DETACHED SOLUTIONS
Graph³ v1.0
by Kirk Meyer

Introduction

Graph³ is a 3D grapher for your TI−83+ or TI−83+ Silver Edition. It is faster than the TI−89's built−in grapher. It features rotation, zooming, tracing, and more. It also draws either wireframe or hidden surface plots.

Installation

Send the "graph3.8xk" file to your calculator using a graph link. You must have a link; applications cannot be typed in by hand.

To install, press [APPS] and then select "Graph³" from the list. A message box will popup, instructing you on how to proceed. (If you have other graphing applications installed, for example, Inequality or Transformation graphing, you will be asked to uninstall them.)

NOTE: If you have a previous version of Graph³ installed, you may upgrade by sending the new version and then running the application again to reinstall it. If you upgrade, you will lose your current 3D equation and window settings.

Functionality

To enter 3D mode, press [Y=] twice. You will remain in 3D mode until you push a key that exits graph mode (examples: [2nd]QUIT, program editor, memory check, etc). Graphing is very similar to the normal function graphing on the 83+, with the following differences:

- There are only two graph styles: wireframe (thin line) and hidden surface (filled triangle).
- [X,T,theta,n] inserts X as usual, but [STAT] inserts Y.
- Only three zooming options are available. Also, the cursor for zoom in and zoom out point selection is the same as the trace cursor to increase visibility.
- The Format menu has less options. Also, selecting PolarGC in 3D mode is the equivalent of a cylindrical coordinate system.
- [2nd]Stat Plot, [2nd]TblSet, [2nd]Calc, and [2nd]Table are not available in 3D mode.

There are also the following additional features:

- When viewing a graph (no cursor), push [GRAPH] again to instantly toggle the graph type between wireframe and hidden surface.
- Whenever viewing a graph, press [ALPHA]X, [ALPHA]Y, or [ALPHA]Z to view the graph from that axis.

Uninstallation

To uninstall, simply run the application again (from the [APPS] menu). It should display a message indicating that it has been installed.

IMPORTANT: Some applications will offer to uninstall Graph³. This will probably work, but it would be better to uninstall it yourself.

Version History

v1.0 Many bugs fixed, including compatibility problems with OS version 1.13. Tracing problem also fixed. Added a few minor features and another easter egg (yes, there are two now).

v0.9 Initial release.

Compatibility

Graph³ is not compatible with programs such as Inequality Graphing or Transformation Graphing. If you have these applications installed, Graph³ will request that you uninstall them in order to proceed. Graph³ may be installed at the same time as Symbolic and Omnicalc. *However*, for compatibilty reasons, it does not allow you to enter their tokens into the Z= equation.

Bug Reporting

If you find any bugs **not already listed below**, please send email to graph3@detachedsolutions.com and be as descriptive as possible. If possible, include the equation you were trying to graph, the window settings, the format settings, and any applicable information.

Known issues that I plan to solve:

- Cannot use [2nd]Calc to enter abstract coordinates in trace mode

Known "issues" that I might solve if I get extremely bored:

- [2nd]Left and [2nd]Right do nothing when viewing/tracing the graph

Suggestions that I might implement:

- Rotation on a third axis, using [PRGM] and [VARS]
- ZoomFit, to automatically calculate the Z range necessary for a graph

Thank You's

Thanks go out to...

- Michael Vincent (incessant rambling exchange)
- Dan Englender (help with hooks, suggestions)
- Rob van Wijk (great tester; many bug reports and suggestions)
- Jonah Cohen (for making and maintaining cz80)
- Matt Shepcar (I wouldn't have thought fast 3D was possible until I saw his torus demo)

Other people who have made suggestions and reported bugs so far:

- Shane Fry
- Patrick Poon
- Medevo
- DarkSlasher117
- Charlemagne

Disclaimer

This program is being provided to you for your use, free of charge. You may distribute it freely, but it may not be resold without prior written permission of the author. The program has been tested extensively. Nevertheless, it may still contain bugs which may adversely affect the performance of your calculator. In such a case, you agree that you will not hold me responsible for any such damages.