Subject: Re: plot a circle in 3d with anisotropic axes
Posted by David Fanning on Fri, 12 May 2006 16:31:52 GMT

Klemens Barfus writes:

> I would like to plot a circle in a 3d plot [direct graphics], where the
> axes are not isotropic. The circle should lie in the y plane. If I use
> data coordinates I have to know the aspect ratio of z and y axis and
> have to generate an ellipse ? In 2d I could use usersym where this
> scaling is done automatically, but in 3d ?

Use PLOTS with T3D keyword set.

> How to get the ratio between the two axes ?

ratio = (!Z.CRange[1] - !Z.CRange[0]) / (!X.CRange[1] - !X.CRange[0])

> How to get the ellipse ?

  http://www.analyzemath.com/EllipseEq/EllipseEq.html

See, for example TVELLIPSE or TVCIRCLE in the NASA Astronomy Library.

Cheers,

David
--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.dfanning.com/