



OMPM2001 Result

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SGI

SGI Altix XE 270 (Intel Xeon X5570, 2.93 GHz, DDR3-1333)

SPECompMpeak2001 = --

SPECompMbase2001 = 43670

SPEC license #HPG0014 Tested by: SGI Test site: SGI Test date: Apr-2009 Hardware Avail: Mar-2009 Software Avail: Jun-2009

Benchmark	Reference Time	Base Runtime	Base Ratio	Peak Runtime	Peak Ratio
310.wupwise_m	6000	82.9	72395		
312.swim_m	6000	157	38230		
314.mgrid_m	7300	209	34907		
316.applu_m	4000	139	28696		
318.galgel_m	5100	121	42081		
320.quake_m	2600	57.3	45405		
324.apsi_m	3400	92.4	36785		
326.gafort_m	8700	163	53416		
328.fma3d_m	4600	150	30671		
330.art_m	6400	54.1	118279		
332.ampm_m	7000	240	29177		

Hardware

CPU: Intel Xeon X5570
 CPU MHz: 2934
 FPU: Integrated
 CPU(s) enabled: 8 cores, 2 chips, 4 cores/chip (HT on)
 CPU(s) orderable: 1-2 chips
 Primary Cache: 32 KB I + 32 KB D on chip per core
 Secondary Cache: 256 KB I+D on chip per core
 L3 Cache: 8 MB I+D on chip per chip
 Other Cache: None
 Memory: 24 GB (6*4GB DDR3-1333 CL9 RDIMMs)
 Disk Subsystem: 3 TB RAID 0
 6 x 500 GB SATA (Seagate Barracuda 7200 rpm)
 Other Hardware: None

Software

OpenMP Threads: 16
 Parallel: OpenMP
 Operating System: SUSE Linux Enterprise Server 10 (x86_64) SP2
 Kernel 2.6.16.60-0.30-smp
 Compiler: Intel C/C++ Compiler 11.0.083
 Intel Fortran Compiler 11.0.083
 File System: xfs
 System State: Multi-user, run level 3

Notes/Tuning Information

Portability Flags:

318.galgel_m: -FI -l32

Extra Flags:

330.art_m: -DINTS_PER_CACHELINE=16 -DDBLS_PER_CACHELINE=8

Baseline optimization flags:

COPTIMIZE = -O3 -xSSE4.2 -ipo -openmp -ansi_alias (ONESTEP)

FOPTIMIZE = -O3 -xSSE4.2 -ipo -openmp (ONESTEP)

Software Environment:

```
setenv KMP_AFFINITY disabled
setenv KMP_STACKSIZE 31M
setenv KMP_SCHEDULE static,balanced
setenv KMP_LIBRARY throughput
setenv KMP_BLOCKTIME infinite
setenv OMP_DYNAMIC FALSE
setenv OMP_NUM_THREADS 16
limit stacksize unlimited
```

BIOS settings:

AMI BIOS version 8.15
 Adjacent cacheline prefetch enabled
 Hyper-Threading Technology enabled (default)



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Notes/Tuning Information (Continued)

```
Intel Turbo Boost Technology enabled (default)
Intel Turbo Boost Technology activated in the OS via
/etc/init.d/acpid start
/etc/init.d/powersaved start
powersave -f
```

For a description of SGI's compiler flags, portability flags, and system parameters used to generate this result, please refer to the SGI-20090327-Linux-Intel11.0-intel64.html file in the flags directory.