"Mark C." wrote:
>
> I have: A f(x,y,z) where z=f(x,y). For the purpose of this discussion, say,
> a straight line in 3D space.
>
> I did: Using Plot_3box, I get a st. line in 3d space. But because of the
> source data, f(x,y,z)'s projection on the x-y plane, which is a st. line, is
> NOT parallel to either the x- or the y-axis.
>
> I need: To translate and/or rotate the data so that f's projection on the
> x-y plane is parallel to either the x- or y-axis.
>
> I am not (yet) familiar with object based graphics. So any suggestion in the
> 'old' or 'traditional' graphics method is appreciated.
>
> Thanks in advance.
>
> Mark C.

Mark - Once you have the projection of the points into the x-y plane, can't
you simply find the angle with repect to the x axis that the line makes, and
do a rotation? Let's say that you have two points x=[1,2] and y=[.1,.3] on the
x-y plane. IF you know a priori that all points fall on the line connecting
these points, you can replace x and y by x', y' corresponding to rotating the
points so that they are parallel to the x' axis. You would then plot
z=f(x',y').

In this example, you would want to rotate the x,y axes counterclockwise about
the origin by an angle
 theta=atan(y[1]-y[0],x[1]-x[0])
using
 x' = x cos(theta) + y sin(theta)
 y' = -x sin(theta) + y cos(theta)

If you use this to convert all of your x y values to x',y', you will have
f(x',y',z) that should have the straight line parallel to the x' axis.

Let me know if this works!
Dick French