



# CFP2000 Result

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Hewlett-Packard Company  
ProLiant DL385 (AMD Opteron (TM) 252)

SPECfp2000 = 1951  
SPECfp\_base2000 = 1808

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	1000 2000 3000 4000			
168.wupwise	1600	83.3	1920	70.9	2256	[Bar chart showing ratio 2256]			
171.swim	3100	125	2486	125	2479	[Bar chart showing ratio 2479]			
172.mgrid	1800	105	1710	96.7	1861	[Bar chart showing ratio 1861]			
173.applu	2100	122	1728	106	1980	[Bar chart showing ratio 1980]			
177.mesa	1400	70.0	1999	64.0	2186	[Bar chart showing ratio 2186]			
178.galgel	2900	97.0	2989	88.2	3288	[Bar chart showing ratio 3288]			
179.art	2600	111	2346	80.7	3220	[Bar chart showing ratio 3220]			
183.earth	1300	80.4	1617	80.1	1622	[Bar chart showing ratio 1622]			
187.facerec	1900	88.7	2143	86.6	2194	[Bar chart showing ratio 2194]			
188.amp	2200	146	1511	140	1571	[Bar chart showing ratio 1571]			
189.lucas	2000	99.8	2004	99.4	2012	[Bar chart showing ratio 2012]			
191.fma3d	2100	135	1558	130	1619	[Bar chart showing ratio 1619]			
200.sixtrack	1100	149	737	140	786	[Bar chart showing ratio 786]			
301.apsi	2600	156	1669	153	1700	[Bar chart showing ratio 1700]			

### Hardware

CPU: AMD Opteron (TM) 252  
CPU MHz: 2600  
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: 8x2048MB PC3200 DDR 400  
Disk Subsystem: 1x36.4GB Ultra320 SCSI  
Other Hardware:

### Software

Operating System: SuSE Linux Enterprise Server 9 for AMD64  
SuSE kernel 2.6.5-7.97-smp  
Compiler: PathScale EKO Compiler Suite, Release 1.4  
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
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
               +FDO
               loader: -IPA:space=1000:linear=on:plimit=50000:callee_limit=5000
                       -INLINE:aggressive=on
  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
```



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## Notes/Tuning Information (Continued)

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-OPT:ro=3 -TENV:X=3 -WOPT:val=2
177.mesa: -O2 -ipa -OPT:Ofast -fno-math-errno -CG:local_fwd_sched=on +FDO
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.equake: -Ofast -WOPT:mem_opnds=on +FDO
Note: The configuration file contains peak optimization flags for 183.equake that are
not invoked due to a syntax error. The options invoked during compilation
are correctly described in the notes above.
187.facerec: -Ofast -OPT:treeheight=on:IEEE_NaN_Inf=off:ro=3 -CG:load_exe=0
loader: -LNO:fusion=2 +FDO
188.ammp: -IPA:plimit=1800
-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 +FDO
loader: -IPA:pu_reorder=1
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

```