CFP2000 Result

Copyright ©1999-2005, Standard Performance Evaluation Corporation

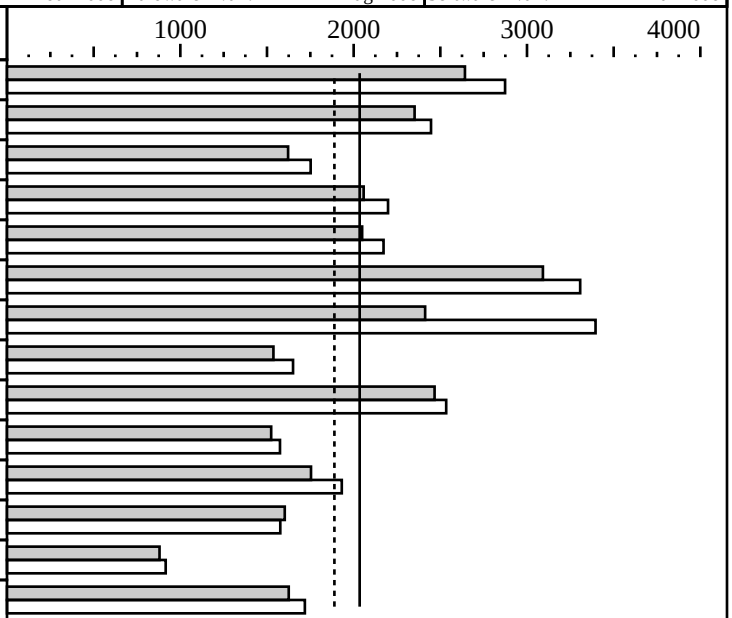
Rackable Systems
C1000-A01-25E26 (AMD Opteron 285)

SPECfp2000 = 2035

SPECfp_base2000 = 1889

SPEC license #: 64 | Tested by: Rackable Systems | Test date: Jul-2006 | Hardware Avail: Aug-2006 | Software Avail: Mar-2006

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	60.6	2642	55.7	2874
171.swim	3100	132	2352	127	2446
172.mgrid	1800	111	1622	103	1752
173.applu	2100	102	2058	95.5	2198
177.mesa	1400	68.3	2049	64.4	2172
178.galgel	2900	93.8	3092	87.7	3307
179.art	2600	108	2412	76.6	3395
183.equake	1300	84.6	1537	78.8	1650
187.facerec	1900	77.0	2467	75.0	2534
188.ammp	2200	144	1524	140	1575
189.lucas	2000	114	1754	104	1931
191.fma3d	2100	131	1602	133	1577
200.sixtrack	1100	125	880	120	916
301.apsi	2600	160	1625	151	1718



Hardware

CPU:	AMD Opteron 285
CPU MHz:	2600
FPU:	Integrated
CPU(s) enabled:	4 cores, 2 chips, 2 cores/chip
CPU(s) orderable:	1,2 chip(s)
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:	4x1024MB, DDR
Disk Subsystem:	1x 250GB SATA
Other Hardware:	None

Software

Operating System:	Red Hat Enterprise Linux 4 Update 2 x86_64
Compiler:	PathScale EKOPath(TM) Compiler Suite, Release 2.4 (for C and Fortran) AMD Core Mathematical Library (ACML), Version 3.1.0
File System:	Linux/ext3
System State:	Multi-user, run level 3

Notes/Tuning Information

```
Portability flags:
   178.galgel: -fixedform

Feedback Optimization:
 +FDO: PASS1=-fb_create fbdata   PASS2=-fb_opt fbdata

AMD Core Math Library
+ACML  means -L<acml-install-dir>/pathscale64/lib -lacml,
        which causes linking with AMD Core Math Library

Baseline Optimization Flags:
   C programs:       -Ofast -WOPT:mem_opnds=on +FDO
   Fortran programs: -Ofast -LNO:fusion=2 -OPT:fast_complex=on +FDO

Peak Tuning Flags:
 168.wupwise:  -Ofast -LNO:prefetch_ahead=5:prefetch=3
               -OPT:unroll_times_max=8:unroll_size=128:IEEE_NaN_Inf=off:ro=3
```

Copyright ©1999-2005, Standard Performance Evaluation Corporation

Notes/Tuning Information (Continued)

```
                -IPA:linear=on:plimit=50000:callee_limit=5000
                -INLINE:aggressive=on
 171.swim:      -Ofast -CG:local_fwd_sched=on -LNO:fusion=2 -m3dnow
 172.mgrid:     -Ofast -CG:gcm=off -OPT:IEEE_a=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:prefetch=3
                +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
 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
Taskset utility used to bind process to CPU(s)
```