
Subject: Re: Fast matrix filling in IDL

Posted by [David Foster](#) on Mon, 14 Dec 1998 08:00:00 GMT

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Phillip & Suzanne David wrote:

>

> David Fanning wrote:

>>

>> Stein Vidar Hagfors Haugan (steinhh@ulrik.uio.no) writes:

>>>

>>> A slight modification of David's program, and adding

>>> my favourite speedup method:

>>>

>>> time = systime(1)

>>> array = rebin(reform(v,m,1,/overwrite),m,n,/sample)

>>> print, 'Time for Rebin Operations: ', systime(1) - time

>>>

>>> On { alpha OSF unix 5.2 Oct 30 1998}, this gives:

>>>

>>> Time for Loop: 0.27343702

>>> Time for Matrix Operations: 0.093750000

>>> Time for Rebin Operations: 0.067382932

>>>

>>> Note that the relative speeds can vary quite a lot on

>>> different architectures.

>>

>> I guess. Here is what I get with Stein Vidar's modifications

>> on my Windows NT machine:

>>

>> IDL> Print, !Version

>> { x86 Win32 Windows 5.2 Oct 30 1998}

>> IDL> test

>> Time for Loop: 0.10000002

>> Time for Matrix Operations: 0.019999981

>> Time for Rebin Operations: 0.039999962

>>

>> The Rebin operations are twice as slow as the matrix operations.

>> Hummm. Why!?

>

> Here's another result from IDL 5.0.2 on the Mac:

> Time for Loop: 0.30000007

> Time for Matrix Operations: 0.13333333

> Time for Rebin Operations: 0.50000000

>

> Phillip

Hopefully everyone is running this a few times and noting when the times have become "stable". Here are three sequential runs

on a Sun Sparc 2 (IDL 5.1):

IDL> test

Time for Loop: 2.7740721

Time for Matrix Operations: 5.2337180 ; OUT OF WHACK!

Time for Rebin Operations: 0.16969705

IDL> test

Time for Loop: 2.6756930

Time for Matrix Operations: 0.27333605

Time for Rebin Operations: 0.16920698

IDL> test

Time for Loop: 2.7509290

Time for Matrix Operations: 0.27153599

Time for Rebin Operations: 0.16843796

Dave

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