CFP2000 Result

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Hewlett-Packard Company

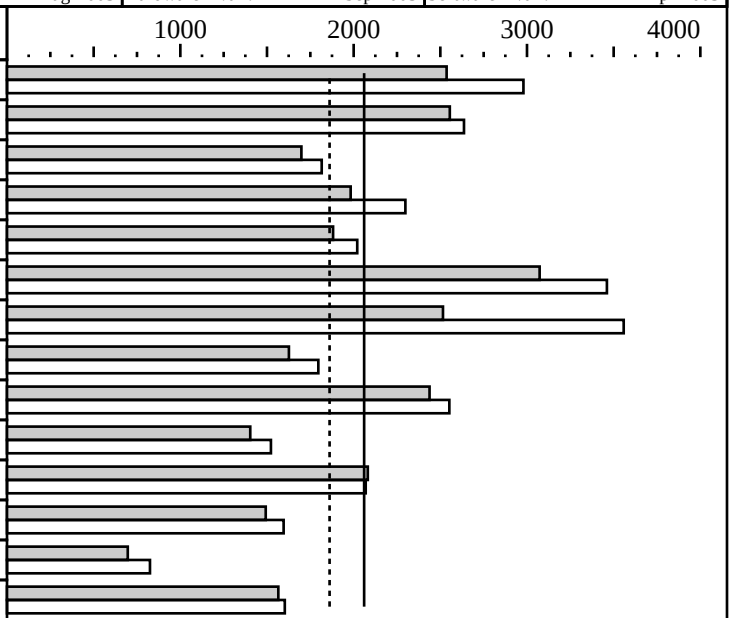
ProLiant BL45p (AMD Opteron (TM) 880)

SPECfp2000 = 2060

SPECfp_base2000 = 1861

SPEC license #: 3 | Tested by: Hewlett-Packard Company | Test date: Aug-2005 | Hardware Avail: Sep-2005 | Software Avail: Apr-2005

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	63.1	2536	53.7	2979
171.swim	3100	121	2555	118	2636
172.mgrid	1800	106	1698	99.1	1816
173.applu	2100	106	1983	91.4	2298
177.mesa	1400	74.4	1881	69.3	2021
178.galgel	2900	94.4	3073	83.8	3461
179.art	2600	103	2515	73.1	3558
183.equake	1300	79.9	1626	72.4	1796
187.facerec	1900	77.9	2438	74.5	2552
188.ammp	2200	157	1403	144	1523
189.lucas	2000	96.1	2081	96.6	2069
191.fma3d	2100	141	1493	132	1596
200.sixtrack	1100	158	697	133	825
301.apsi	2600	166	1565	162	1603



Hardware

CPU:	AMD Opteron (TM) 880
CPU MHz:	2400
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) SP 1 SuSE kernel 2.6.5-7.139-default
Compiler:	PathScale EKOPath(TM) 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=on
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
  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
    179.art:       -O3 -OPT:ro=2:div_split=on:alias=typed -fno-math-errno -m32 +FDO
    183.equake:    -Ofast -CG:load_exe=2 -WOPT:mem_opnds=on -m32 +FDO
    187.facerec:   -Ofast -OPT:treeheight=on:IEEE_NaN_Inf=off:ro=3 -CG:load_exe=0 -LNO:fusion=2
                   -IPA:plimit=1500 +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
```