Subject: Re: plot (x,y,z) triplets as a surface?
Posted by Pavel Romashkin on Tue, 02 Nov 1999 08:00:00 GMT
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I think it is doooable. Here is what RSI thinks:

SURFACE

The SURFACE procedure draws a wire-mesh representation of a two-dimensional array projected into two dimensions, with hidden lines removed.
Restrictions
If the (X, Y) grid is not regular or nearly regular, errors in hidden line removal occur. The TRIGRID and TRIANGULATE routines can be used to interpolate irregularly-gridded data points to a regular grid before plotting.
If the T3D keyword is set, the 3D to 2D transformation matrix contained in !P.T must project the Z axis to a line parallel to the device Y axis, or errors will occur.
The surface lines may blend together when drawing large arrays, especially on low or medium resolution displays. Use the REBIN or CONGRID procedure to resample the array to a lower resolution before plotting.
Calling Sequence
SURFACE, Z [, X, Y]
Arguments
Z
The two-dimensional array to be displayed. If X and Y are provided, the surface is plotted as a function of the (X, Y) locations specified by their contents. Otherwise, the surface is generated as a function of the array index of each element of Z.
This argument is converted to single-precision floating-point before plotting. Plots created with SURFACE are limited to the range and precision of single-precision floating-point values.
X
A vector or two-dimensional array specifying the X coordinates of the grid. If this argument is a vector, each element of X specifies the X coordinate for a column of Z (e.g., X[0] specifies the X coordinate for Z[0,*]). If X is a two-dimensional array, each element of X specifies the X coordinate of the corresponding point in Z (Xij specifies the X coordinate for Zij).
This argument is converted to single-precision floating-point before plotting.
Y
A vector or two-dimensional array specifying the Y coordinates of the grid. If this argument is a vector, each element of Y specifies the Y coordinate for a row of Z (e.g., Y[0] specifies the Y coordinate for Z[*,0]). If Y is a two-dimensional array, each element of Y specifies the Y coordinate of the corresponding point in Z (Y ijspecifies the Y

coordinate for Zij).

Hope this helps,
Pavel

Don't worry about newbie questions. I feel like a newbie every day when I work with IDL. IDL has so much in it that I sometimes wonder if there is anyone who knows all about it. The good thing is that you can accomplish about everything by using 10% of its capability :-)
