CFP2000 Result

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Hewlett-Packard Company

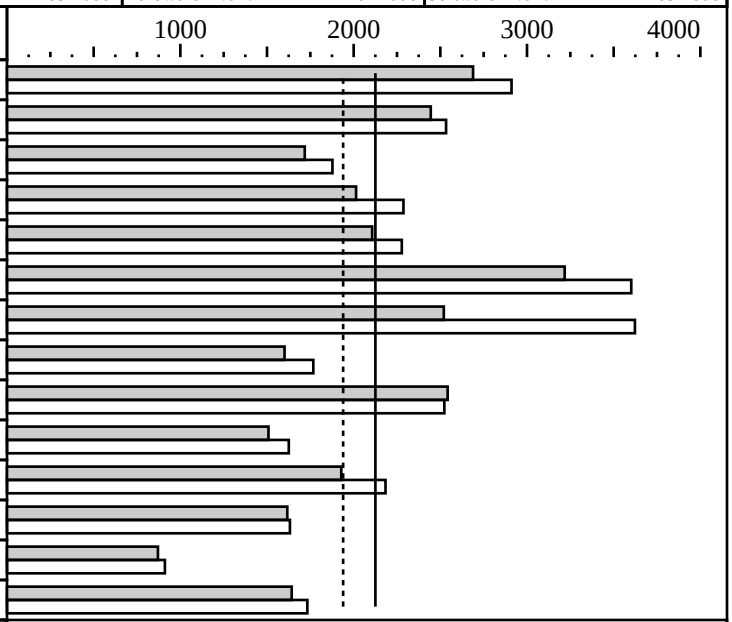
ProLiant BL45p (AMD Opteron (TM) 885)

SPECfp2000 = 2125

SPECfp_base2000 = 1939

SPEC license #: 3 | Tested by: Hewlett-Packard Company | Test date: Feb-2006 | Hardware Avail: Mar-2006 | Software Avail: Feb-2006

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	59.5	2689	55.0	2911
171.swim	3100	127	2445	122	2533
172.mgrid	1800	105	1718	95.9	1878
173.applu	2100	104	2014	91.8	2287
177.mesa	1400	66.5	2107	61.5	2278
178.galgel	2900	90.1	3217	80.5	3601
179.art	2600	103	2520	71.8	3623
183.equake	1300	81.2	1601	73.6	1767
187.facerec	1900	74.7	2542	75.3	2523
188.ammp	2200	146	1509	135	1626
189.lucas	2000	104	1928	91.6	2184
191.fma3d	2100	130	1617	129	1632
200.sixtrack	1100	126	871	121	911
301.apsi	2600	158	1643	150	1733



Hardware

CPU:	AMD Opteron (TM) 885
CPU MHz:	2600
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 2 cores/chip
CPU(s) orderable:	1,2,4
Parallel:	No
Primary Cache:	64KBI + 64KBD (on chip) per core
Secondary Cache:	1024KB(I+D) (on chip) per core
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) SP3 SuSE kernel 2.6.5-7.244-default
Compiler:	PathScale EKOPath(TM) Compiler Suite, Release 2.3 AMD Core Math Library 3.0.0
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 was used
```