



CFP2000 Result

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Hewlett-Packard Company
ProLiant DL145 G2 (AMD Opteron (TM) 252)

SPECfp2000 = **2084**
SPECfp_base2000 = **1908**

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	1000 2000 3000 4000			
168.wupwise	1600	60.8	2630	51.3	3121	[Bar chart showing ratio 3121]			
171.swim	3100	121	2565	121	2565	[Bar chart showing ratio 2565]			
172.mgrid	1800	102	1770	94.4	1906	[Bar chart showing ratio 1906]			
173.applu	2100	100	2091	92.4	2272	[Bar chart showing ratio 2272]			
177.mesa	1400	69.9	2004	65.4	2140	[Bar chart showing ratio 2140]			
178.galgel	2900	92.6	3132	83.7	3464	[Bar chart showing ratio 3464]			
179.art	2600	98.5	2640	69.6	3736	[Bar chart showing ratio 3736]			
183.quake	1300	77.9	1668	72.8	1785	[Bar chart showing ratio 1785]			
187.facerec	1900	74.9	2535	71.7	2650	[Bar chart showing ratio 2650]			
188.amp	2200	170	1296	159	1381	[Bar chart showing ratio 1381]			
189.lucas	2000	101	1986	101	1972	[Bar chart showing ratio 1972]			
191.fma3d	2100	134	1572	125	1679	[Bar chart showing ratio 1679]			
200.sixtrack	1100	145	757	126	872	[Bar chart showing ratio 872]			
301.apsi	2600	164	1582	161	1611	[Bar chart showing ratio 1611]			

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: 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-smp
Compiler: PathScale EKO 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
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
```



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Notes/Tuning Information (Continued)

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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 RM_SOURCES=lapak.f90 +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=1500 +FDO
188.amp:       -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

Other Configuration Notes
Taskset utility used to bind process to CPU(s)