Subject: Cross-section
Posted by Richard Dixon on Tue, 27 Aug 1996 07:00:00 GMT
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As part of my Ph.D I am starting, I need to be able to display some grpahics. The data set is integers in x,y and z positions, with x and y part of a 92x92 grid, with 19 z levels. I need to display a vertical cross section along any line in the x,y plane.

Is this easily done, and can anyone point me to any commands that I can use - I am a new user of IDL!

Many thanks,

Rich

Subject: Re: Cross-section
Posted by pford on Sat, 07 Sep 1996 07:00:00 GMT
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In article <Pine.SGI.3.91.960828160955.9999C-100000@swsgi01>, Richard Dixon <rdixon@swsgi01> wrote:

> As part of my Ph.D I am starting, I need to be able to display some
> grpahics. The data set is integers in x,y and z positions, with x and y
> part of a 92x92 grid, with 19 z levels. I need to display a vertical
> cross section along any line in the x,y plane.
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> Is this easily done, and can anyone point me to any commands that I can
> use - I am a new user of IDL!
>
> Many thanks,
>
> Rich

From one IDL-novice to another, you can take this for what it is worth.

I can think of two ways.

1) The slicer command R 1-812, looks like just what you want.

2) a klugy way:

```
  M = intarr(92,92,19)
  xy = intarr(92,92)
  xz = intarr(92,19)
    .
    .
```

```
xz = M(*,5,*)  ;xz is now the 92,19 pixel slice where y = 5
tvslc, xz
```

Subject: Re: Cross-section
Posted by David Fanning on Tue, 03 Aug 2004 12:59:51 GMT
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Einar M. Einarsson writes:

> I have some meteorological data in 3d arrays and want to be able to
> plot crossections out of these arrays in any direction. That is in an
> "ideal IDL world" I would have a procedure like this:
>
> Cr_sect=get_a_cross_section_procedure(start_point, end_point)
>
> Where data is a 3d array, lets say (100,200,40) and then start_point
> would be eg. [60,70] and end_point [90,180] that is I want an array
> out of this procedure that would represent that non perpendicular line
> in the data array.
>
> Does anybody know about a IDL tool that I can use to do this?

Here is an article that illustrates how to create
an arbitrary profile between two points in a 2D
array. I think all you will have to do is extend
the concept to 3D.

http://www.dfanning.com/ip_tips/image_profile.html

Cheers,

David

P.S. Please be sure to send me the details when you get
this done so I can update my article. :-)

--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.dfanning.com/
