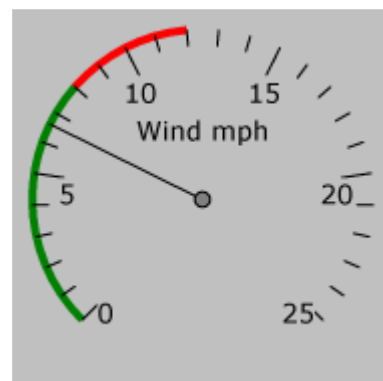


Cumulus Main Window

The main window in *Cumulus* displays all the current weather data, updated as it is received from the weather station. The heading on this page is configurable by selecting [Display](#) from the Configuration menu.

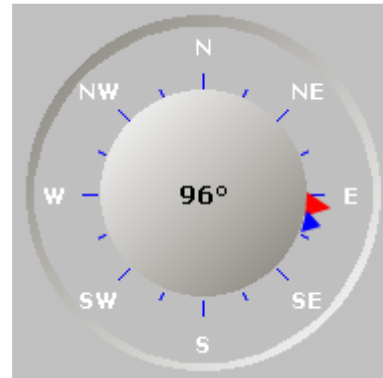
The wind speed indicator shows three values:

- The needle shows the current snapshot of the wind speed, as read from the weather station. What this figure represents exactly, depends on the type of weather station - in general it is the latest "short-term" speed and corresponds to the 'Latest' figure on the *Cumulus* display.
- The green arc shows the current average wind speed. It corresponds to the 'Average' figure on the *Cumulus* display.
- The red arc shows the recent highest gust (in the last ten minutes). It corresponds to the 'Gust' figure on the *Cumulus* display.

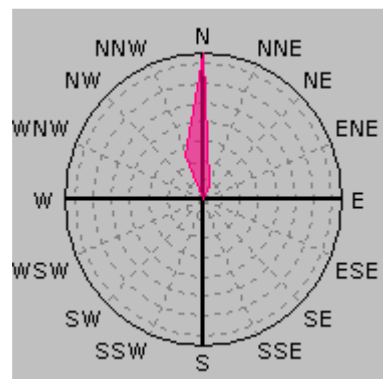


See below for further information about wind speeds.

The wind direction indicator shows the current snapshot of the wind direction, as read from the weather station, with a red pointer (also indicated by the bearing in the centre of the gauge); it also shows the average wind direction over the last ten minutes, with a blue pointer.



The third indicator gives a visual summary of the relative wind strength and direction over last few hours; the lines drawn in each direction take into account the strength of the wind as well as the length of time it has been coming from that direction.



The **'New Record' light** will flash when any of the all time records has been broken. Clicking on the light will open the [All Time Records](#) display.

The **'Error' light** will flash when an error has occurred, usually when updating your web site. Clicking on the light will open a window showing the most recent errors. Usually this is nothing to worry about, you can expect to get an upload error from time to time.

For Davis users, the status of the transmitter batteries is given at the bottom left of the main window.

At the bottom right hand corner is a 'Current Conditions' text box, which is invisible until turned on with the option in the [display settings](#). A description of the current conditions can be entered here, and the web tag `<#currcond>` will be replaced by this text if used in a web page processed by *Cumulus*. If a file called 'currentconditions.txt' exists in the same directory as the *Cumulus* executable, the contents of this file will be used for the web tag instead. The file will be deleted if the text in the current conditions box is modified.

The status bar, at the very bottom of the main window, displays various messages indicating when internet uploads are taking place, and at the right hand end of the status bar is displayed the number of entries downloaded from the logger the last time *Cumulus* was started, and the last time data was read from the station.

A note about wind speeds: No two types of weather station provide exactly the same type of wind speed information. Weather stations typically supply two wind speed values; a short-term value (sometimes called 'gust' by the station) and a longer-term or average value (sometimes called 'average' by the station, or sometimes simply 'speed'). Some weather stations only supply a single wind speed value. *Cumulus* tries to fit all of the various values into three displayed items:

- Latest: This is the latest reading of the 'short-term' speed.
- Gust: This is the highest value in the last 10 minutes of the 'short-term' values.
- Average: This is the longer-term or average value. Sometimes this is taken directly from the station, and sometime it is a 10-minute average calculated by *Cumulus*, depending on whether you have told Cumulus to do so in the [station settings](#).

Cumulus Menus

Menu Item	Function
File	
Web Update	Causes an immediate update of the web site pages.
Print	Sends an image of the main window to the default printer.
Exit	Causes <i>Cumulus</i> to close.
Edit	
All time records	Opens the " All Time Records Setup " screen which allows the all time records to be edited
Alarms	Displays the " Alarms " screen which allows you to set alarms for when various conditions occur.
Copy to clipboard	Copies the current data to the clipboard
View	
Highs and Lows	All time - Displays the " All Time Records "Window. Today - Displays today's highs and lows Yesterday - Displays yesterday's highs and lows This month - Displays this month's highs and lows This year - Displays this year's highs and lows

This month	Displays the " This Month " summary window.
This year	Displays the " This Year " summary window.
This period	Displays the " This Period " summary window.
Graphs	Displays the " Graphs " Window.
Weather Diary	Displays the " Weather Diary " Window.
Snow Index	Displays the "Eden Winter Snow Index". See here for an explanation.
Select-A-Graph	Displays the " Select-A-Graph " Window, which allows you to display historical data as a graph.

Configuration

Station	Opens the Station Settings window which allows details of the weather station and its location to be set.
Internet	Opens the Internet Settings window which allows details of the web site on which data from <i>Cumulus</i> is to be published to be set.
Display	Opens the Display Settings window which allows the appearance of <i>Cumulus</i> to be configured.
Debug Log	Select this to turn on debug logging. Entries are made to the log for debugging purposes. A file is created in the <i>Cumulus</i> program folder called "debug.log". Entries are flushed to this file every five minutes, or when the program closes. Note that this setting is not related to the logging of weather data. Please do not turn this on unless requested, and do not leave it turned on once the required diagnostics have been obtained.
FTP Logging	Select this to turn on ftp logging. Two files are created in the <i>Cumulus</i> program folder called "ftplog.txt" and "realtimeftplog.txt".

Help

Help topics	Displays the <i>Cumulus</i> help file.
About	Displays information about <i>Cumulus</i> .

The "All Time Records" Window

This window can be displayed by either clicking on the Alarm light on the [main window](#), or by selecting **All time records** from the **View menu**. The current records are shown; if any records have been broken since the last time the window was opened, the light next to that entry will be flashing. Clicking on the light will turn it off, and closing the window will turn off all the lights.

The "This Month" Window

This window can be displayed by selecting **This Month** from the **View menu**. Various statistics for the current month so far are displayed.

Months other than the current month can be selected using the **Month** and **Year** selectors and then clicking **Update display**.

The currently displayed data can be copied to the clipboard (so it can be posted into a Usenet article, for example) by clicking on **Copy to clipboard**.

Note that the data that is displayed for the current month does not include data for the current day.

The "Graphs" Window

This window can be displayed by selecting **Graphs** from the **View menu**.

The data in the large graph is sampled every minute (apart from the Min/Max Temp and Daily Rainfall graphs, which are daily values), while the data in the smaller graphs is sampled every ten minutes.

Right clicking on one of the larger graphs brings up a pop-up menu allowing you to change the colour used for plotting that graph.

Clicking on one of the smaller graphs causes its larger version to appear in the large graph area. You can 'zoom' an area of the large graph by dragging with the mouse; to 'unzoom', drag from lower right to top left. Note that if you are uploading graph images to a web site, they will appear exactly as they are in Cumulus - i.e. if you have 'zoomed' them, that is how they will appear.

The "Weather Diary" Window

This window can be displayed by selecting **Weather Diary** from the **View menu**.

The Weather Diary facility allows the user to enter some short notes (up to 1024 characters) for each day, and to record whether snow was falling and/or lying on that day, along with the depth of snow.

To make an entry:

Select the date on the calendar by clicking on it, then enter the required details. Click on update to save the entry.

Clicking on **Close** closes the window and saves the entry to the log file.

To update an existing entry:

Select the date on the calendar by clicking on it, then amend the required details. Click on update to save the entry.

Clicking on **Close** closes the window and saves the entry to the log file.

The "Select-A-Graph" Screen

This screen can be displayed by selecting **Select-A-Graph** from the **View** menu. The screen allows you to display historical data from the log files as a graph. Choose the items to be displayed by ticking the appropriate boxes, set the start and end dates and times, and click the 'update' button to display the chosen graph. Note that some combinations of parameters may not produce nice results, as they all have to use the same Y-Axis scale.

You can change the colour of the graph lines using the colour buttons, and change between a 2D and 3D display with the 'Display 3D' checkbox.

The graph can be printed or saved as a PNG file from the corresponding items in the 'File' menu.

You can click the 'Clear' button when you have finished with Select-A-Graph to clear the graphs and release the memory used (which can be considerable for large timespans).

The Records (Highs and Lows) Editors

These can be accessed by selecting **All time records**, **This month's records**, or **This year's records** from the **Edit menu**.

The current records are shown; the values, dates and times can be changed by typing in the appropriate box. Clicking on 'Fetch log data' will cause a scan of all of your monthly log files to retrieve the highs and lows; these will then be displayed in the grid. Similarly, clicking on 'Fetch dayfile data' will cause a scan of the dayfile.txt file to retrieve the highs and lows from that file. You can copy either of the retrieved values (with their date and time) to the 'current' value in the grid by clicking the appropriate 'copy' button. Clicking the 'reset' button will cause the existing record to appear again.

Note that when fetching the highs and lows from the log files, this is very much a case of 'garbage in, garbage out'. If you have any errors in your log files (caused by bad data, bugs in *Cumulus* now or at some time in the past, etc) these will appear in the grid, and you may find that you want to edit them from the log files before trying again. For some items, Cumulus may not be able to retrieve a value; this will usually be because it is not possible to determine that particular item from the log files (e.g. monthly rain totals cannot redaily be determined from the monthly log files, only from dayfile.txt).

Important: Even if your data is 100% perfect, **do not expect to see all of the retrieved values agreeing exactly**. This is due to fact that the log files are 'snapshots' of the data, so may not actually have caught a particular high or low. The facility is simply there so that you can retrieve a good value to replace an existing record which may have been corrupted in some way. Also, because the list of data items (and highs and lows) logged by Cumulus has changed over the years, a particular record may not currently go back all the way to the beginning of your data, so you can use the scan of the log files to find a better value. For Apparent Temperature and Heat Index, which *Cumulus* has only relatively recently started recording, it will retrospectively calculate these values from the Temperature, Humidity, and Wind Speed values, for those older entries which don't contain the items themselves.

When you are happy with all of the settings, click the OK button to save them. Alternatively, click the Cancel button to discard any changes.

The "Alarms" Screen

This screen can be displayed by selecting **Alarms** from the **Edit menu**. You can set an alarm for various conditions, e.g. the temperature falling below a particular value. Type the required value into the appropriate box, and tick the 'Alarm if...' box to set the alarm. You can also have a sound played when the alarm occurs by ticking the 'Play sound' box. A default sound is played, but clicking the 'Choose sound' button allows you to select a '.wav' file to be played for each alarm.

When an alarm condition occurs, the label for the item causing the alarm goes red. If you click on the label, it goes black again and the alarm is reset. Note that it may occur again immediately. If you do not click on the label and the alarm condition ceases to exist (e.g. the temperature rises above the pre-set value) the label goes blue to show that an alarm condition has existed at some time. Again, clicking on the label turns it black and the alarm is reset.