CFP2000 Result

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Hewlett-Packard Company

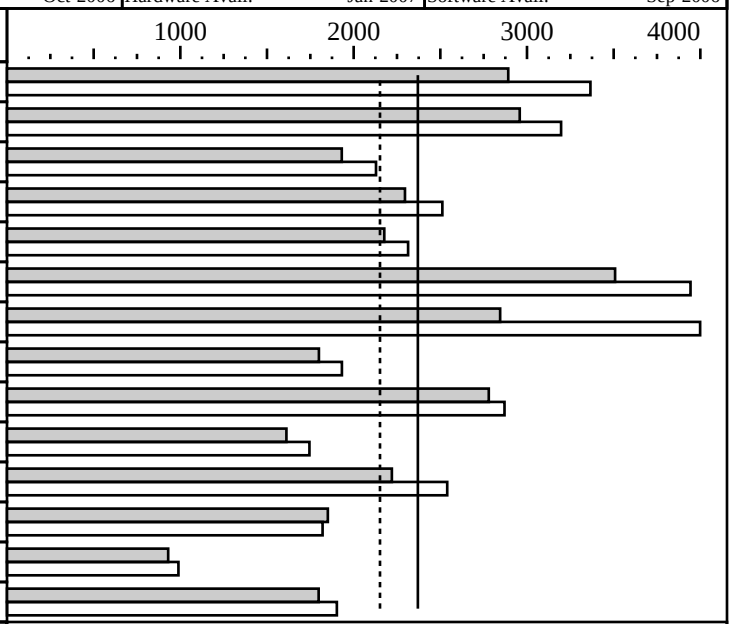
ProLiant DL385 G2 (AMD Opteron (TM) 2220SE)

SPECfp2000 = 2370

SPECfp_base2000 = 2152

SPEC license #: 3 | Tested by: Hewlett-Packard Company | Test date: Oct-2006 | Hardware Avail: Jan-2007 | Software Avail: Sep-2006

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	55.3	2892	47.5	3366
171.swim	3100	105	2958	97.0	3197
172.mgrid	1800	93.2	1931	84.6	2129
173.applu	2100	91.5	2296	83.6	2512
177.mesa	1400	64.3	2177	60.5	2314
178.galgel	2900	82.7	3508	73.5	3943
179.art	2600	91.4	2845	65.0	3999
183.equake	1300	72.2	1799	67.3	1932
187.facerec	1900	68.4	2779	66.2	2870
188.ammp	2200	136	1612	126	1745
189.lucas	2000	90.1	2220	78.7	2540
191.fma3d	2100	113	1851	115	1821
200.sixtrack	1100	118	930	111	989
301.apsi	2600	145	1798	137	1903



Hardware

CPU:	AMD Opteron (TM) 2220SE
CPU MHz:	2800
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 (4x2 GB 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 2.5 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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Notes/Tuning Information (Continued)

```
    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.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 used
```