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Subject: Re: REPLICATE with arrays  
Posted by [davidf](#) on Fri, 11 Feb 2000 08:00:00 GMT  
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Vince Hradil (hradilv@yahoo.com) writes:

> I often have the need to replicate an array, but IDL's replicate only  
> works with scalars. Does anyone have any tips on the most efficient,  
> simplest, clearest (you choose) way to do this?

I am such a sucker for these kinds of articles. :-)

I don't know about "efficient, simplest, clearest", but here is something that works for the three cases (1D, 2D, and 3D arrays) I tried it on. I leave it to your imagination to figure out the rest of the cases. It seemed like details to me. :-)

Cheers,

David

\*\*\*\*\*

```
FUNCTION Replicate_Array, array, number
```

```
    ; Obtain information about the array.
```

```
    ndims = Size(array, /N_Dimensions)
    dims = Size(array, /Dimensions)
    type = Size(array, /TName)
```

```
    ; Initialize some variables.
```

```
    snumber = StrTrim(number,2)
    newArray = 0
```

```
    ; Create the new array and populate it with the old array.
```

```
CASE ndims OF
```

```
1: BEGIN
```

```
    command = 'newArray = Make_Array(' + StrTrim(dims[0],2) + ', ' + $
        + snumber + ', ' + type + '=1)'
```

```
    ok = Execute(command)
```

```
    FOR j=0,number-1 DO newArray[* ,j] = array
```

```
    END
```

```
2: BEGIN
```

```
    command = 'newArray = Make_Array(' + StrTrim(dims[0],2) + ', ' + $
        + StrTrim(dims[1],2) + ', ' + snumber + ', ' + type + '=1)'
```

```
ok = Execute(command)
FOR j=0,number-1 DO newArray[* ,*,j] = array
END
3: BEGIN
command = 'newArray = Make_Array(' + StrTrim(dims[0],2) + ',' + $
  StrTrim(dims[1],2) + ',' + StrTrim(dims[2],2) + ',' + snumber $
  + ',' + type + '=1)'
ok = Execute(command)
FOR j=0,number-1 DO newArray[* ,*,*,j] = array
END
ELSE: Print, 'Sorry, figure this out yourself. :-)'
ENDCASE

RETURN, newArray
END
*****
```

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