Subject: time test MacOC
Posted by pford on Sun, 15 Mar 1998 08:00:00 GMT
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These are the time test results for a PPC upgraded with a PowerLogix board, G# processor 308 MHz, 1 Mbyte backside cache 1:1, 44MHz system bus, MacOS 8.1 with many extensions. I could probably tweak the speed somewhat by using only one display card and a better display card and SCSI 3 card and drives. I am using inexpensive SCSI 1 drives.

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IDL> TIME_TEST
TIME_TEST is obsolete.
Use the newer, more accurate, TIME_TEST2, contained in this file.
|TIME_TEST performance for IDL 5.0.3:
| OS_FAMILY=MacOS, OS=MacOS, ARCH=PowerMac
  1 0.150000 Empty For loop, 1 million times
  2 0.183333 Call empty procedure (1 param) 100,000 times
  3 0.100000 Add 100,000 integer scalars and store
  4 0.100000 25,000 scalar loops each of 5 ops, 2 =, 1 if)
  5 0.0833334 Mult 512 by 512 byte by constant and store, 10 times
  6 0.0500000 Shift 512 by 512 byte and store, 10 times
  7 0.0666666 Add constant to 512 x 512 byte array and store, 10 times
  8 0.0833333 Add two 512 by 512 byte images and store, 10 times
  9 0.433333 Mult 512 by 512 floating by constant and store, 10 times
 10 0.400000 Add constant to 512 x 512 floating and store, 10 times
 11 0.533333 Add two 512 by 512 floating images and store, 10 times
 12 0.0833333 Invert a 100 by 100 random matrix
 13 0.116667 Transpose 256 x 256 byte, FOR loops
 14 0.0166667 Transpose 256 x 256 byte, row and column ops
 15 0.0166667 Transpose 256 x 256 byte, transpose function
 16 0.283333 Log of 100,000 numbers, FOR loop
 17 0.0666666 Log of 100,000 numbers, vector ops
 18 0.250000 Add two 100000 element floating vectors, FOR loop
 19 0.0166667 Add two 100000 element floating vectors, vector op
 20 0.116667 65536 point real to complex FFT
 21 0.0666667 Smooth 512 by 512 byte array, 5x5 boxcar
 22 0.0500001 Smooth 512 by 512 floating array, 5x5 boxcar
 23 0.166667 Write and read 10 512 by 512 byte arrays
 3.43333=Total Time, 0.099091732=Geometric mean, 23 tests.
IDL> TIME_TEST2
|TIME_TEST2 performance for IDL 5.0.3:
| OS_FAMILY=MacOS, OS=MacOS, ARCH=PowerMac
| Sat Mar 14 18:07:58 1998
  1 0.333333 Empty For loop, 2000000 times
  2 0.200000 Call empty procedure (1 param) 100,000 times
  3 0.116667 Add 100,000 integer scalars and store
  4 0.133333 25,000 scalar loops each of 5 ops, 2 =, 1 if)

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       5    0.0666667 Mult 512 by 512 byte by constant and store, 10 times
       6     0.466667 Shift 512 by 512 byte and store, 100 times
       7     0.283333 Add constant to 512 x 512 byte array and store, 50 times
       8     0.233333 Add two 512 by 512 byte images and store, 30 times
       9      1.16667 Mult 512 by 512 floating by constant and store, 30 times
      10      1.21667 Add constant to 512 x 512 floating and store, 40 times
      11      2.13333 Add two 512 by 512 floating images and store, 30 times
      12    0.0833333 Generate 225000 random numbers
      13     0.166667 Invert a 150 by 150 random matrix
      14    0.0833334 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    0.0666667 Transpose 256 x 256 byte, TRANSPOSE function x 10
      18     0.250000 Log of 100,000 numbers, FOR loop
      19    0.0500000 Log of 100,000 numbers, vector ops
      20     0.650000       131072 point forward plus inverse FFT
      21     0.316667 Smooth 512 by 512 byte array, 5x5 boxcar, 10 times
      22    0.0833334 Smooth 512 by 512 floating array, 5x5 boxcar, 2 times
      23      6.20000 Write and read 512 by 512 byte array x 20
     14.5333=Total Time,       0.24510466=Geometric mean,      23 tests.
IDL> TIME_TEST3
|TIME_TEST3 performance for IDL 5.0.3:
|       OS_FAMILY=MacOS, OS=MacOS, ARCH=PowerMac
|  Sat Mar 14 18:08:30 1998
       1     0.333333 Empty For loop, 2000000 times
       2     0.183333 Call empty procedure (1 param) 100000 times
       3     0.216667 Add 200000 integer scalars and store
       4     0.216667 50000 scalar loops each of 5 ops, 2 =, 1 if)
       5     0.183333 Mult 512 by 512 byte by constant and store, 30 times
       6      1.70000 Shift 512 by 512 byte and store, 300 times
       7     0.583333 Add constant to 512x512 byte array, 100 times
       8     0.633333 Add two 512 by 512 byte arrays and store, 80 times
       9      1.15000 Mult 512 by 512 floating by constant, 30 times
      10      2.55000 Shift 512 x 512 array, 60 times
      11      2.05000 Add two 512 by 512 floating images, 40 times
      12     0.316667 Generate 1000000 random numbers
      13     0.333333 Invert a 192^2 random matrix
      14    0.0666667 LU Decomposition of a 192^2 random matrix
      15     0.266667 Transpose 384^2 byte, FOR loops
      16     0.266667 Transpose 384^2 byte, row and column ops x 10
      17      1.03333 Transpose 384^2 byte, TRANSPOSE function x 100
      18     0.250000 Log of 100000 numbers, FOR loop
      19     0.383333 Log of 100000 numbers, vector ops 10 times
      20     0.500000 131072 point forward plus inverse FFT
      21     0.300000 Smooth 512 by 512 byte array, 5x5 boxcar, 10 times
      22     0.250000 Smooth 512 by 512 floating array, 5x5 boxcar, 5 times
      23      12.2667 Write and read 512 by 512 byte array x 40
     26.0333=Total Time,       0.47938677=Geometric mean,      23 tests.
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Subject: Why not join the Speed Survey!!! Re: time test MacOC
Posted by J.D. Smith on Mon, 16 Mar 1998 08:00:00 GMT
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Hey Time Testers:

Why not fill out this simple form for results of time_test2 and graphics_times2, mail it to me, and join the IDL Speed survey. I should have the results compiled in a few weeks, and then you can see how you stack up....

Make : (Make of your computer)
Processor/Speed : (Processor and speed + number of processors if >1)
Memory : (Amount of RAM in Mb)
OS : (Operating System, including version)
IDL Version : (Version of IDL used)
Video Hardware : (Video Hardware, if Known)
tt2 -- mean/geom : (Mean (= total/23) and geometric mean of time_test2)
gt2 : (Mean (= total/4) and geometric mean of graphics_times2)
tt2 -- test 23 : (Result of tt2 test 23 (Disk I/O -- see below))

A few notes: Use time_test2 on the latest version of IDL you have. Make sure to cd to a local partition (i.e. not a network partition, /tmp usually is safe on unix-like systems) before running the test, or your disk i/o results will be very skewed. MAKE SURE TO INCLUDE BOTH ARITHMETIC MEAN (=TOTAL/N) AND GEOMETRIC MEAN FOR gt2 AND tt2.

JD
