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CONMAP(met)

NAME

`conmap` - to produce maps from grid arrays

SYNOPSIS

```
Conmap [ -abBcCdGhllLnNopPqQrRsStvV -Aareafillcolor -Fincon-
mapfile -zsmooth ] [ filename [ teefile ]]
```

DESCRIPTION

`conmap` produces a metacode file (`gmeta`) which can be translated using `glw` or `ctrans` to produce a map. `Conmap` expects an unformatted input file as specified on the command line otherwise it will look for a file called `tape1`. This input file is usually the output from `mapprs`.

`Conmap` has two major functions: setting up the required map projection and setting suitable contour values. The easiest way to set the map projection is by using `-GN` or `S` for global, northern or southern hemisphere projections respectively. Otherwise `conmap` will ask a series of questions to define the projection. The input required in this case is typically accessed from an `inconmap` file using the `-F` option or the input arrow (`<`).

There are a number of methods for setting the contour values. No option will force `conmap` to choose the contour interval, `-q` uses the file `contours.dat`, `-c` gives the user the choice of contour interval while `-v` is used to set the actual contour values. See below for the details of each option.

OPTIONS

`-a` Causes the continents to be color filled in pale green, pale grey when printed using `glw_color`.

`-Aareafillcolor`

Used with `-a` specifies the color to fill the continents with. CURRENTLY NOT AVAILABLE BUT PROBRABLY COULD BE ADDED IF ENOUGH INTEREST

`-b` Allows stippling in contour bands (data from `tape1`). `Conmap` asks for the number of bands to be shaded and then, for each band, the lower bound, upper bound and the dot density. The dot density can take values from 1 (widest spacing) to 10 (solid fill). There is an optional key available with contour banding - reply 'y' to the appropriate question.

`-B` Allows colour or grey scale filling of contour bands. You will be prompted for which you want. Colours can either be set automatically or chosen. Again you are prompted for this. `conmap_cp` should be used for colour plots that are to be printed as the colour scheme

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included in this version of *conmap* has been designed for this purpose. A white background is also used.

- c Causes *conmap* to ask for the contour range and interval
- d This allows the user to specify the dot size and spacing for the significance stippling. The required sizes are input when requested by *conmap*. The default dot-size is 2000 and the default spacing is 0.01. NOTE that the dots will not look any larger when viewed using *ctrans/ictrans* but will come out larger or smaller on the printer.
- Finconmapfile*
Causes *conmap* to read projection etc. information from *inconmapfile*. This is an alternative to '*conmap infile <inconmapfile>*' and is useful when using the *-c* option on a non-standard projection.
- h Causes *conmap* to not produce any header or footer. Useful for publication quality output.
- l Allows contour label size and minimum distance between labels to be specified. Current values are given and then the user is requested to input new values.
- L Allows user to choose contour labels.
- m Masks continents or oceans in white. You will be prompted for which is required. No special values are required. Mask will be black with the *-B* option. N.B. To plot on laserprinter must use *ps.color* available using *glw_color*.
- n Causes *conmap* to not produce a bold zero contour.
- o Suppresses continental outline.
- p Allows lat, long points to be marked on the map with a * symbol. Asks for the number of points to be plotted followed by lat, long pairs.
- q Contour interval is taken from the file *contours.dat*. A copy of this file is required in the directory in which *conmap* is being run. *Conmap* uses the first four characters in the header to find the correct contour interval from the *contours.dat* file. A copy of these contour files can be found in *~met/src/bin/conmap.dir*. Now that NCAR is able to internally select sensible

contour intervals this method of setting the contour interval is rarely used.

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-Q Reads data from a formatted data file, and writes the data on the map. The format of this file is:

Header line

npts

lat(1) long(1) data(1)

lat(npts) long(npts) data(npts)

Can be used to plot points over a contour map. Place the inputfile second, with a distinct name (not 'tape2').

-s Sets the special value option on *conmap* so that special values are not contoured. The special values may be set in *maskmap* and have values of 99999.9.

-r Plots streamlines rather than contours. u and v component winds are required as input as for vector plots.

-R Contours from irregular data, inputfile is in the same format as -Q. It is quite rough. Remember to use -s. Can be used with -Q. Only 100 points can be used. The conmap file of the contour plot is written to tape3.

-t Causes *conmap* to take the second named file (defaulting to tape2) as a TEE file and using it produces stippled areas indicating the chosen confidence level.

-v Sets variable interval contouring. *Conmap* will ask for the number of contours required and the value of each one.

-zsmooth

Changes the amount of smoothing of contours. This may be required when filling is being done (-b, -B or -t) because smoothing can cause the contour lines to cross and hence incorrect areas may be filled. The default smoothing is 3.5 and higher numbers give less smoothing. Large numbers (greater than about 20) can give errors. In this case it may be necessary to change the contour level to solve the filling problem. No smoothing can be requested by choosing a smoothing value of 999.

-C This option causes *conmap* to produce vectors and con-

tours on the same map. It only works with the option -V (ie -CV). *Conmap* will expect two input files (defaulting to *tape1* and *tape2*) containing *u* and *v* fields (first file) and the file to be contoured (second file).

-GNS Sets the projection to be global cylindrical equidistant, northern or southern hemisphere polar

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stereographic respectively. Only one of these options is valid at one time.

-P This option causes *conmap* to print the actual data values on the map. No contours are plotted with this option. Only choose this option for limited area maps or the results will be illegible.

-V This option causes *conmap* to produce vectors instead of contours. *Conmap* will expect the input file (defaulting to *tape1*) to contain both *u* and *v* fields.

FILES

tape1
~met/bin/*conmap*
gmeta
*inconmap**

SEE ALSO

mapprs, *ftrans*, *ictrans*, *ctrans*

EXAMPLES

Meteorology graphics manual

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