

Data Log Files

Cumulus creates two sets of log files, these are kept in a folder called **data** within the folder where you installed *Cumulus*.

The first is a single file called **dayfile.txt** ; an entry is made to this file every day at midnight or 0900 (1000 in summer) depending on the chosen setting on the [Station Configuration](#) screen, summarising the day's data. The file is in comma-separated format, and each entry contains the following fields, in this order:

- Date in the form dd/mm/yy (the slash may be replaced by a dash in some cases)
- Highest wind gust
- Bearing of highest wind gust
- Time of highest wind gust
- Minimum temperature
- Time of minimum temperature
- Maximum temperature
- Time of maximum temperature
- Minimum sea level pressure
- Time of minimum pressure
- Maximum sea level pressure
- Time of maximum pressure
- Maximum rainfall rate
- Time of maximum rainfall rate
- Total rainfall for the day
- Average temperature for the day
- Total wind run
- Highest average wind speed
- Time of highest average wind speed
- Lowest humidity
- Time of lowest humidity
- Highest humidity
- Time of highest humidity
- Total evapotranspiration
- Total hours of sunshine
- High heat index
- Time of high heat index
- High apparent temperature
- Time of high apparent temperature
- Low apparent temperature
- Time of low apparent temperature
- High hourly rain
- Time of high hourly rain
- Low wind chill
- Time of low wind chill
- High dew point
- Time of high dew point
- Low dew point
- Time of low dew point

The second is a set of files with names in the form **<Month><Year>log.txt** (for example, the file for December 2003 is called **Dec03log.txt** (on English systems)); an entry is made to the current month's file every ten minutes (or as configured), recording the current sensor values. The file is in comma-separated format, and each entry contains the following fields, in this order:

- Date in the form dd/mm/yy (the slash may be replaced by a dash in some cases)
- Current time
- Current temperature
- Current humidity
- Current dewpoint
- Current wind speed
- Recent (10-minute) high gust
- Average wind bearing
- Current rainfall rate
- Total rainfall today so far
- Current sea level pressure
- Total rainfall counter as held by the station
- Inside temperature
- Inside humidity
- Current gust (i.e. 'Latest')
- Wind chill
- Heat Index

- UV Index
- Solar Radiation
- Evapotranspiration
- Annual Evapotranspiration
- Apparent temperature
- Current theoretical max solar radiation
- Hours of sunshine so far today

Times in these files are in the form hh:mm using the 24 hour clock and local time (system time). All data is logged in the units which have been selected by the user on the station configuratuion screen. Note that 'comma-separated' does not necessarily mean that a comma is used to separate the values! If your PC uses a semicolon for the list separator, that will be used in these files.

If the 'realtime' option is selected, *Cumulus* creates a file called **realtime.txt** at the specified interval, and uploads it to your web site. The format of this file is as follows:

Example: 18/10/08 16:03:45 8.4 84 5.8 24.2 33.0 261 0.0 1.0 999.7 W 6 mph C mb mm 146.6 +0.1
85.2 588.4 11.6 20.3 57 3.6 -0.7 10.9 12:00 7.8 14:41 37.4 14:38 44.0 14:28 999.8 16:01 998.4 12:06
1.8.2 448 36.0 10.3 10.5 13 0.2 14 260 2.3 13 1 0 NNW 2040 ft 12.3 11.1 420.1 1

Field	Example	Description
1	18/10/08	date (always dd/mm/yy)
2	16:03:45	time(always hh:mm:ss)
3	8.4	outside temperature
4	84	relative humidity
5	5.8	dewpoint
6	24.2	wind speed (average)
7	33.0	latest wind speed reading
8	261	wind bearing (degrees)
9	0.0	current rain rate
10	1.0	rain today
11	999.7	barometer
12	W	wind direction
13	6	wind speed (beaufort)
14	mph	wind units
15	C	temperature units
16	mb	pressure units
17	mm	rain units
18	146.6	wind run (today)
19	+0.1	pressure trend value
20	85.2	monthly rainfall
21	588.4	yearly rainfall
22	11.6	yesterday's rainfall
23	20.3	inside temperature
24	57	inside humidity
25	3.6	wind chill
26	-0.7	temperature trend value
27	10.9	today's high temp
28	12:00	time of today's high temp (hh:mm)
29	7.8	today's low temp
30	14:41	time of today's low temp (hh:mm)
31	37.4	today's high wind speed (average)
32	14:38	time of today's high wind speed (average) (hh:mm)
33	44.0	today's high wind gust
34	14:28	time of today's high wind gust (hh:mm)
35	999.8	today's high pressure
36	16:01	time of today's high pressure (hh:mm)
37	998.4	today's low pressure
38	12:06	time of today's low pressure (hh:mm)
39	1.8.2	Cumulus version
40	448	Cumulus build number

41	36.0	10-minute high gust
42	10.3	heat index
43	10.5	humidex
44	13	UV Index
45	0.2	Evapotranspiration today
46	14	Solar Radiation W/m2
47	260	10-minute average wind bearing (degrees)
48	2.3	rainfall last hour
49	13	current forecast number (see samplestrings.ini). Negative means 'exceptional'
50	1	Is daylight? 1 if currently within daylight hours, 0 if not
51	0	Sensor contact lost (1 = yes) (Fine Offset only)
52	NNW	wind direction (average)
53	2040	Cloudbase
54	ft	Cloudbase units
55	12.3	Apparent Temperature
56	11.1	Sunshine hours so far today
57	420.1	Current theoretical max solar radiation
58	1	Is it sunny? 1 if the sun is shining, otherwise 0

Cumulus also keeps a log of changes to the alltime records, called **alltimelog.txt**, which can be found in the data folder. An entry is added to this file every time an all-time record changes, with details of the old and new records. This log can then be used to 'backtrack' if spurious data causes an all-time record to be broken incorrectly. It is also a useful log of when records were actually broken.

The format of entries in this log is as follows:

```
date time value "item name" old date old time old value
```

The dates are in ISO format (yyyy-mm-dd) and the times are in hh:mm 24-hour format (the separator is always a colon, irrespective of system settings), and the values are always to three decimal places. You should round the values appropriately when using them. The quotes are present with the item names. An example:

```
2010-02-24 05:19 -7.600 "Lowest temperature" 2009-02-09 04:50 -6.500
```