# SHORT WAVE LOG
# VERSION 1.20

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**ROBERT L. SILLETT**

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## Acknowledgements

Short Wave Log started out as a series of dBASE/Paradox tables and C code. As the program grew, so did the bugs. Thanks to the great team of beta-testers who not only found the bugs, but also gave great suggestions.

This product uses the SPAWNO routines by Ralf Brown to minimize memory use while shelling to DOS and running other programs.

Most of the modules for the QSL Writer have been contributed by users of Shortwave Log. Every module is used with the author's permission.

| | |
|---|---|
| Finnish | © 1991 Veli-Matti Anttila |
| French | © 1992 Felice G. Marchesi and Marc Sauton. |
| Hungarian | © 1992 László Breznovits. |
| Italian | © 1992 Felice G. Marchesi. |
| Portuguese | © 1993 Julio Cesar Tombasco de Oliveira |
| Spanish | © 1991 Joe Piskor |

Thanks also to László Breznovits who also proofread the Swedish module for the Reception Report Writer.

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## What's new in version 1.20

- Portuguese language module added to the Reception Report Writer
- Switch between VGA 25- and 50-line modes with [Ctrl-F1]
- [Alt-R] hotkey in the browse function will enter the Reception Report Write for that record
- Support for a printer set up string
- When an entry is added to the logfile, the program will now add that record to the frequency database if it does not already exist.
- Lots of bug-fixes and minor enhancements (see the `HISTORY` file for details).

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## Introduction

Many listeners of shortwave radio keep a record of the stations that they have heard. With the advent of personal computers, listeners can store their logs in a database. In addition to storing the log entries, Shortwave Log stores station frequencies and addresses, which are used to speed up the entry of logs and reception report requests. The Shortwave Log program also allows the listener to generate reception reports in English, Finnish, French, German, Hungarian, Italian, Portuguese, Spanish, and Swedish.

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## Hardware and Software Requirements

Shortwave Log is designed to run under MS-DOS 3.30 on an Intel 8086/8088 processor. Performance is acceptable on an 8086/8088, but the program runs much faster on an 80386 or better machine. It also runs in a Windows/WindowsNT/OS2 DOS box and on RISC machines that provide an 8086 emulator (such as Windows NT running on a MIPS R4000). At least 512 kB of free conventional memory is required. If present, approximately 470 kB of EMS or XMS memory is used. A hard disk and at least 2 MB of free disk space is required.

MS-DOS 3.30 or later is required. With MS-DOS 3.30 Microsoft added National Language Support (NLS). Shortwave Log uses the NLS functions to format the date, time, and sort order according the country statement in the `CONFIG.SYS` file. (See your DOS manual for more details.)

The minimum number of file handles needed to run Shortwave Log is 30. (Put a `FILES=30` line in the `CONFIG.SYS` file.)

Shortwave 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. Shortwave Log will also yield CPU cycles when running under DESQview, Windows, Windows NT, or OS/2. When running under one of these operating systems, Shortwave Log will use almost no CPU time when idle. (N.B. There is a bug in OS/2 2.1 GA which causes any DOS box to peg the Pulse CPU meter. IBM has released a bug fix.)

Shortwave Log will detect the DOS country code and set the date, time, and floating-point formats accordingly. The sort order of the databases is also determined by the country code. Three sort orders are supported: International, Norwegian/Danish (country codes 047 and 045), and Swedish/Finnish (country codes 046 and 358). The three sort orders differ in how they treat accented Roman characters. The International sort order does not differentiate between accented and unaccented characters. The Norwegian/Danish sort order puts accented characters immediately after unaccented. The Swedish/Finnish sort order puts accented characters at the end of the alphabet. If the sort order is ever changed, the databases will need to be re-keyed.

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## Installation and Upgrading

Shortwave Log is distributed in a ZIP archive. To ensure that the program is virus-free, download the archive from one of the systems listed in the next section. To extract the files from the archive, create a subdirectory (e.g. `C:\SWLOG`) and UNZIP the files to that directory.

When running Shortwave Log for the first time, the program creates the SWL database which stores the logbook entries. After the SWL database is created, all the databases are 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 databases, the program is ready to run.

When upgrading to a new version of Shortwave Log, move the old version and its associated files into a temporary directory. Extract the new version into the `\SWLOG` directory. Finally copy the `*.DB`, `*.PX`, `*.X??`, and `*.Y??` files from the temporary directory to the `\SWLOG` directory. This will copy over the starter databases with your own databases.

When upgrading from any previous version to version 1.20, all tables will need to be re-keyed. This should happen automatically.

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## Registration and Support

Shortwave Log was previously distributed as shareware, but version 1.20 is free. Shortwave Log is not and never has been in the public domain. Shortwave Log may be freely distributed so long as the archive is kept in tact and no charges (other than for media) are applied.

Look for latest versions of the Shortwave Log on these systems:

| | |
|---|---|
| nic.funet.fi | /pub/dx/software/msdos/log |
| oak.oakland.edu | /pub/msdos/hamradio |
| wuarchive.wustl.edu | /mirrors/msdos/hamradio |
| | |
| Binklink | (412) 766-0732 |
| CompuServe HamNet Forum | |
| Red Onion Express | (914) 342-4585 |

Support is available only via electronic mail. Address all inquiries to this address:

| | |
|---|---|
| CompuServe: | INTERNET:swlog@edc3.gsph.pitt.edu |
| Internet: | swlog@edc3.gsph.pitt.edu |

The registration form `REGISTER.TXT` can also be mailed to the above address. All registered users will be notified of new releases.

## Environment Variable

Shortwave Log displays a clock in the upper right-hand corner of the screen. The clock can be set to either local time or GMT/UTC. If GMT/UTC is the preference, then Shortwave Log must know the time difference between local time and GMT/UTC.

The DOS environment variable TZ, where `TZ=zzz[+/-]d[d]lll`, contains the time difference. `zzz` is a three letter abbreviation for the standard time zone. The `[+/-]d[d]` field contains one or more digits telling the number of hours the local time zone is west of GMT/UTC. For zones east of GMT/UTC, prefix the number with a minus sign (e.g. -1 for Continental Europe). The `lll` field is used if daylight savings time is currently being used; it too is a three letter field.

| *Time Zone:* | *Set TZ to:* |
|---|---|
| Eastern Standard | EST5 |
| Eastern Daylight | EST5EDT |
| Central Standard | CST6 |
| Central Daylight | CST6CDT |
| Mountain Standard | MST7 |
| Mountain Daylight | MST7MDT |
| Pacific Standard | PST8 |
| Pacific Daylight | PST8PDT |

## Configuration File

This function replaces the `SWLOG.CFG` file found in earlier releases. The listener's name and address, along with program preferences are set here.

The program listed in the ASCII Editor field must be either a COM or EXE file. BAT files do not work. The full path of the program also must be listed (e.g. `C:\DOS\EDIT` works whereas EDIT does not).

Most of the reports generated by Shortwave Log look best when printed with a small typeface in landscape mode. Since different printers require different codes to choose the font and page

orientation, Shortwave Log allows the listener to enter printer-specific setup codes in this field. An Escape is entered as <Esc>.

A clock is displayed in the upper-righthand corner of the screen. The clock can be set to display either the local time or GMT/UTC in the *Use GMT/UTC or local time* field.

Frequencies can be displayed in either MHz or kHz.

There are two ways to search for a record (also called a key match): strict and flexible. Strict mode requires an exact match. If a record is entered as "Radio Nederland Wereldomroep" then a search for "Radio Nederland" will fail. Flexible mode will return the closest possible record. If "Radio Nederland" is searched for "Radio Nederland Wereldomroep" or "Radio Netherlands" may be returned. This is set in the *Search Mode* field.

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## Main Menu

Once the program is started, an 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.

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

System: Re-display the welcome screen; Show a list of ASCII characters; Shell to DOS; Display information about the system; Quit the program.

Freqlist: Append, browse, edit, delete, and print the records in the FREQLIST database.

Logfile: Append, browse, edit, delete, and print the records in the LOGFILE database.

Stations: Append, browse, display, edit, delete, and print the records in the STATION database.

Utils: Export the databases to Comma Separated Value (CSV) files; Import data from CSV or dBASE III/III+ files; Generate a reception report; Rekey the databases. CSV files are also known as comma-delimited ASCII.

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## System Menu

General information about the program and computer is accessed through the system menu. There are five 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.

ASCII Chart: This function displays an ASCII chart. It may be called at any time via the [Alt-A] key combination. This is useful for entering non-English character on a US/UK keyboard (e.g. Südwestfunk).

OS Shell: This function temporarily exits the program and presents the normal DOS prompt. While in DOS, any DOS command may be issued; however, if any of the database databases are changed or deleted, irreparable damage may be inflicted to the databases.

This function is not available when running under DESQview or OS/2 as each can spawn DOS processes. This function is available under Windows NT because the program thinks it is running under MS-DOS 5.0.

System Info.: This function shows various details about the system such as the type of CPU and co-processor, the amount of free 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 by rebooting or turning off the computer since this may destroy all or part of the databases. The program may be quit at any time by using the [Alt-X] key combination.

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## Freqlist Menu

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

| | | |
|---|---|---|
| Khz | N | (number) |
| Station | A35 | (text 35 characters) |
| Location | A35 | (text 35 characters) |
| Kw | N | (number) |

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

Shortwave Log is shipped with a small sample FREQLIST database. This data is out of date, but is only meant as a starting point. When a record is entered into the LOGFILE database, its frequency, station name, transmitter location, and transmitter power are automatically entered into the FREQLIST database as well. After entering several dozen records, the FREQLIST database will reflect the listener's tastes.

There are five choices to the freqlist menu:

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

Browse: This function allows the viewing and editing of many records on the screen at one time. This function is contained in the separate program `BROWSE.EXE`. The Shortwave Log program is swapped to EMS, XMS, or disk when this function is called. The swapping method may not be compatible with every expanded and extended memory manager.

Edit/Delete: This function edits and deletes existing records in the database. The program maintains keys, or indices, to the database. Prior to entering the edit form, the listener is prompted to choose the desired key and enter the search data. The corresponding record is then found in the database. (Records may also be edited with the Browse function.)

Print: This function prints the database to a file chosen by the listener. The output is sorted according to one of the database'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 data entry form; however, the Edit/Delete form has additional keys defined to allow the listener to move from record to record. While in either function, the Escape key aborts the function. The key bindings 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 database. |
| [F10] | Go to the last record in the database. |
| [PgUp] | Go to the previous record. |
| [PgDn] | Go to the next record. |

The browse function has the following key bindings:

| | |
|---|---|
| [F1] | Help screen |
| [UpArr] | Previous record |
| [DnArr] | Next record |
| [LtArr] | Next field to the left |
| [RtArr] | Next field to the right |
| [PgUp] | Previous page of records |
| [PgDn] | Next page of records |
| [Ctrl-PgUp] | Top of database |
| [Ctrl-PgDn] | Bottom of database |
| [Home] | First field |
| [End] | Last field |
| [Ctrl-End] | Go to a specific record |
| [Delete] | Delete current record |
| [BSpace] | Edit current field |
| [Enter] | Accept edit |
| [Esc] | Abort edit or exit function |

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## Logfile Menu

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

| | | |
|---|---|---|
| Date | D | (date) |
| Gmt | A4 | (text 4 characters) |
| Khz | N | (number) |
| Mode | A4 | (text 4 characters) |
| Sinpo | A5 | (text 5 characters) |
| Station | A35 | (text 35 characters) |
| Location | A35 | (text 35 characters) |
| Kw | N | (number) |
| Language | A2 | (text 2 characters) |
| Detail1 | A50 | (text 50 characters) |
| Detail2 | A50 | (text 50 characters) |
| Detail3 | A50 | (text 50 characters) |

The LOGFILE database stores the listener's logs. When entering a record, the listener 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 database. If there are no corresponding matches in the FREQLIST database, then there is no pop-up window. If the suggestions are incorrect, the listener need only press the Escape key to disregard them.

There are the same options to the LOGFILE menu as the FREQLIST menu with two additions:

Print Key: This function prints only those records matching a given key (e.g. only the records from the BBC). The listener is prompted for the filename.

Print Since: This function prints all the records after a specified date and time.

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## Stations Menu

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

| | | |
|---|---|---|
| Name | A35 | (text 35 characters) |
| Address1 | A35 | (text 35 characters) |
| Address2 | A35 | (text 35 characters) |
| Country | A35 | (text 35 characters) |

There are the same options to the STATIONS menu as the FREQLIST menu with one addition:

Display: This function presents the listener with a pop-up window of all the station names. The listener can choose a station (or abort the function via the Escape key) and see the address of the station.

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## Utils Menu

Contained in the utils menu are functions that do not fit in the other menus. There are four choices to the utils menu:

Export: This function exports the data from the FREQLIST, STATION, and SWL databases into ASCII files formatted to the CSV (Comma Separated Values) specification. A CSV file is a comma-delimited ASCII file with double quotation marks surrounding text fields. 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 databases (i.e. the data in a FREQLIST.DBF file is imported into the FREQLIST database). Both the CSV and DBF files must be in a specific format. The required format for each database can be found in the on-line help.

Report Writer: This function writes a reception report (or QSL request) in a variety of languages. Currently Shortwave Log writes reports in English, French, Finnish, German, Hungarian, Italian, Portuguese, Spanish, and Swedish.

When this function is selected, the listener is presented with two forms. In the first form, the listener 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 listener selects the desired language for the report. A list of stations from the STATION database 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 listener enters details about the program that he has heard. If a language other than English is chosen, a pop-up window of program details is presented. The chosen program detail is translated into the appropriate language.

The text for the QSL request is stored in files with the extension of QSL (e.g. ENGLISH.QSL). These files can be edited to the listener's taste with any ASCII editor that supports 8-bit ASCII.

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 non-English characters), and not all printers can print it.

After the QSL request is written to disk, the listener is asked to edit the report. The name of the editor is defined in the System/Configure function.

Rekey: Since there can be thousands, even millions, of records in a database, there must be a faster method to locate records other than to traverse the entire database from start to end. This is done with a series of keys, or indices.

Sometimes the keys become corrupt. 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 an error message. Most often rekeying the databases will eliminate the error.

The databases may have to be rekeyed if the DOS country code is changed. Currently three different sorting orders are used: International, Norwegian/Danish, and Swedish/Finnish. The sort order is determined by the DOS country code. If the databases and their indexes do not use the same sort order, the program will abort with an obscure error.

## Backing Up Databases

As with any program, it is a prudent idea to back up the databases often. All the data for Shortwave Log is stored in the `FREQLIST.DB`, `STATION.DB`, and `SWL.DB` files.

## On-line Help

All of the information contained in the this guide is also available within the Shortwave Log program. To access the on-line help, press the [F1] key at any time.