Subject: Re: change linear scale to a non-linear
Posted by Clay Kirkendall on Thu, 09 Aug 2001 18:49:15 GMT

Kim Nielsen wrote:

> Hi,
>
> I have a two dimensional data set with one dimension is time and the
> other is the data samples. Each data bin corresponds to an look angle
> and I am using the TV command to show the data and then use plot
> command to put on the axis (time and look angle). What I would like to
> do now is to change from look angle to geographic latitude. Since this
> is a non-linear relation I need to scale the data set in the same way.
> Is there an easy way to do so when I am using the TV command ?
>
> Thanks,
> Kim

Kim,
  I have done something similar to go from linear to log axis for an
image. There may be a better way but this will go through the image row by
row and interpolate the data onto a nonlinear grid. Then just use tv,
newimage to display the image with the new (nonlinear) axis.

```
    newimage=image
    for i=0, n_lines-1 do $
        newimage[*, i]=interpol(image[*, i], linearaxis,
nonlinearaxis)
```

n_lines is the number of rows in the image, linearaxis is a vector with
the original linear axis, and nonlinearaxis is vector containing the
nonlinear axis values.

Clay