



CFP2000 Result

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Hewlett-Packard Company
ProLiant DL585 (AMD Opteron (TM) 852)

SPECfp_rate2000 = 46.3
SPECfp_rate_base2000 = 41.9

SPEC license #: 3 Tested by: Hewlett-Packard Company Test date: Apr-2005 Hardware Avail: May-2005 Software Avail: May-2005

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	2	71.3	52.0	2	54.6	68.0
171.swim	2	130	55.4	2	129	55.9
172.mgrid	2	107	39.2	2	97.7	42.8
173.applu	2	124	39.1	2	106	46.1
177.mesa	2	69.8	46.5	2	63.9	50.8
178.galgel	2	98.2	68.5	2	88.8	75.7
179.art	2	114	53.1	2	83.2	72.5
183.quake	2	82.6	36.5	2	76.6	39.4
187.facerec	2	89.8	49.1	2	87.6	50.3
188.amp	2	152	33.7	2	141	36.2
189.lucas	2	97.3	47.7	2	97.4	47.6
191.fma3d	2	136	35.8	2	130	37.4
200.sixtrack	2	150	17.0	2	131	19.5
301.apsi	2	156	38.7	2	153	39.4

Hardware

CPU: AMD Opteron (TM) 852
CPU MHz: 2600
FPU: Integrated
CPU(s) enabled: 2 cores, 2 chips, 1 core/chip
CPU(s) orderable: 2,4
Parallel: No
Primary Cache: 64KBI + 64KBD on chip
Secondary Cache: 1024KB(I+D) on chip
L3 Cache: N/A
Other Cache: N/A
Memory: 8x2048MB PC3200 CL3.0
Disk Subsystem: 1x36.4GB 15K Ultra320 SCSI
Other Hardware:

Software

Operating System: SuSE Linux Enterprise Server 9 (x86_64) SP 1
SuSE kernel 2.6.5-7.139-smp
Compiler: PathScale EKO Compiler Suite, Release 2.0
AMD Core Math Library 2.5.1
File System: Linux/ext2
System State: Multi-user run level 3

Notes/Tuning Information

+ACML: Linked with AMD Core Math Library
Base tuning for C programs: -Ofast -WOPT:mem_opnds=on +FDO
Base tuning for FORTRAN programs: -Ofast -LNO:fusion=2 -OPT:fast_complex
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
-TENV:X=4 -IPA:space=1000:linear=on:plimit=50000:callee_limit=5000
-INLINE:aggressive=on +FDO
171.swim: -Ofast -LNO:fusion=2
172.mgrid: -O3 -LNO:fusion=2:blocking=off
-OPT:Ofast:unroll_times_max=8:unroll_size=256:ro=3 -CG:gcm=off:cflow=off
173.applu: -Ofast -CG:local_fwd_sched=on
-LNO:fusion=2:fission=2:full_unroll_size=10000:prefetch=3
-OPT:ro=3 -TENV:X=3 -WOPT:val=2
177.mesa: -O2 -ipa -OPT:Ofast -fno-math-errno -CG:local_fwd_sched=on +FDO



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Notes/Tuning Information (Continued)

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178.galgel: -Ofast -OPT:fast_complex -CG:use_movlpd=on +ACML
179.art: -O3 -OPT:ro=2:div_split=on:alias=typed -fno-math-errno -m32 +FDO
183.quake: -Ofast -WOPT:mem_opnds=on -CG:local_fwd_sched=on -m32
187.facerec: -Ofast -OPT:treeheight=on:IEEE_NaN_Inf=off:ro=3 -CG:load_exe=0
-LNO:fusion=2 -IPA:plimit=1800 +FDO
188.ammp: -O3 -OPT:alias=disjoint:unroll_times_max=8:Ofast:ro=3
-fno-math-errno -TENV:X=4 -LNO:prefetch=0 +FDO
189.lucas: -Ofast -CG:local_fwd_sched=on -LNO:fusion=2 +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: -Ofast -CG:load_exe=1 +FDO
301.apsi: -Ofast -TENV:X=4 -LNO:fusion=2:prefetch=0
BIOS Configuration Notes
Node Interleaving is Disabled

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