Subject: Re: how to draw three-dimension graph using IDL
Posted by Paolo Grigis on Tue, 19 Apr 2005 15:54:15 GMT
View Forum Message <> Reply to Message

lixiaoyao wrote:
> thank you so much,you are so powerful.
> Paolo Grigis wrote:
>
>> for a surface, you could try:
>>
>> x=4*!pi*findgen(101)/100
>> y=4*!pi*findgen(101)/100
>>
>> xx=rebin(x,n_elements(x),n_elements(y))
>> yy=rebin(transpose(y),n_elements(x),n_elements(y))
>
> why does there need to transpose? I am a little bit confuse.
Well, of course you have to try to understand the code
for yourself, the best way to do it is to try out with
a simple example:

```
x=[1,2,3]
y=[1,2,3]

xx=rebin(x,n_elements(x),n_elements(y))
yy=rebin(transpose(y),n_elements(x),n_elements(y))

IDL> print,xx
       1       2       3
       1       2       3
       1       2       3
IDL> print,yy
       1       1       1
       2       2       2
       3       3       3
```
(you see why I had to transpose to get yy?)

```
IDL> z=xx+yy
IDL> print,z
       2       3       4
       3       4       5
       4       5       6
```

Now z[i,j] is equal to x[i]+y[j], and the "rebin" call
was used to inflate the x and y array in order to avoid
the need of writing two nested for loops over i and j
to fill out the values of z[i,j]=x[i]+y[j].

Paolo

>
>> shade_surf,sin(xx)*sin(yy),xx,yy
