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Subject: Replicate array over columns - using transpose?  
Posted by [Robin Wilson](#) on Thu, 22 Mar 2012 10:11:54 GMT  
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Hi all,

I've got an array, a, as follows:

```
IDL> print, a
    10.0000    35.0000    60.0000    85.0000    110.000
```

I want to replicate this across 4 columns to produce an array like the following:

```
10 10 10 10
35 35 35 35
60 60 60 60
85 85 85 85
110 110 110 110
```

I'm using the CMREPLICATE routine to do this, and get the following:

```
IDL> print, CMREPLICATE(a, 4)
    10.0000    35.0000    60.0000    85.0000    110.000
    10.0000    35.0000    60.0000    85.0000    110.000
    10.0000    35.0000    60.0000    85.0000    110.000
    10.0000    35.0000    60.0000    85.0000    110.000
```

However, I want to replicate it in the columns as in the example above. As far as I can see it there are two ways to deal with this: transpose the array after I've done it (computationally expensive, as I'll be doing it with far larger arrays in the real program) or transpose it before running CMREPLICATE. However, if I do this I get an extra dimension added:

```
IDL> help, CMREPLICATE(transpose(a), 4)
<Expression>  FLOAT  = Array[1, 5, 4]
```

Is there a way to replicate over the columns without adding this extra dimension? I'm sure I'm missing something simple here.

Cheers,

Robin

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