



OMPL2001 Result

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Supermicro Corporation
Supermicro H8QM8

SPECompLpeak2001 = 173588

SPECompLbase2001 = 172750

SPEC license #HPG0017 | Tested by: Advanced Micro Devices | Test site: Austin TX | Test date: Oct-2008 | Hardware Avail: Nov-2008 | Software Avail: Nov-2007

Benchmark	Reference Time	Base Runtime	Base Ratio	Peak Runtime	Peak Ratio
311.wupwise_l	9200	642	229251	643	228761
313.swim_l	12500	1429	139947	1442	138701
315.mgrid_l	13500	1042	207310	1046	206564
317.applu_l	13500	3077	70203	3100	69688
321.quake_l	13000	1664	124979	1528	136119
325.apsi_l	10500	1275	131732	1283	130909
327.gafort_l	11000	922	190975	922	190955
329.fma3d_l	23500	2459	152919	2486	151224
331.art_l	25000	655	610310	657	608919

Hardware

CPU: Quad-Core AMD Opteron(tm) Processor 8384
 CPU MHz: 2700
 FPU: Integrated
 CPU(s) enabled: 16 cores, 4 chips, 4 cores/chip
 CPU(s) orderable: 1-4
 Primary Cache: 64 KB I + 64 KB D on chip per core
 Secondary Cache: 512 KB I+D on chip per core
 L3 Cache: 6 MB I+D on chip per chip
 Other Cache: None
 Memory: 32GB (16x2GB, PC2-6400, CL5 dual-rank)
 Disk Subsystem: 160GB 7200 RPM SATA
 Other Hardware: None

Software

OpenMP Threads: 16
 Parallel: OpenMP
 Operating System: SUSE Linux Enterprise Server 10 (x86_64) SP1 2.6.16.46-0.12-smp
 Compiler: PathScale Compiler Suite ver. 3.1
 File System: Linux/Ext3
 System State: Multi-User

Notes/Tuning Information

Extra art base and peak flags

331.art_l (extra): -DINTS_PER_CACHELINE=16 -DDBLS_PER_CACHELINE=8

Alternate Sources:

315.mgrid_l: intel

Base tuning:

C : pathcc -gnu3 -mp -Ofast -mcpu=barcelona -mcmmodel=medium

Fortran : pathf90 -mp -Ofast -mcpu=barcelona -OPT:early_mp=on -CG:movnti=2500 -mcmmodel=medium

ONESTEP=yes

Peak tuning:

C : -mp -Ofast -mcpu=barcelona -mcmmodel=medium

Fortran: -mp -Ofast -mcpu=barcelona -OPT:early_mp=on -CG:movnti=2500 -mcmmodel=medium

ONESTEP=yes for all peak tests.

Base and Peak User Environment (bash):

export OMP_NUM_THREADS=16

export OMP_DYNAMIC=FALSE

export PSC_OMP_AFFINITY=TRUE

export PSC_OMP_STATIC_FAIR=TRUE

export PSC_OMP_THREAD_SPIN=100000000

ulimit -s unlimited

For flag descriptions, see file AMD-Jul2008-psc31_flags.txt

Default BIOS settings used, except PowerNow! disabled in Bios

Standard Performance Evaluation Corporation

info@spec.org

http://www.spec.org