Subject: Re: How to plot many lines simultaneously
Posted by David Fanning on Tue, 05 Nov 2002 13:20:04 GMT
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lily_zhang (fengliza@sina.com) writes:

> Now I have two matrices, X and Y. Supposing X = FltArr(100), Y =
> FltArr(8,100),
> I just wonder how to plot all the columns of Y as the functions of X
> in an image simultaneouly.

I'd try something like this.

```
Plot, x, y[0,*], YRange=[Min(y),Max(y)]
FOR j=1,7 DO OPlot, x, y[j,*]
```

You probably want each plot in a different color or
line style so you can tell them apart, but just add
the appropriate keywords.

Cheers,

David
--
David W. Fanning, Ph.D.
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Phone: 970-221-0438, E-mail: david@dfanning.com
Coyote's Guide to IDL Programming: http://www.dfanning.com/
Toll-Free IDL Book Orders: 1-888-461-0155

Subject: Re: How to plot many lines simultaneously
Posted by R.G. Stockwell on Tue, 05 Nov 2002 14:34:09 GMT
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lily_zhang wrote:
> Now I have two matrices, X and Y. Supposing X = FltArr(100), Y =
> FltArr(8,100),
> I just wonder how to plot all the columns of Y as the functions of X
> in an image simultaneouly.

```
plot,x,y(0,*)
for i= 1,7 do oplot,x,y(i,*)
```

Cheers,
bob

PS
  X = findgen(100)
  Y = randomn(seed,8,100)
creates a far more interesting plot than your example

Subject: Re: How to plot many lines simultaneously
Posted by Pavel A. Romashkin on Tue, 05 Nov 2002 21:00:58 GMT
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David Fanning wrote:
>
> lily_zhang (fengliza@sina.com) writes:
>
>> Now I have two matrices, X and Y. Supposing X = FltArr(100), Y =
>> FltArr(8,100),
>> I just wonder how to plot all the columns of Y as the functions of X
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>
> I'd try something like this.
>
>   Plot, x, y[0,*], YRange=[Min(y),Max(y)]
>   FOR j=1,7 DO OPlot, x, y[j,*]

This is plotting *subsequently*. For simultaneous, he'd have to do a
Countour, huh?
Am I being a little ... retentive? Sorry :-)
Cheers,
Pavel

Subject: Re: How to plot many lines simultaneously
Posted by David Fanning on Tue, 05 Nov 2002 21:45:17 GMT
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Pavel A. Romashkin (pavel_romashkin@hotmail.com) writes:

> This is plotting *subsequently*. For simultaneous, he'd have to do a
> Countour, huh?
> Am I being a little ... retentive? Sorry :-)

Talk about retentive. I got all hot and bothered this
morning that my FSC_COLOR program wouldn't allow me
to specify a vector of drawing colors in a way that
would allow me to loop in this little example I gave
this morning. I spent half the day adding that little
feature and more to some of my most stalwart programs. :-(

The example should have read:

```
d = FSC_Color(['charcoal', 'yellow'], Colors=c)
Plot, x, y[0,*], Color=c.charcoal, Background=c.yellow, /NoData
drawcolors = FSC_Color(['green', 'dodger blue', 'firebrick', $
   'pale green', 'dark goldenrod', 'moccasin', 'orchid'])
FOR j=0,7 DO OPlot, x, y[j,*], Color=drawcolors[j]
```

Now, how's that for a half day's work!!

Cheers,

David

P.S. Let's just say even tennis coaching is beginning to
look lucrative to my wife. :-(

--
David W. Fanning, Ph.D.
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Coyote's Guide to IDL Programming: http://www.dfanning.com/
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Subject: Re: How to plot many lines simultaneously
Posted by Jeff Guerber on Wed, 06 Nov 2002 05:47:01 GMT
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On Tue, 5 Nov 2002, David Fanning wrote:

> lily_zhang (fengliza@sina.com) writes:
>
>> Now I have two matrices, X and Y. Supposing X = FltArr(100), Y =
>> FltArr(8,100),
>> I just wonder how to plot all the columns of Y as the functions of X
>> in an image simultaneouly.
>
> I'd try something like this.
>
> Plot, x, y[0,*], YRange=[Min(y),Max(y)]
> FOR j=1,7 DO OPlot, x, y[j,*]

Lily, since no one else has mentioned this I'd just like to add that, although it doesn't make a noticeable difference in this small example, if you're doing this A LOT or the arrays are much bigger, it's much more

efficient if Y = FltArr(100,8) (and you make the corresponding changes to David's programlet). Remember that in IDL, as in Fortran, the left index varies the fastest.

Jeff Guerber
