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 interation.

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
> outputarry[0,0]=x1
> outputarry[1,0]=y1
>
> next iteration
> outputarry[0,1]=x2
> outputarry[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:
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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
