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 = x1 \& !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 coonected
- > 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

Paolo Grigis wrote:

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

>

ashraf.

- > 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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- >> 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
- >> question is how do you trace the boundary of an object if the all you
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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 strees 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 rearrange these points effeciently?

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
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> 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.")
```