

# **Plot3d Version 1.1**

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Now that that's out of the way, suggestions and bug reports would be greatly appreciated!! I can be contacted at any of the following :

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### **Introduction**

There are a variety of programs on the NeXT that will generate nice, publication quality, 3d plots (Mathematica, gnuplot, etc ...) However, there seems to be a lack of programs which allow real time interactive rotation and comparison of 3d data and formulas. Plot3d is an attempt to fill that gap.

The plots generated by plot3d aren't publication quality, and they aren't designed to be. The display algorithm used by plot3d is specifically designed for speed, not quality. While the NeXT is a pretty speedy machine, spinning 3d plots around on the screen in real time approaches the limits of it's capabilities. This program is especially good at doing quick plots to compare data with formulas, and to determine the best viewing angle to use with publication quality, but slower, programs.

For complete instructions, see the help panel.

### **Changes since 1.0**

Source included

Full mesh added (for functions only)

3d view can be resized

Printing works better (still won't print "dots")

Alt and az displayed in 3d window

Zoom In and Freeze added

ln() changed to log() and log10() added

Formula input larger

Formulas can contain '[' and ']' (treated like '(' and ')')

Uppercase ok in functions, eg 'Sin(x)' is ok now

Fixed bug in expressions like : 'x+3.2'

Infinites/undefined results are dealt with gracefully.

### **Plans for the Future:**

Get color to work (should be easy).

Fix density plot so there aren't holes when data is plotted.

Hidden line/dot removal (I know how to do it, it will just take some time ...)

Tic marks and/or a scale on the plot.

Improvements to function parser (since I didn't write it, this can be tricky)

More flexible spinning options.