



OMPM2001 Result

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SGI

SGI Altix 3000 (1500MHz, Itanium 2)

SPECompMpeak2001 = 25817

SPECompMbase2001 = 24358

SPEC license #HPG0014 | Tested by: SGI | Test site: SGI | Test date: Jul-2003 | Hardware Avail: Jul-2003 | Software Avail: Jul-2003

Benchmark	Reference Time	Base Runtime	Base Ratio	Peak Runtime	Peak Ratio	
310.wupwise_m	6000	132	45326	132	45326	
312.swim_m	6000	85.7	70029	85.7	70029	
314.mgrid_m	7300	242	30149	242	30149	
316.applu_m	4000	342	11697	342	11697	
318.galgel_m	5100	456	11175	456	11175	
320.quake_m	2600	139	18702	109	23748	
324.apsi_m	3400	137	24771	122	27957	
326.gafort_m	8700	453	19188	394	22109	
328.fma3d_m	4600	262	17563	228	20164	
330.art_m	6400	80.6	79439	80.6	79439	
332.ammp_m	7000	606	11544	606	11544	

Hardware

CPU: Intel Itanium 2
 CPU MHz: 1500
 FPU: Integrated
 CPU(s) enabled: 32
 CPU(s) orderable: 4-64
 Primary Cache: 16KBI + 16KBD (on chip) per CPU
 Secondary Cache: 256KB (on chip) per CPU
 L3 Cache: 6.0MB (on chip) per CPU
 Other Cache: N/A
 Memory: 64 GB (16*512MB DIMMS per 4cpu module)
 Disk Subsystem: 1 x 36 GB SCSI (Seagate Cheetah 15k rpm)
 Other Hardware: None

Software

OpenMP Threads: 32
 Parallel: OpenMP
 Operating System: SGI ProPack(TM) v2.2
 Compiler: Intel(R) Fortran Compiler for Linux 7.1 (Build 20030701)
 Intel(R) C++ Compiler for Linux 7.1 (Build 20030701)
 File System: xfs
 System State: Single-user

Notes/Tuning Information

Baseline optimization flags:

C programs: -openmp -O3 -ipo -ansi -ansi_alias (ONESTEP)
 Fortran programs: -openmp -O3 -ipo -stack_temps (ONESTEP)

Portability Flags:

318.galgel_m: -FI -132

Extra Flags:

330.art_m: -DINTS_PER_CACHELINE=32 -DDBLS_PER_CACHELINE=16

Baseline user environment:

OMP_NUM_THREADS=32
 limit stacksize 64000
 KMP_STACKSIZE 31M
 KMP_LIBRARY TURNAROUND

Peak optimization flags:

310.wupwise_m: basepeak=true
 312.swim_m: basepeak=true
 314.mgrid_m: basepeak=true
 316.applu_m: basepeak=true
 318.galgel_m: basepeak=true
 320.quake_m: -openmp -O3 -ipo -ansi -ansi_alias (ONESTEP)



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Notes/Tuning Information (Continued)

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324.apsi_m: -openmp -O3 -ipo -stack_temps (ONESTEP)
326.gafort_m: -openmp -O3 -ipo -stack_temps (ONESTEP)
328.fma3d_m: -openmp -O3 -ipo -stack_temps (ONESTEP)
330.art_m: basepeak=true
332.amp_m: basepeak=true
```

Alternate sources:

ISO C and C++ compatible sources

Available as SPEC OMPM2001 source: ompm2001-isoc-20020619.tar.gz

Used for base: 320.equake_m, 330.art_m, 332.amp_m

and peak: 330.art_m, 332.amp_m

Peak sources:

SPEC OMPL2001 source for 64bit systems modified for SPEC OMPM2001.

Available as SPEC OMPM2001 Source: ompm2001-srcl64bit-20020807.tar.gz.

Used for 320.equake_m, 324.apsi_m, 326.gafort_m, and 328.fma3d_m.

Processes were bound to CPUs using dplace.