

SMOOTH – Userguide

Version 1.0 (15-09-2017)

Author: Matteo Sestu

LINUX – UNIX O.S.

This is an open source program

Install

1. Download the folder
2. Untar the folder. You will find 4 files: `smooth.c`, `smooth_compile.sh`, `gnuplot.sh` and this small userguide
3. Open a shell window and go in the folder where the program is
4. Write
`./smooth_compile.sh`
and type *enter*
3. A 5th file (*smooth*) will be created

Execution

1. Open a shell window and go in the folder where the program is
2. Write
`./smooth`
and type *enter*
3. Write the input file name (check the input data file format!) and type *enter*
4. Write the smooth boundaries `p1` and `p2` and the smoothing level. The smoothing level is an integer number between 1 and 20.

Note that `p1` and `p2` aren't values but the n-points.

E.g. if you have 2000 data points, typing

`500 1000 6`

you are smoothing your data from the 500th point to the 1000th point with a smoothing level of 6.

Type *enter*

5. If you have GNUPLOT installed on your computer a GNUPLOT shell will open and your input

data and your smoothed data will be plotted

6. To exit type *enter* in the shell window

Output data

A file named *smoothed.out* is created containing your x y smoothed data

Input data file format

first row must be the number of data points

following rows must be the x y data

E.g.:

```
13
1.0  1002.6
1.1   970.4
1.2   950.1
1.3   871.2
1.4   891.6
1.5   901.0
1.6   905.1
1.7   941.3
1.8  1200.6
1.9  1540.2
2.0  2320.6
2.1  1301.9
2.2   940.5
```