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Subject: Help with Idl+Envi

Posted by [MaxA](#) on Fri, 16 Jul 2010 08:42:11 GMT

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Hi guys!

I need some help in image processing with IDL and Envi.

I have an image corresponding to the local Moran Index, computed through envi basic tools.

Its values range from -0.000189 and 0.008413.

When I open this image in envi, it is displayed as a greyscale image (8bit for each channel rgb).

What I'd like to do is to write an idl procedure that does the same mapping from floating values to rgb 8 bit.

I'm a bit stucked with that and any help would be precious!

Thanks everybody!

Max

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Subject: Re: help with idl

Posted by [Helder Marchetto](#) on Thu, 07 Feb 2013 14:26:46 GMT

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On Thursday, February 7, 2013 3:13:36 PM UTC+1, fd\_...@mail.com wrote:

> Does anyone know how to create a Toeplitz matrix in idl??

>

>

>

> Best Wishes

>

> Mar

Well, I'm not sure that this is what you are looking for and I don't think that this is the the "IDL" way, however it does the job:

```
IDL> n = 5
```

```
IDL> a = make_array(n,n)
```

```
IDL> OneLine = findgen(2*n)
```

```
IDL> FOR l=0,n-1 DO a[* ,l] = (shift(OneLine,l))[0:4]
```

```
IDL> print, a
```

```
0.000000  1.00000  2.00000  3.00000  4.00000
```

|         |          |          |          |          |
|---------|----------|----------|----------|----------|
| 8.00000 | 0.000000 | 1.00000  | 2.00000  | 3.00000  |
| 7.00000 | 8.00000  | 0.000000 | 1.00000  | 2.00000  |
| 6.00000 | 7.00000  | 8.00000  | 0.000000 | 1.00000  |
| 5.00000 | 6.00000  | 7.00000  | 8.00000  | 0.000000 |

Hope it helps.

Cheers,  
h

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Subject: Re: help with idl  
Posted by [Helder Marchetto](#) on Thu, 07 Feb 2013 14:28:45 GMT  
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On Thursday, February 7, 2013 3:26:46 PM UTC+1, Helder wrote:

> On Thursday, February 7, 2013 3:13:36 PM UTC+1, fd\_...@mail.com wrote:

>

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> Well, I'm not sure that this is what you are looking for and I don't think that this is the the "IDL" way, however it does the job:

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> IDL> n = 5

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> IDL> a = make\_array(n,n)

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> IDL> OneLine = findgen(2\*n)

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> IDL> FOR l=0,n-1 DO a[\* ,l] = (shift(OneLine,l))[0:4]

>

> IDL> print, a

```

>
> 0.000000  1.00000  2.00000  3.00000  4.00000
>
> 8.00000  0.000000  1.00000  2.00000  3.00000
>
> 7.00000  8.00000  0.000000  1.00000  2.00000
>
> 6.00000  7.00000  8.00000  0.000000  1.00000
>
> 5.00000  6.00000  7.00000  8.00000  0.000000
>
>
>
> Hope it helps.
>
>
>
> Cheers,
>
> h

```

Oh, yeah, to define the general elements you should edit the definition of OneLine. For instance you could try with:

```
OneLine = [0.0,1,2,3,4,8,7,6,5]
```

Cheers,  
H

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Subject: Re: help with idl

Posted by [Brian Daniel](#) on Thu, 07 Feb 2013 18:26:10 GMT

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On Thursday, February 7, 2013 9:13:36 AM UTC-5, fd\_...@mail.com wrote:

```

> Does anyone know how to create a Toeplitz matrix in idl??
>
>
>
> Best Wishes
>
> Mar

```

DIAG\_MATRIX can build this easily.

```
N=8
```

```
OneLine = Indgen(N)+1
```

```
a = make_array(N,N)
```

```
FOR ii=-N+1, N-1 DO a += Diag_Matrix(Replicate(OneLine[ii],abs(N-abs(ii))),ii)
```

The abs() business was to allow for lower triangular portion to be filled. I usually use upper triangular matrices.

-B

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Subject: Re: help with idl

Posted by [Brian Daniel](#) on Thu, 07 Feb 2013 18:26:35 GMT

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On Thursday, February 7, 2013 9:13:36 AM UTC-5, fd\_...@mail.com wrote:

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> Best Wishes

>

> Mar

And the Make\_Array call is not needed...

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