Subject: Re: cursor command
Posted by gpeterso on Fri, 05 Apr 2013 21:08:00 GMT
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On Wednesday, April 3, 2013 6:48:07 AM UTC-7, rr...@stsci.edu wrote:
> On Tuesday, April 2, 2013 10:11:01 PM UTC-4, gpet...@ucsc.edu wrote:
>
>> http://www.idlcoyote.com/ip_tips/image_profile.html
>
>>
>
>>
>
>>
>
>> This link i posted describes what I was previously talking about with the image profiling. I just need to be able to accurately find the two endpoints for any line I choose on the contour map.
>
>
>
> Ok. So now I think I know what's wrong. You want to draw a contour plot, then select a line, then have it plot the profile along that line. Got it. Well, I suppose a line is given by either two points: (x1,y1) and (x2,y2) or by a slope-intercept pair (m,b). Of course it's easy to convert between the two, but since you'e asked about cursor, I suppose we should use the two xy pairs.
>
>
>
> Here's the pseudocode.
>
> 1. plot the contour.
>
> 2. click once to get one point.
>
> 3. click a second time to get the other point.
>
> 4. draw the profile
>
> 5. Goto 2 or quit.
>
>
>
> Here's some IDL code
>
> ;step 0 read the image
>
> img=dist(200)
>
> sz=size(img,/dim) ;the size of the image

```
>
>
>
>  ;step 1. draw the contour
>
>  window,1,retain=2,xsize=400,ysize=400
>
>  contour,img
>
>
>
>  npoints=100                    ;number of the line plot
>
>
>
>  ;start a while loop so we can "goto" step 2
>
>
>
>
>
>
>  ;save the current state of the mouse button.  this is generally
>
>  ;a good habit anytime you modify or test the system variables
>
>  mousebutton=!mouse.button & !mouse.button=0
>
>  print,'right click to quit'
>
>  while !mouse.button ne 4 do begin
>
>     ;double chcek that the window is set to the main one.
>
>     wset,1
>
>
>
>     print,'please click on one point.'
>
>     cursor,x1,y1,3,/data
>
>     if x1 lt 0 || y1 lt 0 || x1 gt sz(0) || y1 gt sz(1) then begin
>
>        print,'first point is off the image.'
>
>        goto,skip
>
>     endif
```

```
>
>
>
>    print,'please click on a second point.'
>
>    cursor,x2,y2,3,/data
>
>    if x2 lt 0 || y2 lt 0 || x2 gt sz(0) || y2 gt sz(1) then begin
>
>       print,'second point is off the image.'
>
>       goto,skip
>
>    endif
>
>
>
>
>
>
>
>
>    ;okay at this point, we have the two x,y pairs
>
>    ;over plot the line
>
>    oplot,[x1,x2],[y1,y2],line=1
>
>
>
>    ;now extract the contour (via Fanning's webpage)
>
>    xloc=x1+(x2-x1)*findgen(npoints)/(npoints-1)
>
>    yloc=y1+(y2-y1)*findgen(npoints)/(npoints-1)
>
>    line=interpolate(img,xloc,yloc)
>
>
>
>    ;now create a second window for the plot
>
>    window,3,retain=2,xsize=400,ysize=400
>
>    plot,line
>
>
>
>    ;set the window back to the first (in case you want to do it again)
```

```
>
>    wset,1
>
>
>
>    skip:
>
> endwhile
>
>
>
> ;if here, menas you quit.  so lets uset the mousestate
>
> !mouse.button=mousebutton
```

Thank you russell! works great!
