gnuplot Plotting from the shell

CONCEPTS

Settings stick until changed: set options stay active for later plots. Use unset <option> or reset to clear them.

Data / function file or expression
↓ `set ...`
Settings terminal, labels, ranges
↓ `plot`
Plot using, with, title
↓ `set output`
Output window, png, svg, pdf

Always set terminal first, then output, then plot. Call unset output at the end so the file is flushed and closed.

RUNNING

`gnuplot`
Start interactive prompt

`gnuplot <script.gp>`
Run a script file

`gnuplot -persist -e "plot sin(x)"`
Plot and keep the window

`gnuplot -e "<cmds>" <script.gp>`
Run a command, then a script

`help <topic>`
Built-in help

PLOTTING

`plot <expr>`
Plot a function of x

`plot '<file>'`
Plot a data file (column 1 vs 2)

`plot '<file>' using 1:3`
Pick columns for x and y

`plot '<f1>', '<f2>'`
Several datasets in one plot

`plot <a>, <b> title '<name>'`
Name a curve in the legend

PLOTTING (cont.)

`plot [<x0>:<x1>] [<y0>:<y1>] <expr>`
Set ranges for this plot

STYLES

`with lines`
Join points with lines

AXES AND LABELS

`set title '<text>'`
Plot title

`set xlabel '<text>'`
X axis label

`set ylabel '<text>'`
Y axis label

`set xrange [<min>:<max>]`
Fix the x range

`set datafile separator ','`
Read CSV

OUTPUT

`set terminal png size 800,600`
Raster image

`set output '<file>'`
Write output to a file

FIT AND STATS

`f(x) = a*x + b`
Define a function

`fit f(x) '<file>' using 1:2 via a,b`
Least-squares fit

MULTIPLOT AND SCRIPTING

`set multiplot layout 2,2`
Grid of plots

`unset multiplot`
Finish the multiplot