
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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