
Subject: Re: Function that returns the dimension of an array?

Posted by [rmoss4](#) on Sat, 02 Nov 2002 01:18:22 GMT

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K Banerjee wrote:

- > Is there such a function in IDL? Say the array A is 2 by 3. I am looking for
- > a function that returns an array containing the entries 2 and 3.
- >
- > Thanks.

You are looking for the SIZE function.

r

Subject: Re: Function that returns the dimension of an array?

Posted by [David Fanning](#) on Sat, 02 Nov 2002 04:40:16 GMT

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K Banerjee (kbanerjee@ucwphilly.rr.com) writes:

- > Is there such a function in IDL? Say the array A is 2 by 3. I am looking for
- > a function that returns an array containing the entries 2 and 3.

You are looking for this:

`dim = Size(array, /Dimensions)`

While we are on the subject though, here is a one-off
that I find myself using over and over in my own work.
I use it to find the proper window size for images,
when I am not sure if I have an 8-bit or 24-bit
image, or how the 24-bit image is interleaved. Might
be handy to someone. :-)

`dim = ImageDimensions(unkownImage, XSize=xsize, $
YSize=ysize, TrueIndex=trueIndex
Window, XSize=xsize, YSize=ysize
TV, unknownImage, True=trueIndex`

Cheers,

David

--

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```
*****  
,FUNCTION ImageDimensions, image, $  
  
; This function returns the dimensions of the image, and also  
; extracts relevant information via output keywords. Works only  
; with 2D and 3D (24-bit) images.  
  
; All keywords are OUTPUT keywords.  
  
XSize=xsize, $      ; The X size of the image.  
YSize=ysize, $      ; The Y size of the image.  
TrueIndex=trueindex, $ ; Position of "true color" index (0 for 2D).  
XIndex=xindex, $     ; The position or index of the X image size.  
YIndex=yindex        ; The position or index of the Y image size.  
  
; Get the number of dimensions and the size of those dimensions.  
  
ndims = Size(image, /N_Dimensions)  
dims = Size(image, /Dimensions)  
  
; Is this a 2D or 3D image?  
  
IF ndims EQ 2 THEN BEGIN  
    xsize = dims[0]  
    ysize = dims[1]  
    trueindex = -1  
    xindex = 0  
    yindex = 1  
ENDIF ELSE BEGIN  
    IF ndims NE 3 THEN $  
        Message, /NoName, 'Unknown image dimensions. Returning.'  
        true = Where(dims EQ 3, count)  
        trueindex = true[0] + 1  
    IF count EQ 0 THEN Message, /NoName, 'Unknown image type. Returning.'  
    CASE true[0] OF  
        0: BEGIN  
            xsize = dims[1]  
            ysize = dims[2]  
            xindex = 1  
            yindex = 2  
        ENDCASE  
        1: BEGIN  
            xsize = dims[0]  
            ysize = dims[2]  
            xindex = 0
```

```
yindex = 2
ENDCASE
2: BEGIN
    xsize = dims[0]
    ysize = dims[1]
    xindex = 0
    yindex = 1
    ENDCASE
ENDCASE
ENDELSE
RETURN, dims
END
*****
,
```
