



CFP2000 Result

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Hewlett-Packard Company
ProLiant DL385 (AMD Opteron (TM) 254)

SPECfp2000 = 2267
SPECfp_base2000 = 2051

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	1000 2000 3000 4000			
168.wupwise	1600	56.6	2828	48.6	3294	[Bar chart showing ratio 3294]			
171.swim	3100	117	2647	114	2723	[Bar chart showing ratio 2723]			
172.mgrid	1800	95.8	1878	90.7	1984	[Bar chart showing ratio 1984]			
173.applu	2100	95.7	2194	82.5	2547	[Bar chart showing ratio 2547]			
177.mesa	1400	64.3	2178	60.6	2309	[Bar chart showing ratio 2309]			
178.galgel	2900	85.4	3396	76.3	3799	[Bar chart showing ratio 3799]			
179.art	2600	96.6	2692	67.0	3880	[Bar chart showing ratio 3880]			
183.quake	1300	75.1	1730	68.0	1912	[Bar chart showing ratio 1912]			
187.facerec	1900	71.0	2677	67.9	2797	[Bar chart showing ratio 2797]			
188.amp	2200	138	1594	127	1727	[Bar chart showing ratio 1727]			
189.lucas	2000	92.4	2166	92.8	2155	[Bar chart showing ratio 2155]			
191.fma3d	2100	126	1661	118	1774	[Bar chart showing ratio 1774]			
200.sixtrack	1100	136	811	115	959	[Bar chart showing ratio 959]			
301.apsi	2600	147	1766	143	1812	[Bar chart showing ratio 1812]			

Hardware

CPU: AMD Opteron (TM) 254
CPU MHz: 2800
FPU: Integrated
CPU(s) enabled: 1 core, 1 chip, 1 core/chip
CPU(s) orderable: 1,2
Parallel: No
Primary Cache: 64KBI + 64KBD on chip
Secondary Cache: 1024KB(I+D) on chip
L3 Cache: N/A
Other Cache: N/A
Memory: 4x2048MB 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-default
Compiler: PathScale EKOPATH(TM) Compiler Suite, Release 2.1
AMD Core Math Library 2.5.1
File System: Linux/ext2
System State: Multi-user run level 3

Notes/Tuning Information

```
+FDO: PASS1= -fb_create fbdata PASS2= -fb_opt fbdata
+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=on
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
 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
 177.mesa: -O2 -ipa -OPT:Ofast -fno-math-errno -CG:local_fwd_sched=on
              -WOPT:mem_opnds=on +FDO
```



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Notes/Tuning Information (Continued)

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178.galgel: -Ofast -OPT:fast_complex-on RM_SOURCES=lapak.f90 +ACML
179.art: -O3 -OPT:ro=2:div_split=on:alias=typed -fno-math-errno -m32 +FDO
183.quake: -Ofast -CG:load_exe=2 -WOPT:mem_opnds=on -m32 +FDO
187.facerec: -Ofast -OPT:treeheight=on:IEEE_NaN_Inf=off:ro=3 -CG:load_exe=0 -LNO:fusion=2
            -IPA:plimit=1500 +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

```

BIOS Configuration Notes
Node Interleaving is Disabled

Other Configuration Notes
Single-processor kernel was used