
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(unknownImage, 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

,
