

Icon_App.tiff ↵

General Help

SciPlot is a scientific 2D plotting and manipulation program. Various functions are available in SciPlot:

- free number of data points, data buffers, and document windows
- macro programming language with more than 120 functions
- a general multilevel undo function
- ASCII import and export
- EPS export
- image import (EPS and TIFF)
- copy, cut, paste
- selective open and save

- grids
- plotting in many styles
- separate control about each graphic attribute
- automatic or manual defined axis steps
- automatic legend
- subviews
- linear and logarithmic axes
- two different axes
- forward and reverse axis plotting
- text and graphic
- color support
- data zoom and document zoom
- normalizing and moving
- axis conversions
- free hand data manipulations (cut, edit, move, etc.)
- spreadsheet like data editor
- sorting of data
- absolute, relative, and free defined error bars
- calculating with buffers (+, -, *, /)

- background subtractions (linear,shirley,tougaard, bezier)
- integration and relative integration
- fitting of one or more free defined functions
- linear, logarithmic, and exponential regression
- calculations (+, -, *, /, sin, cos, log, etc.)
- function generator
- more than 60 builtin function for expressions
- spline interpolation
- least square smooth and FFT smooth
- differentiation and integration
- FFT (with data windowing)
- ESCA calculations and database

and something more.

The basis of 2D plotting is a set of XY data (and maybe error values). Within SciPlot these data are stored in data buffers which are managed by the *File Inspector*. The number of data buffers and the number of XY pairs (points) is free. Another important thing is the *Inspector*. He controls all the manipulations you can do. At the top of the inspector

panel a pulldown menu appears which allows switching between different subinspectors.

There are four ways to import data into SciPlot:

1. Import from a ASCII file which should have a defined format
2. Enter data directly within the *Edit Inspector*.
3. Get data via the pasteboard by clicking the *Services* menu item in another program (e.g. Edit). This works only if SciPlot is installed in LocalApps, ~/Apps or another known NeXTStep search path. After installing, you have to relogin.
4. Copy,Cut, and Paste data from another SciPlot document.

After data were entered they may be manipulated in several ways, plotted, exported to an ASCII file, or saved in a SciPlot specific data format.

SciPlot generates four kinds of datafiles represented by the following icons:

Icon_Doc.tiff ↪ ... files which end with **.SP** or **.sp**

These files contain a complete document (data and graphic informations).

Icon_Exp.tiff ↪ ... files which end with **.EP** or **.ep**

These files contain a complete set of function definitions from the *Calculator and Function Generator*

Icon_Macro.tiff ↪ ... files which end with **.MP** or **.mp**

These files contain a complete set of macros from the *Macro Inspector*

Icon_Fit.tiff ↪ ... files which end with **.FP** or **.fp**

These files contain a complete fit parameter set from the *Function Fit Inspector*

license; ¬LICENSE

SciPlot is Shareware! Everybody can use, copy, and distribute SciPlot as often as he wants. If you like SciPlot and use it regularly you can remit DM 50 or \$35 or a bottle of good red wine.

Registered users automatically receive updates (via NeXTMail only) of SciPlot and I shall also try to implement their special wishes (e.g. for scientific manipulation functions I perhaps never heard of before).

Commercial distribution is strictly forbidden without the permission of the author.

warranty; ¬WARRANTY

There is no warranty whatsoever for SciPlot. The entire risk of using the program lies with you.

REMARK

Some of the functions in SciPlot allow unserious manipulation of data (*Point Edit, Curve*

Edit, etc.). If you do so, remember always that only your manipulation is unserious but not the function itself.

ack;¬ACKNOWLEDGMENT

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