



CFP2000 Result

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Hewlett-Packard Company
ProLiant DL385 G2 (AMD Opteron (TM) 2218)

SPECfp2000 = **2278**
SPECfp_base2000 = **2059**

SPEC license #: 3 Tested by: Hewlett-Packard Company Test date: Aug-2006 Hardware Avail: Sep-2006 Software Avail: Apr-2006

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	1000 2000 3000 4000			
168.wupwise	1600	58.3	2742	49.9	3204	[Bar chart showing ratio 3204]			
171.swim	3100	105	2942	97.8	3169	[Bar chart showing ratio 3169]			
172.mgrid	1800	98.7	1824	87.9	2047	[Bar chart showing ratio 2047]			
173.applu	2100	95.1	2209	86.3	2432	[Bar chart showing ratio 2432]			
177.mesa	1400	72.9	1920	64.1	2183	[Bar chart showing ratio 2183]			
178.galgel	2900	85.2	3406	75.8	3824	[Bar chart showing ratio 3824]			
179.art	2600	92.7	2805	68.5	3798	[Bar chart showing ratio 3798]			
183.earth	1300	74.7	1740	69.1	1881	[Bar chart showing ratio 1881]			
187.facerec	1900	70.1	2710	68.0	2794	[Bar chart showing ratio 2794]			
188.amp	2200	141	1565	135	1627	[Bar chart showing ratio 1627]			
189.lucas	2000	91.3	2190	77.5	2582	[Bar chart showing ratio 2582]			
191.fma3d	2100	119	1770	120	1752	[Bar chart showing ratio 1752]			
200.sixtrack	1100	128	862	121	911	[Bar chart showing ratio 911]			
301.apsi	2600	156	1670	145	1796	[Bar chart showing ratio 1796]			

Hardware

CPU: AMD Opteron (TM) 2218
 CPU MHz: 2600
 FPU: Integrated
 CPU(s) enabled: 1 core, 1 chip, 2 cores/chip
 CPU(s) orderable: 1,2 chips
 Parallel: No
 Primary Cache: 64 KB I + 64 KB D on chip per core
 Secondary Cache: 1 MB I+D on chip per core
 L3 Cache: N/A
 Other Cache: N/A
 Memory: 8 GB (4x2048 MB PC2-5300P CL5.0)
 Disk Subsystem: 1x36 GB 10 K SAS
 Other Hardware:

Software

Operating System: SuSE Linux Enterprise Server 9 (x86_64) SP 3
 SuSE kernel 2.6.5-7.244-default
 Compiler: PathScale EKOPATH(TM) Compiler Suite, Release 2.4
 AMD Core Math Library 3.5.0
 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 +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
  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 +FDO
  177.mesa: -O2 -ipa -OPT:Ofast -fno-math-errno -CG:local_fwd_sched=on
               -WOPT:mem_opnds=on +FDO
```



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SPECfp2000 = 2278
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Notes/Tuning Information (Continued)

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178.galgel: -Ofast -OPT:fast_complex-on RM_SOURCES=lapak.f90 +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.ammmp: -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 used