



OMPL2001 Result

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Tyan Computer Corporation
Tyan Thunder n425QE (S4985E)

SPECompLpeak2001 = --
SPECompLbase2001 = 146796

SPEC license #HPG0017 | Tested by: Advanced Micro Devices | Test site: Austin TX | Test date: May-2008 | Hardware AvailJun-2008 | Software AvailNov-2007

Benchmark	Reference Time	Base Runtime	Base Ratio	Peak Runtime	Peak Ratio
311.wupwise_1	9200	750	196319		
313.swim_1	12500	1734	115338		
315.mgrid_1	13500	1307	165205		
317.applu_1	13500	3250	66453		
321.equake_1	13000	1913	108746		
325.apsi_1	10500	1767	95082		
327.gafort_1	11000	1007	174707		
329.fma3d_1	23500	2791	134728		
331.art_1	25000	764	523219		

Hardware

CPU: Quad-Core AMD Opteron(tm) Processor 8360 SE
CPU MHz: 2500
FPU: Integrated
CPU(s) enabled: 16 cores, 4 chips, 4 cores/chip
CPU(s) orderable: 1,2,3,4
Primary Cache: 64 KB I + 64 KB D on chip per core
Secondary Cache: 512 KB I+D on chip per core
L3 Cache: 2 MB I+D on chip per chip
Other Cache: None
Memory: 32GB (16x2GB, PC2-5300, CL5 dual-rank)
Disk Subsystem: 250GB 7200 RPM SATA
Other Hardware: None

Software

OpenMP Threads: 16
Parallel: OpenMP
Operating System: SLES10 SP1 64bit
Compiler: PathScale Compiler Suite ver. 3.1
File System: Linux/Ext3
System State: Multi-User

Notes/Tuning Information

Extra art Base Flags

331.art_1 (extra): -DINTS_PER_CACHELINE=16 -DDBLS_PER_CACHELINE=8

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

Alternate Sources:

315.mgrid_1: intel

```
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=1000000000
ulimit -s unlimited
```

For flag descriptions, see file AMD-Jun2008-psc31_flags.txt

Default BIOS settings used, except OS set to "linux"