

GMT-3 QUICK REFERENCE

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FILTERING OF 1-D AND 2-D DATA:

blockmean	L2 (x,y,z) data filter/decimator
blockmedian	L1 (x,y,z) data filter/decimator
filter1d	Filter 1-D data (time series)
grdfilter	Filter 2-D data in space domain

PLOTTING OF 1-D and 2-D DATA:

grdcontour	Contouring of 2-D gridded data
grdimage	Produce images from 2-D gridded data
grdvector	Plot vector fields from 2-D gridded data
grdview	3-D perspective imaging of 2-D gridded data
psbasemap	Create a basemap frame
psclip	Use polygon files as clipping paths
pscoast	Plot coastlines, filled continents, rivers, and political borders
pscontour	Direct contouring or imaging of xyz-data by triangulation
pshistogram	Plot a histogram
psmask	Create overlay to mask specified regions of a map
psrose	Plot sector or rose diagrams
psscale	Plot grayscale or colorscale
pstext	Plot textstrings
pswiggle	Draw anomalies along track
psxy	Plot symbols, polygons, and lines in 2-D
psxyz	Plot symbols, polygons, and lines in 3-D

GRIDDING OF (X,Y,Z) ASCII DATA:

nearestneighbor	Nearest-neighbor gridding scheme
surface	Continuous curvature gridding algorithm
triangulate	Perform optimal Delauney triangulation on xyz data

SAMPLING OF 1-D AND 2-D DATA:

grdsample	Resample a 2-D gridded data onto new grid
grdtrack	Sampling of 2-D data along 1-D track
sample1d	Resampling of 1-D data

PROJECTION AND MAP-TRANSFORMATION:

grdproject	Project gridded data onto new coordinate system
mapproject	Transformation of coordinate systems
project	Project data onto lines/great circles

INFORMATION:

gmtdefaults	List the current default settings
gmtset	Edit parameters in the .gmtdefaults file
grdinfo	Get information about grd files
minmax	Report extreme values in ASCII datafiles

CONVERT OR EXTRACT SUBSETS OF DATA:

grd2xyz	Convert 2-D gridded data to ASCII table
grdcut	Cut a sub-region from a grd file
grdpaste	Paste together grdfiles along common edge
grdreformat	Convert from one grdformat to another
splitxyz	Split xyz files into several segments
xyz2grd	Convert ASCII table to 2-D grd file

MISCELLANEOUS:

psmegaplot	Create poster-size plots from postscript files
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makecpt	Create GMT color palette tables
spectrum1d	Compute spectral estimates from time-series
triangulate	Perform optimal Delauney triangulation on xyz data

DETERMINE TRENDS IN 1-D AND 2-D DATA:	
fitcircle	Finds best-fitting great or small circles
grdtrend	Fits polynomial trends to grdfiles ($z = f(x,y)$)
trend1d	Fits polynomial or Fourier trends to $y = f(x)$ series
trend2d	Fits polynomial trends to $z = f(x,y)$ series

OTHER OPERATIONS ON 2-D GRIDS:	
grd2cpt	Make color palette table from grdfile
grdclip	Limit the z-range in gridded data sets
grdedit	Modify grd header information
grdffft	Operate on grdfiles in frequency domain
grdgradient	Compute directional gradient from grdfiles
grdhisteq	Histogram equalization for grdfiles
grdlandmask	Creates mask grdfile from coastline database
grdmask	Set nodes outside a clip path to a constant
grdmath	Reverse Polish calculator for grdfiles

STANDARDIZED COMMAND LINE OPTIONS:	
-Bxticks[:label:][/yticks[:label:]][/zticks[:label:]][/WESNZ+ /wesnz][/:.title:]	Tickmarks
-H[n_headers]	Input/output files have header record[s]
-J Map projection. Give <u>scale</u> or use upper case and specify map <u>width</u>	
-Ja lon0/lat0/scale	Lambert azimuthal equal area
-Jblon0/lat0/lat1/lat2/scale	Albers conic equal area
-Jclon0/lat0/scale	Cassini cylindrical
-Jelon0/lat0/scale	Azimuthal equidistant
-Jglon0/lat0/scale	Azimuthal orthographic
-Jhlon0/scale	Hammer equal area
-Jilon0/scale	Sinusoidal equal area
-Jklon0/scale	Eckert IV equal area
-Jllon0/lat0/lat1/lat2/scale	Lambert conic conformal
-Jmscale	Mercator
-Jnlon0/scale	Robinson
-Joalon0/lat0/az/scale	Oblique Mercator: origin and azimuth.
-Joblon0/lat0/lon1/lat1/scale	Oblique Mercator: two points
-Joclon0/lat0/lonp/latp/scale	Oblique Mercator: origin and pole
-Jpradius	Polar (θ, r) projection
-Jqlon0/scale	Equidistant Cylindrical (Plate Carré)
-Jrlon0/scale	Winkel Tripel
-Jslon0/lat0/scale	General Stereographic
-Jtlon0/scale	Transverse Mercator
-Juzone/scale	Universal Transverse Mercator (UTM)
-Jwlon0/scale	Mollweide projection
-Jxscale[/yscale][[d]]	Linear, log ₁₀ , and x^a-y^b projections
-Jylon0/lats/scale	General Cylindrical equal area
-K	Append more PostScript later
-O	This is an overlay plot
-P	Select Portrait orientation
-Rwest/east/south/north[/zmin/zmax][[r]]	Specify Region of interest
-U[[dx/dy][[label]]]	Plot time-stamp on plot
-V	Run in verbose mode
-Xoff -Yoff	Shift lower left corner of plot[1/1]
-:	Expect y/x input rather than x/y
-ccopies	Set number of plot copies[1]