
Subject: Build 2D array from loops

Posted by [Matt G](#) on Mon, 22 Feb 2016 13:08:36 GMT

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Hi, new to IDL so please forgive if very simple request.

I'm trying to build an array where the values stored are in two columns: one with the values of *i* in my FOR loop, and the other the output of that FOR loop. To make it more complicated, within my FOR loop is an IF condition that skips over bad data.

How do I structure this code so that the array is built from the output of my loops?

Cheers

Subject: Re: Build 2D array from loops

Posted by [greg.addr](#) on Mon, 22 Feb 2016 14:30:15 GMT

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On Monday, February 22, 2016 at 2:08:39 PM UTC+1, Matt G wrote:

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>

> How do I structure this code so that the array is built from the output of my loops?

>

> Cheers

It's often possible to work without loops in IDL. I'd do it something like this:

```
IDL> i=indgen(10)
```

```
IDL> a=i^2 ;replace with your expression
```

```
IDL> b=transpose([[i],[a]]) ;combine into two column array
```

```
IDL> b
```

0	0
1	1
2	4
3	9
4	16
5	25
6	36
7	49
8	64
9	81

Use the `where()` function to filter out your bad values, e.g.

```
IDL> q=where(a lt 50) ;keep only values where a<50
```

```
IDL> b[,q]
  0   0
  1   1
  2   4
  3   9
  4  16
  5  25
  6  36
  7  49
```

cheers,
Greg

Subject: Re: Build 2D array from loops
Posted by [Matt G](#) on Thu, 25 Feb 2016 10:44:24 GMT
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On Monday, February 22, 2016 at 2:30:18 PM UTC, greg...@googlemail.com wrote:

> On Monday, February 22, 2016 at 2:08:39 PM UTC+1, Matt G wrote:

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>   7  49
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>   9  81
```

```
>
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>
> IDL> q=where(a lt 50) ;keep only values where a<50
> IDL> b[*,q]
>      0      0
>      1      1
>      2      4
>      3      9
>      4     16
>      5     25
>      6     36
>      7     49
>
> cheers,
> Greg
```

Couldn't work out how to avoid a loop completely (it's quite a lengthy process for the data) but managed to sort out my issue from your advice.

Thanks a bunch!
Matt
