CFP2000 Result

Copyright ©1999-2005, Standard Performance Evaluation Corporation

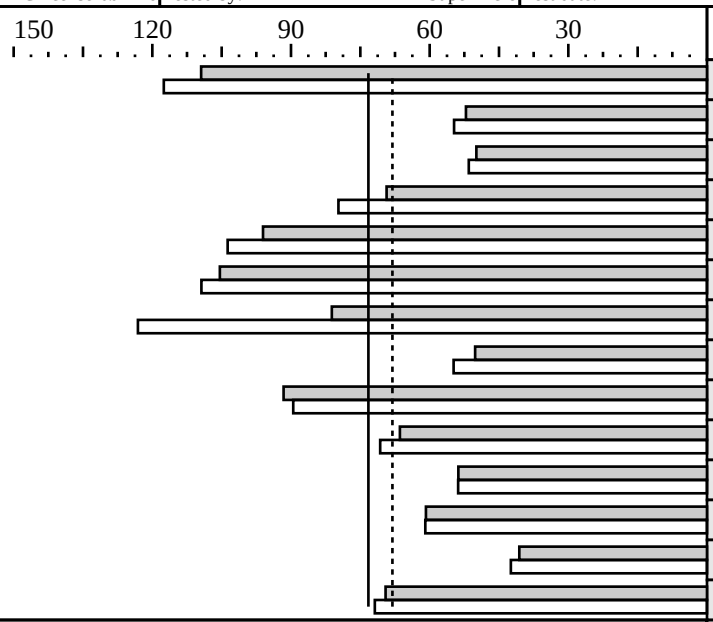
Supermicro

Motherboard H8DM8-2, AMD Opteron(TM) 2218

SPECfp_rate2000 = 73.3

SPECfp_rate_base2000 = 68.1

SPEC license #01176 | Tested by: Supermicro | Test date: Sep-2006 | Hardware Avail: Sep-2006 | Software Avail: Aug-2005



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	4	67.8	109	4	63.2	118
171.swim	4	276	52.1	4	263	54.7
172.mgrid	4	167	49.9	4	162	51.5
173.applu	4	141	69.3	4	122	79.7
177.mesa	4	67.6	96.1	4	62.6	104
178.galgel	4	128	105	4	123	109
179.art	4	149	81.2	4	98.0	123
183.equake	4	120	50.2	4	110	54.8
187.facerec	4	96.2	91.6	4	98.5	89.5
188.ammp	4	154	66.4	4	144	70.7
189.lucas	4	173	53.8	4	172	53.8
191.fma3d	4	160	60.8	4	160	60.9
200.sixtrack	4	126	40.6	4	120	42.4
301.apsi	4	173	69.5	4	168	71.9

Hardware

CPU:	AMD Opteron(TM) 2218 processor
CPU MHz:	2600
FPU:	Integrated
CPU(s) enabled:	4 cores, 2 chips, 2 cores/chip
CPU(s) orderable:	1, 2
Parallel:	No
Primary Cache:	64KBI + 64KBD on chip per core
Secondary Cache:	1024KB (I+D) on chip per core
L3 Cache:	N/A
Other Cache:	N/A
Memory:	4x512MB, DDR2-667 Dual Rank CL4 ECC Reg
Disk Subsystem:	SATA, 400 GB
Other Hardware:	None

Software

Operating System:	SuSE Linux Enterprise Server 9 for AMD64, SP3
Compiler:	PathScale EKOPath(TM) Compiler Suite, Release 2.3
File System:	Linux/reiserfs
System State:	Multi-user, run level 3

Notes/Tuning Information

```
Tested by Supermicro Computer, Inc.

 +FDO: PASS1= -fb_create fbdata  PASS2= -fb_opt fbdata
 +ACML  means -L<acml2.7.0-install-dir>/pathscale64/lib -lacml,
        which causes linking with AMD Core Math Library V2.7.0

 Baseline optimization
   C programs:       -Ofast -WOPT:mem_opnds=on +FDO
   Fortran programs: -Ofast -LNO:fusion=2 -OPT:fast_complex=on +FDO
 Portability Flags:
   178.galgel: -fixedform

Peak Tuning:
 168.wupwise:  -Ofast -LNO:prefetch_ahead=5:prefetch=3
               -OPT:unroll_times_max=8:unroll_size=128:IEEE_NaN_Inf=off:ro=3
               -IPA:linear=on:plimit=50000:callee_limit=5000
               -INLINE:aggressive=on
```

Copyright ©1999-2005, Standard Performance Evaluation Corporation

Notes/Tuning Information (Continued)

```
171.swim:     -Ofast -CG:local_fwd_sched=on -LNO:fusion=2 -m3dnow
172.mgrid:    -Ofast -CG:gcm=off -OPT:IEEE_arith=3:unroll_size=200
              -LNO:fusion=2:fission=1:blocking=off:prefetch_ahead=2
              -WOPT:mem_opnds=on:aggstr=0
173.applu:    -Ofast -CG:local_fwd_sched=on -OPT:ro=3 -TENV:X=3
              -LNO:fusion=2:fission=2:full_unroll_size=10000 +FDO
177.mesa:    -O2 -ipa -OPT:Ofast -fno-math-errno -CG:local_fwd_sched=on -WOPT:mem_opnds=on +FDO
178.galgel:   -Ofast -OPT:fast_complex=on +ACML +FDO
               RM_SOURCES=lapak.f90
179.art:      -O3 -OPT:Ofast -fno-math-errno -mno-sse2 -m32
183.equake:   -Ofast -CG:load_exe=2 -WOPT:mem_opnds=on -m32 +FDO
187.facerec:  -Ofast -LNO:fusion=2
              -OPT:fast_complex=on:IEEE_NaN_Inf=off:unroll_size=0 +FDO
188.ammp:     -O3 -OPT:alias=disjoint:unroll_times_max=8:Ofast:ro=3
              -fno-math-errno -TENV:X=4 +FDO
189.lucas:    -Ofast -OPT:ro=3:fast_nint=off:unroll_size=256 -WOPT:mem_opnds=on +FDO
191.fma3d:    -O2 -ipa -CG:load_exe=1 -OPT:Ofast:IEEE_arith=3:ro=3
              -WOPT:mem_opnds=on:retype_expr=on -IPA:pu_reorder=1 +FDO
200.sixtrack: -O3 -OPT:Ofast:Olimit=6000:early_intrinsics=on
              -fno-math-errno -CG:load_exe=1 +FDO
301.apsi:     -Ofast -CG:load_exe=0 -LNO:prefetch=0:simd=2
Memory populated at location DIMMA 1A, DIMMA 1B for CPU1 and DIMMB 1A, DIMMB 1B for CPU2
Taskset utility used to bind CPU(s) to processes
Tested systems can be used with SC811S-520 case,
To ensure system stability, a 550W (minimum) ATX power supply [ 4-pin (+12V), 8-pin (+12V) and 24-pin are required]
Product description located as of H8DM8: http://www.supermicro.com/Aplus/motherboard/Opteron2000/MCP55/H8DM8-2.cfm
```