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Subject: Re: Interactive plotting  
Posted by [davidf](#) on Tue, 20 May 1997 07:00:00 GMT  
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John Harlander writes:

> Can someone point me to a method for interactively extracting and plotting a  
> row or a column from two-dimensional data? I recall watching someone do this  
> in IDL. The image was put on the screen and the cursor was used to  
select the  
> row or column.

I will be very disappointed, John, if you don't hear from about  
500-600 people who have written this program in one of my  
IDL programming classes. :-)

Here is an non-widgetized example program called ROWCOL.  
There is an IDL library program called PROFILES that does  
about the same thing.

Cheers!

David

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PRO ROWCOL, image

ON\_ERROR, 1

IF N\_ELEMENTS(image) EQ 0 THEN MESSAGE, 'You must pass an IMAGE parameter.'

    ; Get image size.

s = SIZE(image)  
xsize = s(1)  
ysize = s(2)

    ; Open an image window the right size. Display image.

WINDOW, XSIZE=xsize, YSIZE=ysize, /FREE, TITLE='Image Window'  
imageWindow = !D.WINDOW  
TVSCL, image

    ; Create a window for the profile plots.

WINDOW, XSIZE=500, YSIZE=300, /FREE, TITLE='Profile Window'  
profileWindow = !D.WINDOW  
col = xsize / 2

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row = ysize / 2

; Make the display window the current window.

WSET, imageWindow

; Initialize the !MOUSE.BUTTON system variable.

!MOUSE.BUTTON = 0

; Set window up for two plots.

!P.MULTI = [0, 2, 1, 0, 1]

; Go into your loop.

WHILE !MOUSE.BUTTON NE 4 DO BEGIN

; Draw the profiles in the profile window.

WSET, profileWindow
PLOT, image(col, *), TITLE='Column Profile', $
  YRANGE=[MIN(image), MAX(image)], $
  XRANGE=[0,xsize], XSTYLE=1, $
  XTITLE='Column ' + STRTRIM(col, 2), YTITLE='Pixel Value'
PLOT, image(*, row), TITLE='Row Profile', $
  YRANGE=[MIN(image), MAX(image)], $
  XRANGE=[0,ysize], XSTYLE=1, $
  XTITLE='Row ' + STRTRIM(row,2), YTITLE='Pixel Value'

; Make the image window the current window.

WSET, imageWindow

; Get the cursor location.

CURSOR, col, row, /DEVICE

ENDWHILE

; Turn off !P.MULTI system variable.

!P.MULTI = 0
END

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