

The T1 logging function

T1 firmware Rev 20.03 (dated 11/1/06) can maintain a series of log files on its compact flash card. These logs are automatically produced; no software commands need to be issued to start or otherwise control them.

You can upgrade to this revision by downloading <http://www.ockam.com/T1-2003-061101.zip> from the web and copying CPU.RTB to your flash card.

Control

Logging will only occur if the compact flash card has a capacity greater than 20 MB and the free space exceeds 2 MB.

Logging is enabled by T1 DIP switch #3. If this switch is on (and the resource constraints are met), than logging automatically takes place.

Operation

On startup the T1 begins logging all displayed data to file "LOGx.TXT" (where x is 0 thru 7). In order to protect against issues with powering off, data is buffered in RAM and written to the file on the minute. If there are any LOGx.TXT files on the CF card, the logger determines the date of the newest one, and opens the next log in sequence. For example, if the CF contained:

10-6-06	10:56a	56,789	LOG0.TXT
10-6-06	11:57a	17,111	LOG3.TXT
10-5-06	14:55a	27,777	LOG2.TXT

Then the logger would open LOG4.TXT as the next file.

After 1 hour elapses, LOGx.TXT is closed and LOGx+1.TXT (n is modulo 8, so LOG8.txt becomes LOG0.txt) is started. This process continues, until after 8 hours, LOGx is reopened and overwritten.

Several new diagnostic codes provide advice on log operation.

- !150 Failed to create log file.** Insufficient system resources available to create and open the log file.
- !151 Log file shut down.** Free space on the compact flash fell below 2MB. Logging has been terminated.
- 152 Logging disabled.** Logging requires a compact flash size greater than 20 MB.
- 153 Logging write error.** There was an error writing the current data block.
- 154 Logging updated.** The log was successfully updated.
- 155 Next logging file opened.** The previous file was closed and the next in sequence has been opened.

What is logged

The log files are plain text. Everything which goes out on the display channel is logged, including commands. This means that disabled tags do not get logged, and if NMEA data is enabled (!S2) then that is too.

How to De-Log

The application DumpLog.exe understands this type of file, and can be used to produce Excel spreadsheets from the log files. Download <http://www.ockam.com/dumplog.zip> and read the included ReadMe.txt.