
Subject: subsetting a 3D array based on values from a 2D array

Posted by [eva.ivits-wasser](#) on Fri, 07 Feb 2014 13:25:04 GMT

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Hi everyone,

I have a 2D array (A) with dimensions of [ns,nl] (where ns=number of columns and nl=number of lines) and a 3D array (B) with dimensions of [ns,nl,nb] (where nb=number of bands). A is a classification image whereas B is a time-series, both have the same number of samples and lines.

I'd need to find a certain value in A, let's say 100 (which occurs several times) and then I want to subset those elements of B which "overlaps" with A, i.e. have the same position as A.

I've tried the where function but that gives me the one dimensional subscript of A and I don't quite manage to index B based on this subscript...

I've tried array_indices but did not get further with that either.

Any suggestions please?

Thanks,
Eva

Subject: Re: subsetting a 3D array based on values from a 2D array

Posted by [David Fanning](#) on Fri, 07 Feb 2014 13:37:36 GMT

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eva.ivits-wasser@ext.jrc.ec.europa.eu writes:

> I have a 2D array (A) with dimensions of [ns,nl] (where ns=number of columns and nl=number of lines) and a 3D array (B) with dimensions of [ns,nl,nb] (where nb=number of bands). A is a classification image whereas B is a time-series, both have the same number of samples and lines.

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> I've tried the where function but that gives me the one dimensional subscript of A and I don't quite manage to index B based on this subscript...

>

> I've tried array_indices but did not get further with that either.

>

> Any suggestions please?

```
dims = Size(A, /Dimensions)
```

```
indices = Where(A ...)
```

```
colrow = Array_Indices(dims, indices, /Dimensions)
```

```
cols = colrow[0,*]
```

```
rows = colrow[1,*]
valuesIwant = B[cols, rows, *]
```

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>

Sepore ma de ni thue. ("Perhaps thou speakest truth.")

Subject: Re: subsetting a 3D array based on values from a 2D array

Posted by [eva.ivits-wasser](#) on Fri, 07 Feb 2014 14:11:01 GMT

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YES, EXACTLY, THIS IS IT, IT WORKS!

THANKS A LOT (*10000000000)

EVA

Il giorno venerdì 7 febbraio 2014 14:37:36 UTC+1, David Fanning ha scritto:

> eva.ivits-wasser@ext.jrc.ec.europa.eu writes:

>

>

>

>> I have a 2D array (A) with dimensions of [ns,nl] (where ns=number of columns and nl=number of lines) and a 3D array (B) with dimensions of [ns,nl,nb] (where nb=number of bands). A is a classification image whereas B is a time-series, both have the same number of samples and lines.

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> cols = colrow[0,*]
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> valuesIwant = B[cols, rows, *]
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>
> Cheers,
>
>
>
> David
>
> --
>
> David Fanning, Ph.D.
>
> Fanning Software Consulting, Inc.
>
> Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>
>
> Sepore ma de ni thue. ("Perhaps thou speakest truth.")

Subject: Re: subsetting a 3D array based on values from a 2D array
Posted by [David Fanning](#) on Fri, 07 Feb 2014 15:11:50 GMT
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eva.ivits-wasser@ext.jrc.ec.europa.eu writes:

>
> YES, EXACTLY, THIS IS IT, IT WORKS!
>
> THANKS A LOT (*100000000000)
>
> EVA

Well, it's not cash, but it's *something*! ;-)

Cheers,

David

P.S. It's been well below 0 here in Colorado this week. The beer has nearly frozen and Coyote has had to switch to schnapps. But, effusive praise makes us warm, too. :-)

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>

Sepore ma de ni thue. ("Perhaps thou speakest truth.")
