
Subject: plots?

Posted by [bin_zheng_99](#) on Mon, 19 Aug 2002 22:33:12 GMT

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Hello, All,

I have a problem about using plots. I want to use two plots for two different data sets at the same time. If I just use one plots for one data set, there is no problem. But when I use two, it doesn't work. It seems the two plots interrupt each other. I want to know why?

Thanks very much for any kind of help!

I attach my simple program below:

```
.*****
,
pro testPlots
arrayT = fltarr(11)
arrayX = fltarr(11)
arrayY = fltarr(11)
window, 1
x1 = !X & y1 = !Y & p1 = !P
window, 2
x2 = !X & y2 = !Y & p2 = !P
for i=0, 10 Do begin
    arrayY[i] = cos(i+1)
    arrayX[i] = sin(i+1)
    arrayT[i] = i
wset, 1
!X = x1 & !Y = y1 & !P = p1
    plots,arrayT[i], arrayX[i], /continue
wset, 2
!X = x2 & !Y = y2 & !P = p2
    plots,arrayT[i], arrayY[i], /continue
endfor

end

.*****
,
```

Subject: Re: plots

Posted by [Paolo Grigis](#) on Fri, 02 Mar 2007 13:18:31 GMT

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I don't believe there is a unique solution,
how would you connect these points?

```
x=[0,1,1,0,0.5]
y=[0,0,1,1,0.5]
```

Ciao,
Paolo

ashraf wrote:

```
> Hello,
> I have col and row coordinates of a polygon that I would like to plot
> on an image using PLOTS function, but the data is noncontiguous, how
> can I re-arrange the data so that it is contiguous, i.e. starting from
> an arbitrary point on the polygon, the next point is the one connected
> to the first point say by moving anticlockwise and so on. Otherwise is
> there another function in IDL that can plot noncontiguous data over an
> image?
> Thanks.
>
> ashraf.
>
```

Subject: Re: plots
Posted by [ashraf](#) on Fri, 02 Mar 2007 15:57:42 GMT
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These are integer pixel coordinates which form a closed boundary of an object, so each pixel will have at least two neighbours. I guess my question is how do you trace the boundary of an object if the all you have is an 2D array of noncontiguous pixel coordinates.

Cheers
ashraf.

Paolo Grigis wrote:

```
> I don't believe there is a unique solution,
> how would you connect these points?
>
> x=[0,1,1,0,0.5]
> y=[0,0,1,1,0.5]
>
>
> Ciao,
> Paolo
>
> ashraf wrote:
>> Hello,
```

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>> on an image using PLOTS function, but the data is noncontiguous, how
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>> to the first point say by moving anticlockwise and so on. Otherwise is
>> there another function in IDL that can plot noncontiguous data over an
>> image?
>> Thanks.
>>
>> ashraf.
>>

Subject: Re: plots

Posted by [David Fanning](#) on Fri, 02 Mar 2007 16:05:21 GMT

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ashraf writes:

> These are integer pixel coordinates which form a closed boundary of an
> object, so each pixel will have at least two neighbours. I guess my
> question is how do you trace the boundary of an object if the all you
> have is an 2D array of noncontiguous pixel coordinates.

I think the answer was, you don't. At least not in
any unique way. If you DO want a unique path, you
are going to have to come up with something other than
this. :-)

You can always look for the point that is closest
to the point you are sitting on, but there is absolutely
no guarantee that this is the *next* point in any meaningful
sense.

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: plots

Posted by [David Fanning](#) on Fri, 02 Mar 2007 16:13:09 GMT

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David Fanning writes:

```
>
>> These are integer pixel coordinates which form a closed boundary of an
>> object, so each pixel will have at least two neighbours. I guess my
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>
> I think the answer was, you don't. At least not in
> any unique way. If you DO want a unique path, you
> are going to have to come up with something other than
> this. :-)
```

One possibility might be to find the convex hull of these points. This is not the polygon formed by the points, but rather the polygon that encloses all the points. Maybe that's good enough for what you have in mind.

If so, here is an article:

http://www.dfanning.com/tips/convex_hull.html

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: plots

Posted by [ashraf](#) on Tue, 06 Mar 2007 15:59:35 GMT

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again I must stress that these are noncontiguous but discreet coordinates which form a closed polygon, for example let

x = [0,1,1,0,0,2,2,2]

y = [0,1,2,2,1,0,1,2]

These points can be uniquely re-arranged as

x = [0,1,2,2,2,1,0,0]

y = [0,1,0,1,2,2,2,1]

to form a closed non-intersecting outline. My question is how can I re-arrange these points efficiently?

Thanks.

David Fanning wrote:

> David Fanning writes:
>
>>
>>> These are integer pixel coordinates which form a closed boundary of an
>>> object, so each pixel will have at least two neighbours. I guess my
>>> question is how do you trace the boundary of an object if the all you
>>> have is an 2D array of noncontiguous pixel coordinates.
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>> I think the answer was, you don't. At least not in
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>
> If so, here is an article:
>
> http://www.dfanning.com/tips/convex_hull.html
>
> Cheers,
>
> David
> --
> David Fanning, Ph.D.
> Fanning Software Consulting, Inc.
> Coyote's Guide to IDL Programming: <http://www.dfanning.com/>
> Sepore ma de ni thui. ("Perhaps thou speakest truth.")
