found. The user then chooses the correct station and the program presents the user with the corresponding information for the transmitter location and power. If no matches are found, then the user is simply not presented with any suggestions. If the suggestions are incorrect, the user need only press the **Escape** key to disregard them.

Short Wave Log is shipped with a FREQLIST table containing approximately 400 records. The frequencies are current for the summer of 1991.

There are four choices to the freqlist menu:

Append This function appends records to the FREQLIST table. Once selected, the user is presented a form in which to enter data.

Edit/Delete This function edits and deletes existing records in the table. The program maintains keys, or indexes, to the table. Prior to entering the edit form, the user is prompted to choose the desired key and enter the search data. The corresponding record is then found in the table.

Print This function prints the table to the file `FREQLIST.LOG`. The output is sorted according to one of the table's keys: frequency, station name, or transmitter location.

Char Set This function determines whether the Print Freqlist function uses 7- or 8-bit ASCII characters. While all PC's can display 8-bit characters, some printers cannot.

The **Append** and **Edit/Delete** functions share the same form; however, the **Edit/Delete** form has additional commands to allow the user to move from record to record. While in either function, the **Escape** key aborts the function. The commands specific to the **Edit/Delete** function follow:

F2 Choose a new search key.
F3 Delete the current record.
F9 Go to the first record in the table.
F10 Go to the last record in the table.
PgUp Go to the previous record.
PgDn Go to the next record.

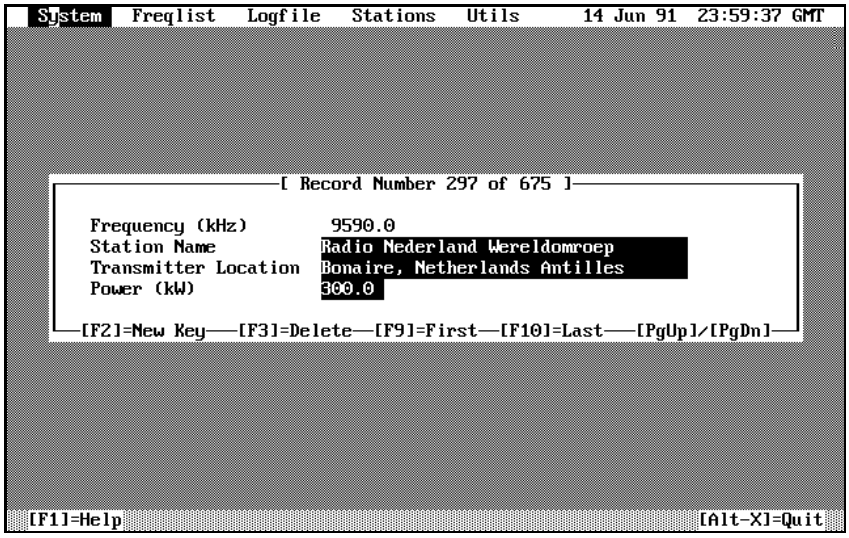

Figure 1 The FREQLIST edit screen.

Logfile Menu

Access to the LOGFILE table is obtained via the logfile menu. LOGFILE is a Paradox® table with the following structure:

```
Date      D
Gmt       A4
Khz       N
Mode      A4
Sinpo     A5
Station   A35
Location  A35
Kw        N
Language  A2
Detail1   A50
Detail2   A50
Detail3   A50
```

The LOGFILE table is used to store the user's logs. When entering a record, the user is presented with pop-up windows for the mode, station name, transmitter location, power, and language. The suggestions for the station name, transmitter location, and power pop-up windows come from data in the FREQLIST table. If there are no corresponding matches in the FREQLIST table, then there is no pop-up window. If the suggestions are incorrect, the user need only press the **Escape** key to disregard them.

As with the FREQLIST menu, there are four choices to the LOGFILE menu:

Append This function appends records to the LOGFILE table. Once selected, the user is presented with a form in which to enter the records.

Edit/Delete This function edits and deletes existing records in the table. The program maintains keys, of indexes, to the table. Prior to entering the edit form, the user is prompted to choose the desired key and enter the search data. The corresponding record is then found in the table.

Print Key This function prints all records matching a key to the file LOGFILE.LOG. The tables must be keyed for this function to work correctly.

Print This function prints the table to the file `LOGFILE.LOG`. The output is sorted according to one of the table's keys: date and time, frequency, station name, or transmitter location.

Char Set This function determines whether the Print Freqlist function uses 7- or 8-bit ASCII characters. While all PC's can display 8-bit characters, some printers cannot.

The **Append** and **Edit/Delete** functions share the same form; however, the **Edit/Delete** form has additional commands to allow the user to move from record to record. While in either function, the **Escape** key aborts the function. The commands specific to the **Edit/Delete** function follow:

F2 Choose a new search key.
F3 Delete the current record.
F9 Go to the first record in the table.
F10 Go to the last record in the table.
PgUp Go to the previous record.
PgDn Go to the next record.

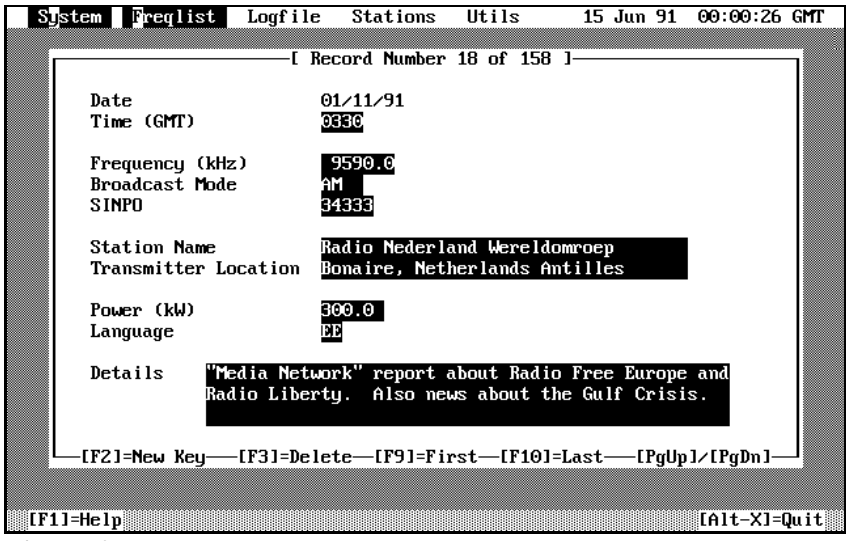

Figure 2 The LOGFILE edit screen.

Stations Menu

Access to the STATION table is obtained via the stations menu. STATION is a Paradox® table with the following structure:

```
Name      A35
Address1  A35
Address2  A35
Country   A35
```

The STATION table is used to store the names and addresses of radio stations. Because of the memory limitations imposed by the **Display Stations** function, the number of records is limited to 500.

There are five options to the STATION menu:

Append This function appends records to the STATION table. Once selected, the user is presented with a form in which to enter the records.

Edit/Delete This function edits and deletes existing records in the table. Prior to entering the edit form, the user is prompted for the name of the station that he wishes to change.

Display This function presents a pop-up window containing the names of the stations in the table. When a name is chosen, the corresponding address is displayed in a window.

Print This function prints the table to the file `STATION.LOG`. Output is sorted according to the station name.

Char Set This function determines whether the Print Stations function uses 7- or 8-bit ASCII

characters. While all PC's can display 8-bit characters, some printers cannot.

The **Append** and **Edit/Delete** functions share the same form; however, the **Edit/Delete** form has additional commands to allow the user to move from record to record. While in either function, the **Escape** key aborts the function. The commands specific to the **Edit/Delete** function follow:

F2	Choose a new search key.
F3	Delete the current record.
F9	Go to the first record in the table.
F10	Go to the last record in the table.
PgUp	Go to the previous record.
PgDn	Go to the next record.

Figure 3 The Display Stations screen.

Utils Menu

Contained in the utils menu are functions that do not fit in the other menus.

There are five choices to the utils menu:

Export This function exports the data from the FREQLIST, STATION, and SWL tables into CSV (Comma Separated Values) files. The CSV files can then be imported by another database or spreadsheet. The fields are in the same order as described above.

Import This function imports data from a CSV or dBASE™ file into the corresponding tables (i.e. the data in a SWL.DBF file will be imported into the SWL table). Both the CSV and DBF files must be in a specific format. The required format for each table can be found in the on-line help.

QSL Writer This function writes a reception report (a QSL request) in a number of foreign languages. Currently Short Wave Log writes reports in English, German, and Swedish. More languages will be added in subsequent updates.

When this function is selected, the user is presented with two forms. In the first form, the user enters his name and address, the name and address of the station, the date, time, and frequency of the broadcast, the quality of the signal strength, background noise, and overall transmission quality of the broadcast. Finally the user chooses the desired language for the report. A list of stations from the STATION table is presented in a pop-up window for the station name field. If a station is chosen, its

address is placed into the appropriate fields of the form.

In the second form the user enters details about the program that he has heard. If he chose a language other than English, he is presented with a pop-up window of program details. The chosen program detail is translated into the appropriate language.

This is only meant as an aid to a foreign language QSL and, as always, the reception report should be proofread and contain as much detailed information as possible.

When both forms have been completed, the reception report is written to an ASCII disk file. Note that this file is in 8-bit ASCII (to accommodate the foreign characters), and not all printers can print it.

Since the German and Swedish languages make extensive use of accented Roman letters, the MS-DOS National Language Support (NLS) functions are needed. The first version of MS-DOS that supports the NLS functions is 3.30. The QSL Writer cannot be run under pre-3.30 versions of MS-DOS.

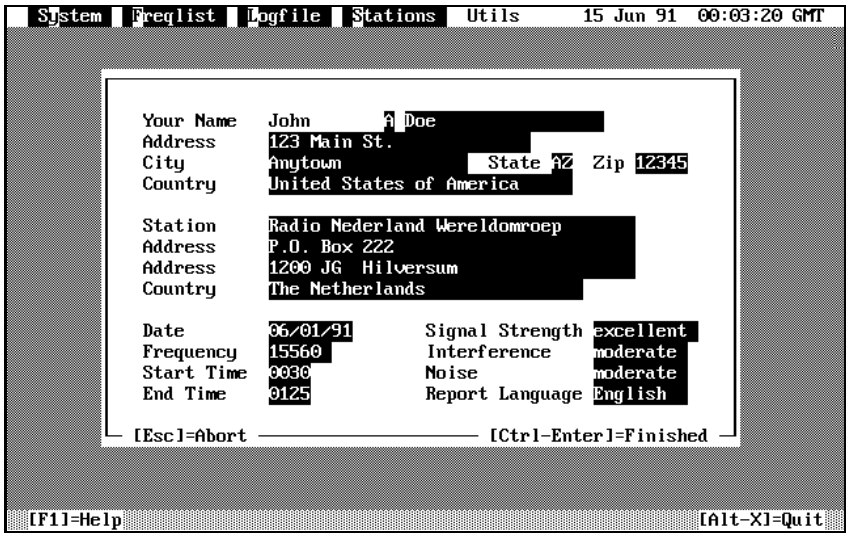

Figure 4 First screen of the QSL Writer.

Rekey Since the number of records in a table can grow to well beyond thousands of records, the table must have a faster method to locate records than to traverse the entire table from start to end. This is done with a series of keys, or indexes.

Sometimes the keys are a little off from the table. This can happen if the disk drive becomes full or a key is accidentally deleted. If so, the program will detect the error and terminate with a nasty error message. Most often rekeying the tables will eliminate the errors.

As with any program, it is a prudent idea to back up the tables often.

Switch Time This function will switch the time zone of the clock from Coordinated Universal Time to local time and vice versa.

The time zone information is read from the MS-DOS environment variable TZ. See the appropriate section of the user's guide for more information.

On-line Help

All of the information contained in the user's guide is also available within the Short Wave Log program. To access the on-line help, press the **F1** key at any time.