
Subject: Array-making speed

Posted by [btt](#) on Fri, 29 Dec 2000 18:55:39 GMT

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Hello,

A (long) while back there was a discussion regarding which, of a number of methods, was most efficient at making a blank array. I couldn't locate the archive at DejaNews, so I tried to figure out which one to use by trial and error.

Below is the code I used to make an 640x480 zero-valued array with MAKE_ARRAY, INTARR and REPLICATE. I tried each in a loop, with the loop incrementing to 1, 10, 100 and finally 1000 times. The results are shown below; note how INTARR looks non-linear when the in the 100 count loop (I expected something between 0.16 and 0.17) . Loopy, huh? Just gee-whiz enough that I thought I'd share it.

```
IDL> arraymaking
```

```
** Structure !VERSION, 7 tags, length=44:
```

```
ARCH      STRING  'PowerMac'
OS         STRING  'MacOS'
OS_FAMILY  STRING  'MacOS'
RELEASE    STRING  '5.4'
BUILD_DATE  STRING  'Nov 1 2000'
MEMORY_BITS INT      32
FILE_OFFSET_BITS
            INT      = 32
```

```
MakeArray x 1  0.0022699833
```

```
IntArr x 1  0.0016069412
```

```
Replicate x 1  0.0025990009
```

```
MakeArray x 10  0.023674965
```

```
IntArr x 10  0.016358972
```

```
Replicate x 10  0.023769975
```

```
MakeArray x 100  0.23571503
```

```
IntArr x 100  0.30677903
```

```
Replicate x 100  0.25714195
```

```
MakeArray x 1000  2.3778840
```

```
IntArr x 1000  1.7446461
```

```
Replicate x 1000  2.3371190
```

```
;----- START
```

```
PRO ArrayMaking
```

```

nx = 640
ny = 480

n = [1,10,100,1000]

Help, !Version, /str

For j = 0, 3 Do Begin

Start = SYSTIME(/Sec)
For i = 0, n[j]-1 Do D = MAKE_ARRAY(nx,ny,Value = 0)
Print, 'MakeArray x ',StrTrim(n[j],2), SYSTIME(/Sec)-Start

Start = SYSTIME(/Sec)
For i = 0, n[j]-1 Do D = IntArr(nx,ny)
Print, 'IntArr x ',StrTrim(n[j],2), SYSTIME(/Sec)-Start

Start = SYSTIME(/Sec)
For i = 0, n[j]-1 Do D = Replicate(0,nx,ny)
Print, 'Replicate x ',StrTrim(n[j],2), SYSTIME(/Sec)-Start

Print, ''
EndFor ;j loop

END
;-----END

```

Ben

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