

Name

plot_timeser – scans and plots one-dimensional timeseries data from a CF-compliant NetCDF file.

Synopsis

plot_timeser [*option*]. . . --withN=*file*. . .

Description

Provides an easy way to plot time series from any CF-compliant data file containing a number of one-dimensional variables that change over time. For each such variable in the file, a separate diagram is drawn. When given more than one file, plot_timeser assumes that they have the same variable structure and combines corresponding variable data from different files in the same plot.

This program is part of the *plotems 1.0.6* package.

Options

- attr=attribute_name** Allows the possibility to choose NetCDF variable attributes printed in parentheses located in the top right corner of a plot. This can be a list of attribute names separated by ‘,’ , or just ‘none’ to show no attributes. Attributes not included in the file (i.e. misspelt names) will be ignored. The default is ‘code’. This information is also written to the manifest file.
- format=output_format** Change output format of plots from its default, ‘pdf’, to ‘ps’ or to display interactively using ‘x11’.
- line_scale=value** Change the size of the plot lines (default = 1). *value* may contain fractions (e.g. 1.5).
- manifest=file** Create a text file containing a list of the plots created for easier selection of plots from the output after the script has completed. It lists the pages of the output file along with the first variable per page. No manifest file is written by default.
- mode=predefined_mode** Chose a predefined set of options:
 - monitoring** Make plots suitable for online web-monitoring. Text and line scales are increased, and only one plot per page is shown.
 - presentation** Make plots suitable for presenting to an audience. Text and line scales are well increased, only one plot per page is shown, and variable attributes are suppressed.
- nolegend** Suppress legend when plotting more than one file.
- output=file** To modify the name of the file created. There is no need to include the file extension. This will automatically be generated and can be changed using ‘--format’ – see above.
- rows=value** To change the number of plots shown per page (default = 4). For *value* = 1, the pages are written in landscape mode. This option accepts integer numbers only.
- split_pages** This enables the user to split the pages into separate files. Each file created will be named according to the first variable plotted on a page.

--text_scale=*value* Change the size of the fonts used in the plots (default = 1). *value* may contain fractions (e.g. 1.5).

--time_format=*ncl_time_format* Change formatting of time stamps on the x-axis (default = %Y-%N-%D~C~%H:%M:%S).

--time_ticks=*value* Control number of tick marks (time steps) on the x-axis (default = 33).

--units=*position* Modify the position of the units string. Units may be added to the title string in brackets (*position* = 'top'), to the y-axis label ('left'), or suppressed ('none'). Default is 'top'.

Input files

--with*N[a]=file[,key]* Plot *file* using the color specified by *N*:

1	Red	4	Blue	7	Orange	10	Violet	o	Black
2	Cyan	5	Green	8	Azure	11	Mint		
3	Yellow	6	Magenta	9	Lime	12	Rose		

Na uses a *lighter* variant of color *N* (not supported for o).

When plotting more than one file, *plot_timeser* creates a legend from the *file* values, trying to eliminate parts common to all file names. If given, *key* is used instead of *file*.

Prerequisites

- NCL (<http://ncl.ucar.edu/>)
- nclsh (<https://code.zmaw.de/projects/nclsh>)

Bugs

Please note that unsupported options will be silently ignored. Please make sure you have typed the command correctly, including in some cases correct letter casing and underscoring.

Author

Written by Karl-Hermann Wieners, original documentation by Michael Hemming

Copyright

Copyright © 2022 Max-Planck-Institut für Meteorologie, Hamburg, Germany

Copying and distribution of this program, with or without modification, are permitted in any medium without royalty provided the copyright notice and this notice are preserved. This program is offered as-is, without any warranty.