Subject: Re: IDL time test with a PowerMac G4
Posted by Mark Hadfield on Fri, 08 Oct 1999 07:00:00 GMT
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Joseph B. Gurman <gurman@gsfc.nasa.gov> wrote in message
news:gurman-0710991007180001@barkochba.nascom.nasa.gov...
> ...
> Since the G4's beat Pentiums runnjing Windoze hands-down in IDL
> ...

That's "Windows". But I digress. Pavel's original post quoted the following
for time_test2

> IDL> time_test2
> |TIME_TEST2 performance for IDL 5.2:
> | OS_FAMILY=MacOS, OS=MacOS, ARCH=PowerMac
> | Mon Oct 4 15:36:29 1999
> 1 0.400000 Empty For loop, 2000000 times
> 2 0.166667 Call empty procedure (1 param) 100,000 times
> 3 0.0666667 Add 100,000 integer scalars and store
> 4 0.0833334 25,000 scalar loops each of 5 ops, 2 =, 1 if)
> 5 0.0166667 Mult 512 by 512 byte by constant and store, 10 times
> 6 0.0500000 Shift 512 by 512 byte and store, 100 times
> 7 0.0833334 Add constant to 512 x 512 byte array and store, 50
times
> 8 0.116667 Add two 512 by 512 byte images and store, 30 times
> 9 0.266667 Mult 512 by 512 floating by constant and store, 30
times
> 10 0.133333 Add constant to 512 x 512 floating and store, 40
times
> 11 0.666667 Add two 512 by 512 floating images and store, 30
times
> 12 0.0500001 Generate 225000 random numbers
> 13 0.0666666 Invert a 150 by 150 random matrix
> 14 0.0166667 LU Decomposition of a 150 by 150 random matrix
> 15 0.116667 Transpose 256 x 256 byte, FOR loops
> 16 0.116667 Transpose 256 x 256 byte, row and column ops x 10
> 17 0.0166668 Transpose 256 x 256 byte, TRANSPOSE function x 10
> 18 0.200000 Log of 100,000 numbers, FOR loop
> 19 0.0333333 Log of 100,000 numbers, vector ops
> 20 0.150000 131072 point forward plus inverse FFT
> 21 0.183333 Smooth 512 by 512 byte array, 5x5 boxcar, 10 times
> 22 0.0166667 Smooth 512 by 512 floating array, 5x5 boxcar, 2
times
> 23 1.71667 Write and read 512 by 512 byte array x 20
> 4.73333=Total Time, 0.096772401=Geometric mean, 23 tests.

Here's the output from my PC (Compaq Deskpro 400 MHz Pentium II, 256 MB RAM,

Windows NT 4.0)

```
|TIME_TEST2 performance for IDL 5.2:
|       OS_FAMILY=Windows, OS=Win32, ARCH=x86
| Fri Oct 08 10:17:32 1999
      1     0.140000 Empty For loop,     2000000 times
      2     0.131000 Call empty procedure (1 param) 100,000 times
      3     0.100000 Add 100,000 integer scalars and store
      4    0.0900000 25,000 scalar loops each of 5 ops, 2 =, 1 if)
      5    0.0500001 Mult 512 by 512 byte by constant and store, 10 times
      6     0.240000 Shift 512 by 512 byte and store, 100 times
      7     0.171000 Add constant to 512 x 512 byte array and store, 50
times
      8     0.180000 Add two 512 by 512 byte images and store, 30 times
      9     0.381000 Mult 512 by 512 floating by constant and store, 30
times
     10     0.300000 Add constant to 512 x 512 floating and store, 40 times
     11     0.611000 Add two 512 by 512 floating images and store, 30 times
     12    0.0300000 Generate 225000 random numbers
     13    0.0900000 Invert a 150 by 150 random matrix
     14    0.0200000 LU Decomposition of a 150 by 150 random matrix
     15     0.100000 Transpose 256 x 256 byte, FOR loops
     16     0.130000 Transpose 256 x 256 byte, row and column ops x 10
     17    0.0599999 Transpose 256 x 256 byte, TRANSPOSE function x 10
     18     0.190000 Log of 100,000 numbers, FOR loop
     19    0.0300000 Log of 100,000 numbers, vector ops
     20     0.391000       131072 point forward plus inverse FFT
     21     0.340000 Smooth 512 by 512 byte array, 5x5 boxcar, 10 times
     22    0.0400000 Smooth 512 by 512 floating array, 5x5 boxcar, 2 times
     23     0.120000 Write and read 512 by 512 byte array x 20
     3.93500=Total Time,       0.11991918=Geometric mean,      23 tests.
```

The PC is faster overall, though some of the floating-point intensive operations are slower (e.g. 9, 20). Hardly "hands down".

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