

# XMETEOGRAM

Ananthakrishna Sarma  
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**xmeteogram** is a X-Windows based viewer for surface data files. The output is a meteogram displayed on an X-terminal. At startup a row of buttons are presented at the bottom of the screen.



The buttons and their functions are explained below:

- Data** This button allows the user to select a data file for display. It pops up a file browser to enable file selection. The browser will display all files with extension `.sfC` that are in the current working directory. The format of a data file is given later in this document.
- Script** Enables the user to select a script file via a file browser. The browser will display files with extension `.scr`. The format of the script files is given later in this document.
- Redraw** Redraws the display. This is useful especially after exposing the window as xmeteogram currently does not do automatic refresh of its window on “expose”.
- Page 2** Displays page 2 of the meteogram that shows the wind speed and direction as strip-charts. When page 2 is displayed this button will be

labeled as "Page 1" which can then be used to return to the temperature, dew-point and pressure display.

- <- Pans the view to the left. This has the effect of shifting the trace to the right.
- > Pans the view to the right. This has the effect of shifting the trace to the left.
- <--> Expands the view; in other words zooms out.
- ><- Shrinks the view; in other words zooms in.
- Clear** Clears the display.
- Stats** Writes statistics information to the display.
- PS File** Write a PostScript file for printing.
- GIF File** Write a GIF file of the image.
- Quit** Quits the program.

The following figures show samples of Pages 1 and 2.

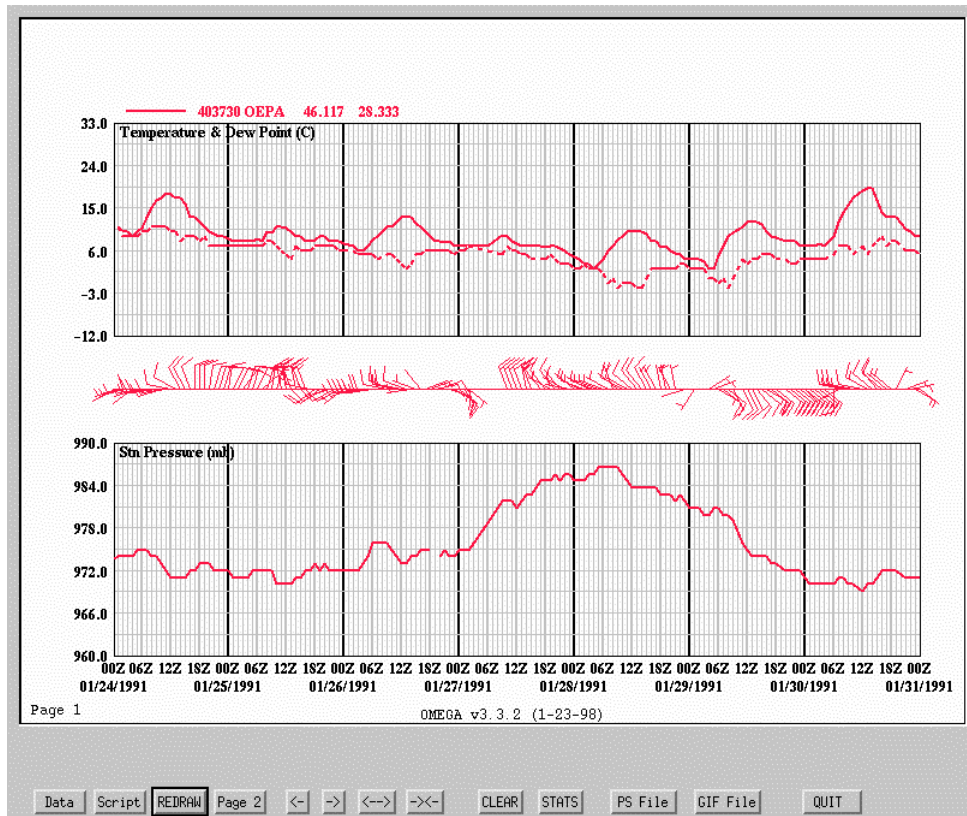


Figure 2: Page 1 of the display showing temperature and dew-point in the upper panel, pressure in the lower panel and wind-barbs on the center line.

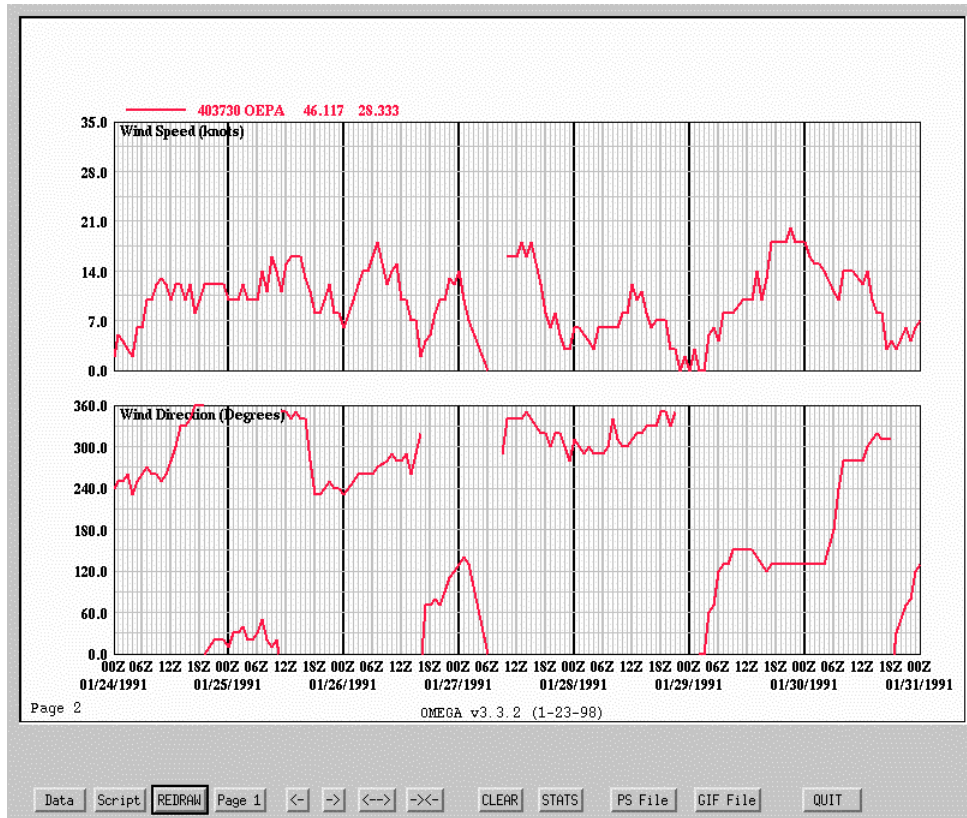


Figure 3: Page 2 of the display showing Wind Speed and Wind Direction.

## Script files

**xmeteogram** also allows you to read in a script file. The script file should contain a series of script commands. The script commands start with a ‘\’ character. The following script commands are currently recognized.

Command	format	Description
\begin_time	\begin_time yyyy mm dd hh	Specifies the time to begin the display. This corresponds to the leftmost entry on the graph. “yyyy” is the four-digit year, “mm” the month, “dd” the day and “hh” the UTC hour.
\clear	\clear	Clears the display. It also resets the color scheme.
\comment	\comment	Reads and displays a single-line comment. The comment is read from the line that follows \comment.
\compress	\compress	Puts an additional 12 hours of information on the display.
\datafile	\datafile <i>fname</i>	Reads a data file with name <i>fname</i> .
\end	\end	Ends reading the script file.
\exit	\exit	Exits xmeteogram. This is synonymous with the \quit comand.

<code>\num_hours</code>	<code>\num_hours n</code>	Restricts the display to <i>n</i> hours.
<code>\page1</code>	<code>\page1</code>	When Page 2 is displayed, this switches back to Page 1.
<code>\page2</code>	<code>\page2</code>	When Page 1 is displayed, this switches back to Page 2.
<code>\quit</code>	<code>\quit</code>	Exits xmeteogram. This is synonymous with the <code>\exit</code> command.
<code>\scroll_left</code>	<code>\scroll_left</code>	Scrolls the display to the left by 12 hours. In other words, reduces the <code>begin_time</code> by 12 hours.
<code>\scroll_right</code>	<code>\scroll_right</code>	Scrolls the display to the right by 12 hours. In other words, increases the <code>begin_time</code> by 12 hours.
<code>\stats</code>	<code>\stats</code>	Computes and displays the statistics using the first two datasets read in.
<code>\stretch</code>	<code>\stretch</code>	Shortens the display by 12 hours.
<code>\title</code>	<code>\title</code>	Reads and displays a title for the plot. The title is read from the line that follows <code>\title</code> .
<code>\write_gif</code>	<code>\write_gif fname</code>	Writes a GIF file of the page currently displayed.
<code>\write_ps</code>	<code>\write_ps fname</code>	Writes a Postscript file of the page currently displayed.