
Subject: Re: extracting subarray (*,*,index) gives (1,1,index). WHY ???

Posted by [a2652099](#) on Tue, 20 Aug 1996 07:00:00 GMT

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In article <3219CC9A.53D7@neurologie.uni-duesseldorf.de>
knorr@neurologie.uni-duesseldorf.de (Uwe Knorr) wrote:

> i want to extract a line from a 3D image by doing
> line = image(*,*,z)

A line? Wouldn't that rather be image(a,b,*) ?

> i expect line to be a 1d vector with dimension dim(z)
> or to be more IDLish, i expect the following to hold
> size(line) == (z)
> but instead I get
> size(line) == (1,1,z)
> I hope you know what I mean.

If I do, I think using the REFORM command would help you, eg.

line = REFORM(image(a,b,*), z),
where z is the 3rd dimension of your array. This converts your (1,1,z)
array into the (z) array.

Alex

Subject: Re: extracting subarray (*,*,index) gives (1,1,index). WHY ???

Posted by [Thomas A. McGlynn](#) on Tue, 20 Aug 1996 07:00:00 GMT

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Uwe Knorr wrote:

>
> Dear reader,
>
> i want to extract a line from a 3D image by doing
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> I hope you know what I mean.
>
> Thanx for giving me some of your time,
>
> Uwe Knorr.
>

I'm a little confused by your message. I'm guessing what you want is something like:

```
x = fltarr(30,30,30)
y = x(1,1,*)
```

where you'd like y to be a one dimensional vector of length 30. If so then you need to rewrite the second statement as

```
y = reform(x(1,1,*))
```

while will get rid of the extra leading dimensions.

What you describe though is:

```
y = x(*,*,1)
```

which will return y as a two-dimensional array and suppress the third dimension automatically. I.e., we'd have

```
size(y) == (2,30,30,4,900)
```

Hope this helps,

Tom McGlynn

Subject: Re: extracting subarray (*,*,index) gives (1,1,index). WHY ???

Posted by [peter](#) on Wed, 21 Aug 1996 07:00:00 GMT

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Uwe Knorr (knorr@neurologie.uni-duesseldorf.de) wrote:

: Dear reader,

: i want to extract a line from a 3D image by doing
: line = image(*,*,z)
: i expect line to be a 1d vector with dimension dim(z)
: or to be more IDLish, i expect the following to hold
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: size(line) == (1,1,z)
: I hope you know what I mean.

Bit confusing here, line=image(*,*,z) will give you a (nx,ny,1) result. You probably meant you do line=image(x,y,*), which gives a (1,1,nz) result. If you want a (nz) result, do line=reform(image(x,y,*)). Reform, used like this, strips collapses leading dimensions of length 1.

Peter

Subject: Re: extracting subarray (*,*,index) gives (1,1,index). WHY ???

Posted by [Graeme K Harkness](#) on Thu, 22 Aug 1996 07:00:00 GMT

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Uwe Knorr wrote:

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> I hope you know what I mean.
>
> Thanx for giving me some of your time,
>
> Uwe Knorr.
>

I think I know what you mean. You should use the

REFORM

function to convert the 1x1xz sized array into a 1-d one of size z

Graeme

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Subject: Re: extracting subarray (*,*,index) gives (1,1,index). WHY ???

Posted by [lmudge](#) on Fri, 23 Aug 1996 07:00:00 GMT

