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Subject: Re: help with data points of contour.

Posted by Nando lavarone on Wed, 25 Aug 1999 07:00:00 GMT

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<HTML>

Peter Brooker wrote:

<BLOCKQUOTE TYPE=CITE>Consider the following simple program.

```
<P>nn=101
<BR>x=findgen(nn)-(nn-1.)/2.
<BR>y=x
<BR>z=fltarr(nn,nn)
<BR>for i=0,(nn-1) do begin
<BR>for j=0,(nn-1) do begin
<BR>&nbsp;&nbsp; z(i,j)=sqrt(x(i)^2+y(j)^2)
<BR>&nbsp;&nbsp; endfor
<BR>&nbsp;&nbsp; endfor
<BR>contour,z,x,y,levels=[10,20,30,40]
<BR>end</BLOCKQUOTE>
a question.why do you use loop?
<BR>&nbsp;I use the technique:
```

<P>pro test

```
<P>&nbsp;&nbsp;&nbsp; nn=101
```

```
<P>&nbsp;&nbsp;&nbsp; x = findgen(nn)-(nn-1.)/2.
<BR>&nbsp;&nbsp;&nbsp; y = x
<BR>&nbsp;&nbsp;&nbsp; x = x#replicate(1,nn)
<BR>&nbsp;&nbsp;&nbsp; y = replicate(1,nn)#y
```

```
<P>&nbsp;&nbsp;&nbsp; z = sqrt(x^2+y^2)
<BR>&nbsp;
<BR>end
```

<P>don't you think it is more readable and maybe, I didn't test it, quicker?

<BR>&nbsp;

<BLOCKQUOTE TYPE=CITE>I now want to determine the x,y data points that form the z=20 contour.</BLOCKQUOTE>

I think that if you are interested only in discrete value of your coordinate,it is sufficient to do:

```
<P>index&nbsp;&nbsp;&nbsp;&nbsp; = where(z eq 20)
<BR>x_index&nbsp; =&nbsp; index mod nn
<BR>y_index&nbsp; =&nbsp; index / nn
<BR>print, x_index, y_index
```

<P>bye.

<PRE>--&nbsp;  
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