Subject: Re: xrange,yrange and zrange in surface
Posted by hahn on Wed, 24 Jul 1996 07:00:00 GMT
View Forum Message <> Reply to Message

Mirko Vukovic <mirko.vukovic@grc.varian.com> wrote:

> When I apply the xrange, yrange or zrange keywords in the surface
> function, the surface plot overflows the boundaries of the plot. What
> does one do about that?

The keywords [xyz]range work differently in 2D and 3D while the
primary effect is the same: They tell what to write at the origin and
the end part of the axes. Nothing more! Of course, IDL obeys the
axis labeling and adjusts the line/surface drawing accordingly:

When drawing contour lines and you specify xrange=[min_val, max_val]
the contour lines will not extend over the plot area which is setup by the
axis box.

A simple 2D example:

```
dat = dist(50)
contour, dat
window, 1
contour, dat, xrange=[8,22]
window, 2
contour, dat, xrange=[8,22], xstyle=1
```

In window 0 you'll see the entire contour while in window 1 clipping of the
contour lines occur at [5,25]. IDL rounds the "odd" interval <8,22> to nice
numbers. With xstyle=1, as shown in window 2 the rounding is suppressed.

In 3D, however, no limiting occurs! Try

```
window, 3
surface, dat, xrange=[8,22]
```

The flying carpet is clipped at the window border!
If you want to have the data clipped you need to call slicer.pro
Of course, slicer need volume data, so if you have a simple
surface, you need to make a very thin volume of your data ....

> --
> Mirko Vukovic, Ph.D. mirko.vukovic@grc.varian.com
> Varian Research Center Phone: (415) 424-4969
> 3075 Hansen Way, M/S K-109 Fax: (415) 424-6988
> Palo Alto, CA 94304-1025

Hope this helps
Norbert