Subject: Re: Fast matrix filling in IDL
Posted by Kevin Ivory on Mon, 14 Dec 1998 08:00:00 GMT
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> David F. wrote:
>
>> You must have some hot machine, Kevin. Add more zeros!
>>
>> Print, systime(1) - time, Format='(F20.18)'

Stein Vidar Hagfors Haugan wrote:
>
> ..or maybe he's just got a very "slow" clock (coarse
> granularity). Try repeating the operations a few (10)
> times in one-line loops.

I just sent in a bug report this morning. As usual, it was rejected
by RSI and forwarded to our local distributor, so it might take a few
weeks before I hear about this again.

At least on my machine & configuration (SuSE 5.3 + glibc extentions),
systime() only returns full seconds. The output of the IDL time test
is real fun, so I'll include it here:

```
IDL> print,!version
{ x86 linux unix 5.2 Oct 30 1998}
IDL> time_test
% Compiled module: TIME_TEST.
TIME_TEST is obsolete.
Use the newer, more accurate, TIME_TEST2, contained in this file.
|TIME_TEST performance for IDL 5.2:
|      OS_FAMILY=unix, OS=linux, ARCH=x86
      1      0.00000 Empty For loop, 1 million times
      2      1.00000 Call empty procedure (1 param) 100,000 times
      3      0.00000 Add 100,000 integer scalars and store
      4      1.00000 25,000 scalar loops each of 5 ops, 2 =, 1 if)
      5      0.00000 Mult 512 by 512 byte by constant and store, 10 times
      6      0.00000 Shift 512 by 512 byte and store, 10 times
      7      0.00000 Add constant to 512 x 512 byte array and store, 10 times
      8      0.00000 Add two 512 by 512 byte images and store, 10 times
      9      0.00000 Mult 512 by 512 floating by constant and store, 10 times
     10      0.00000 Add constant to 512 x 512 floating and store, 10 times
     11      1.00000 Add two 512 by 512 floating images and store, 10 times
     12      0.00000 Invert a 100 by 100 random matrix
     13      0.00000 Transpose 256 x 256 byte, FOR loops
     14      0.00000 Transpose 256 x 256 byte, row and column ops
     15      1.00000 Transpose 256 x 256 byte, transpose function
     16      0.00000 Log of 100,000 numbers, FOR loop
```

```
      17      1.00000 Log of 100,000 numbers, vector ops
      18      1.00000 Add two 100000 element floating vectors, FOR loop
      19      0.00000 Add two 100000 element floating vectors, vector op
      20      0.00000 65536 point real to complex FFT
      21      0.00000 Smooth 512 by 512 byte array, 5x5 boxcar
      22      0.00000 Smooth 512 by 512 floating array, 5x5 boxcar
% Compiled module: FILEPATH.
      23      0.00000 Write and read 10 512 by 512 byte arrays
      6.00000=Total Time,    9.2245592e-29=Geometric mean,      23 tests.
IDL>
```

Best regards,
Kevin Ivory
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