Subject: Re: why do not the results agree?
Posted by Benjamin Hornberger on Thu, 21 Apr 2005 14:46:28 GMT

lixiaoyao wrote:
> thank you so much.this time IDL give me the correct answer. Can you
> kindly explain to me what is the the normalized coordinates.
>   Thank you so much
>

Normalized coordinates go from 0 to 1 in each direction, i.e. the lower
right corner of the window has the normalized coordinates (1., 0.).

Device coordinates are pixels. In a window 256 by 256 pixels large, the
lower right corner has the device coordinates (255, 0) (count from
zero). On the postscript device, you don't want to use device
coordinates because the depend on resolution.

Data coordinates refer to a plot coordinate system. If you have a line
plot and the axis ranges are (0, 100) and (0, 50) in X and Y, the center
position of the plot frame (not the window!) has data coordinates (50,
25). The conversion to / from data coordinates of course depends on the
position of the plot frame in the window, which is stored in some system
variables (!x, !y, !z, I believe).

Many plot routines take keywords /NORM, /DEVICE or /DATA to specify
which coordinates you want to work with.

Have a look at the help entry for CONVERT_COORD and other entries under
"coordinate(s)" in the help index.

Benjamin