
Subject: array concatenation in 2-D

Posted by [elwood](#) on Fri, 04 Apr 2008 18:38:54 GMT

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I have a loop which calculates two variables $x[i]$ and $y[i]$

At each iteration of the loop I calculate

x and y

And I'd like to concatenate x and y into a 2 column, unknown numbers
of rows

output array.

I'd like to dynamically grow the output array at each iteration.

For example:

$x=1$ $y=5$ on first iteration

$x=2$, $y=6$ on 2nd iteration

I want an output array that looks like the below:

```
1    5
2    6
```

How do i achieve this without knowing the array size??

Tx!

-Elisha

Subject: Re: array concatenation in 2-D

Posted by [Spon](#) on Wed, 09 Apr 2008 06:37:12 GMT

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On Apr 9, 2:19 am, elwood <epolo...@uwsp.edu> wrote:

> Alas, this is a form of concatenation, but it does not produce
> the required results.

> I need to concatenate by COLUMN, not row.

> If I code the concatenation you show, it produces:

> column 1:

> 1 2

> 3 4

> 5 6

>

> Whereas I need it to paste the columns together such that I

> get

> 1 3 5

> 2 4 6

>

> To be specific, each iteration of the loop

> I calculate new values of x and y
> I want to do the following, but using concatenation
> outputarray[0,0]=x1
> outputarray[1,0]=y1
>
> next iteration
> outputarray[0,1]=x2
> outputarray[1,1]=y2
>
> to get a final array where x values are in column 0
> y values are in column 1

You're almost where you want to be :-)

You can use TRANSPOSE your array to get the desired effect. It does make concatenating a little bit more tricky, but with the help of these two tutorials:

http://www.dfanning.com/tips/array_concatenation.html

http://www.dfanning.com/tips/rebin_magic.html

you'll be flying through it before you know it!

Alternatively you can let your concatenation happen row-by-row until you're done, and then just transpose at the end, if that's simpler.

Good luck,

Chris

Subject: Re: array concatenation in 2-D

Posted by [Jean H.](#) on Wed, 09 Apr 2008 15:44:29 GMT

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elwood wrote:

> On Apr 4, 2:31 pm, Jean H <jghas...@DELTHIS.ucalgary.ANDTHIS.ca>

> wrote:

>> elwood wrote:

>>> I have a loop which calculates two variables x[i] and y[i]

>>> At each iteration of the loop I calculate

>>> x and y

>>> And I'd like to concatenate x and y into a 2 column, unknown numbers

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```

your initial and second post are opposite! ... be sure to understand the row/column system used in IDL (see http://idlastro.gsfc.nasa.gov/idl_html_help/Columns_Rows_and_Array_Majority.html)

Anyways, you can do concatenation, according to your 2nd post like that:

```

a = [[1,3],[2,4]]
a= [a,transpose([5,6])]
IDL> print,a
      1      3      5
      2      4      6

```

Jean