

NAME

`gsl-histogram` - compute histogram of data on stdin

SYNOPSIS

`gsl-histogram xmin xmax [n]`

DESCRIPTION

`gsl-histogram` is a demonstration program for the GNU Scientific Library. It takes three arguments, specifying the upper and lower bounds of the histogram and the number of bins. It then reads numbers from 'stdin', one line at a time, and adds them to the histogram. When there is no more data to read it prints out the accumulated histogram using `gsl_histogram_fprintf`. If `n` is unspecified then bins of integer width are used.

EXAMPLE

Here is an example. We generate 10000 random samples from a Cauchy distribution with a width of 30 and histogram them over the range -100 to 100, using 200 bins.

```
gsl-randist 0 10000 cauchy 30 | gsl-histogram -100 100 200 > histogram.dat
```

A plot of the resulting histogram will show the familiar shape of the Cauchy distribution with fluctuations caused by the finite sample size.

```
awk '{print $1, $3 ; print $2, $3}' histogram.dat | graph -T X
```

SEE ALSO

`gsl(3)`, **`gsl-randist(1)`**.

AUTHOR

`gsl-histogram` was written by Brian Gough. Copyright 1996-2000; for copying conditions see the GNU General Public Licence.

This manual page was added by the Dirk Eddelbuettel <edd@debian.org>, the Debian GNU/Linux maintainer for **GSL**.