
Subject: Re: *replicate* but with arrays

Posted by [Pavel A. Romashkin](#) on Mon, 10 Sep 2001 22:15:57 GMT

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Try

```
a = rebin(b, 3, 50)
```

Cheers,

Pavel

aqueous wrote:

>

> If I have array a[3,50] and array b[3], how do I fill all rows of a

> with the row vector b? For example, what I want to do is

>

> a = intarr(3,50)

> b = [6,5,4]

> a[0:2,*] = b ;or a[*,*] = b

>

> a should now look like

>

> [6,5,4]

> [6,5,4]

> [6,5,4]

> [6,5,4]

Subject: Re: *replicate* but with arrays

Posted by [Mark Hadfield](#) on Mon, 10 Sep 2001 22:15:59 GMT

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Check out JD Smith's Dimension Juggling Tutorial & Array Concatenation Tutorial, posted to this group in April or May this year. The following Google links *might* take you there

http://groups.google.com/groups?as_umsgid=3AC7B345.1648F0A9%40astro.cornell.edu

<http://groups.google.com/groups?q=Array+Concatenation+Tutorial&hl=en&group=comp.lang.idl-pvwave&safe=off&rnum=1&selm=3AEF1FA7.4ECBFB6%40astro.cornell.edu>

But to cut a long story short, my preferred way to do what you want is

```
b = [6,5,4]
```

```
a = rebin(b,n_elements(b),50)
```

Here rebin is trying to expand the second dimension of b to 50. Since b doesn't have a second dimension it creates one with size 1, then fills it by

replication.

Mark Hadfield
m.hadfield@niwa.cri.nz <http://katipo.niwa.cri.nz/~hadfield>
National Institute for Water and Atmospheric Research

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Posted from clam.niwa.cri.nz [202.36.29.1]
via Mailgate.ORG Server - <http://www.Mailgate.ORG>

Subject: Re: *replicate* but with arrays
Posted by [David Fanning](#) on Tue, 11 Sep 2001 00:38:27 GMT
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Mark Hadfield (m.hadfield@niwa.cri.nz) writes:

- > Check out JD Smith's Dimension Juggling Tutorial & Array Concatenation
- > Tutorial, posted to this group in April or May this year. The following
- > Google links *might* take you there
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- >
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- > u

J.D. has given me permission to publish these tutorials on my web page. This article jogged my memory that I hadn't done so yet. But here they are now:

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

Cheers,

David

--

David W. Fanning, Ph.D.
Fanning Software Consulting
Phone: 970-221-0438, E-mail: david@dfanning.com
Coyote's Guide to IDL Programming: <http://www.dfanning.com/>
Toll-Free IDL Book Orders: 1-888-461-0155

Subject: Re: *replicate* but with arrays

Posted by [Craig Markwardt](#) on Tue, 11 Sep 2001 00:41:38 GMT

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aqueous0123@yahoo.com (aqueous) writes:

```
> If I have array a[3,50] and array b[3], how do I fill all rows of a
> with the row vector b? For example, what I want to do is
>
> a = intarr(3,50)
> b = [6,5,4]
> a[0:2,*] = b ;or a[*,*] = b
>
> a should now look like
>
> [6,5,4]
> [6,5,4]
> [6,5,4]
> [6,5,4]
> ...
>
> I thought I could use replicate or makearray, like..
> a = REPLICATE(b, n_elements(b), 50)
> or
> a = MAKE_ARRAY(n_elements(b), 50, /INTEGER, VALUE= b)
```

Mark and Pavel's responses are fine and dandy. I use REBIN all the time to do exactly the kind of thing you are after. However, if you just want a REPLICATE work-alike, then I might suggest the function CMREPLICATE, available from my web page.

It is standalone and works just like you'd expect, even simpler actually since you don't specify n_elements(b):

```
IDL> b = [6,5,4]
IDL> a = cmreplicate(b, 50)
IDL> help, a
A          INT      = Array[3, 50]
```

For numeric arrays it uses rebin so it is just as efficient as using REBIN yourself. However it also works generally on structure arrays and strings, which are processed differently.

Good luck,
Craig

<http://cow.physics.wisc.edu/~craigm/idl/idl.html> (under Arrays)

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Craig B. Markwardt, Ph.D. EMAIL: craigmnet@cow.physics.wisc.edu
Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response
