CFP2000 Result

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Hewlett-Packard Company

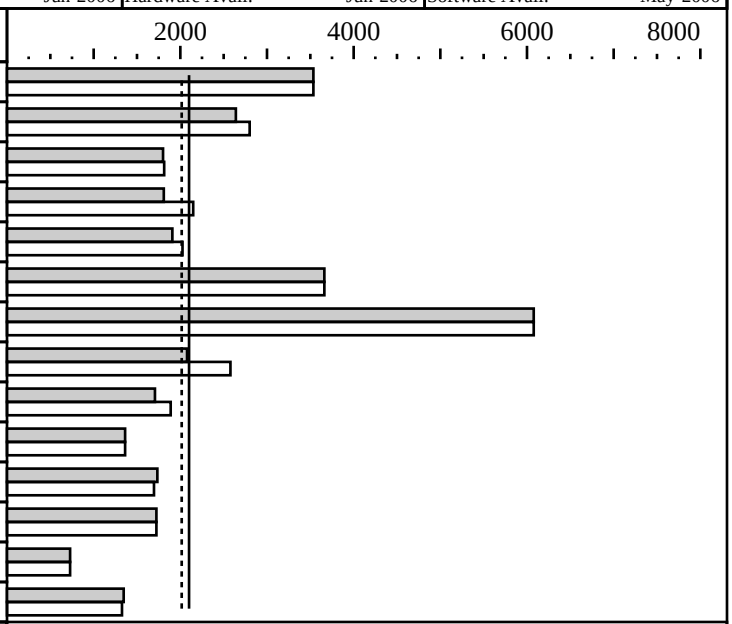
ProLiant BL20p G4 (3.73GHz, Intel Xeon processor 5080)

SPECfp2000 = 2101

SPECfp_base2000 = 2016

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	45.3	3535	45.3	3535
171.swim	3100	117	2641	111	2800
172.mgrid	1800	100.0	1801	99.3	1814
173.applu	2100	116	1809	97.7	2148
177.mesa	1400	73.4	1908	69.1	2025
178.galgel	2900	79.2	3662	79.2	3662
179.art	2600	42.8	6078	42.8	6078
183.equake	1300	62.6	2078	50.4	2578
187.facerec	1900	111	1707	101	1889
188.ammp	2200	161	1363	161	1363
189.lucas	2000	115	1735	118	1696
191.fma3d	2100	122	1724	122	1724
200.sixtrack	1100	151	728	151	728
301.apsi	2600	193	1346	196	1327



Hardware

CPU:	Intel Xeon processor 5080 (3.73GHz, 2x2MB L2, 1066MHz bus)
CPU MHz:	3730
FPU:	Integrated
CPU(s) enabled:	2 cores, 1 chip, 2 cores/chip (Hyper-Threading Technology disabled)
CPU(s) orderable:	1,2 chips
Parallel:	No
Primary Cache:	12K micro-ops I + 16KBD (on chip) per core
Secondary Cache:	2048KB(I+D) (on chip) per core
L3 Cache:	N/A
Other Cache:	N/A
Memory:	8x1024MB PC2-5300F
Disk Subsystem:	1x36GB 10K SAS
Other Hardware:	

Software

Operating System:	RedHat Enterprise Linux 4.0 Advanced Server for AMD/EM64T, Update 3 Kernel 2.6.9-34.EL
Compiler:	Intel C++ Compiler for EM64T-based applications, (Version 9.1 Build 20060323) Intel Fortran Compiler for EM64T-based applications, (Version 9.1 Build 20060323) PathScale EKOPath(TM) Compiler Suite, Release 2.4
File System:	ext2
System State:	Multi-user run level 3

Notes/Tuning Information

```
+FDO: PASS1= -prof_gen  PASS2=-prof_use (Intel Compiler)
+FDO: PASS1= -fb_create fbdata PASS2=-fb_opt fbdata (PathScale Compiler)
ifort is the Intel Fortran compiler, icc is the Intel C++ compiler; and
pathf95 is PathScale Fortran compiler, pathcc is the PathScale C compiler.
Base tuning for C programs:  icc -fast -auto_ilp32 +FDO
Base tuning for FORTRAN programs:  ifort -fast +FDO
Portability:
  -DSPEC_CPU2000_LP64 applied to all benchmarks
  178.galgel:   -FI
Peak tuning:
  168.wupwise:  basepeak=1
  171.swim:     pathf95 -Ofast -LNO:fusion=2:simd=0 -WOPT:val=0 -march=em64t
  172.mgrid:    pathf95 -Ofast -CG:load_exe=0 -LNO:blocking=off:prefetch_ahead=5
                -OPT:ro=3:unroll_size=256 -WOPT:mem_opnds=on -march=em64t
  173.applu:    pathf95 -O3 -ipa -CG:load_exe=0
                -LNO:fission=1:fusion=2:blocking=off:full_unroll_size=9000
                -OPT:IEEE_a=3:ro=3 -TENV:X=3 -march=em64t
```

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Notes/Tuning Information (Continued)

```
    177.mesa:     pathcc -O2 -ipa -OPT:Ofast -fno-math-errno -CG:local_fwd_sched=on
                  -GRA:optimize_boundary=on -march=em64t +FDO
    178.galgel:   basepeak=1
    179.art:      basepeak=1
    183.equake:   icc -fast +FDO ONESTEP=yes -rcd -auto-ilp32
    187.facerec:  pathf95 -Ofast -IPA:plimit=1500 -LNO:fusion=2
                  -OPT:IEEE_NaN_Inf=off:ro=3:unroll_size=0 -march=em64t +FDO
    188.ammp:     basepeak=1
    189.lucas:    ifort -fast ONESTEP=yes
    191.fma3d:    basepeak=1
    200.sixtrack: basepeak=1
    301.apsi:     pathf95 -Ofast -CG:load_exe=0 -LNO:opt=0:prefetch=1 -march=em64t
  BIOS Configuration Notes
      Power Regulator set to Static High Performance Mode
      Hyper-Threading Technology disabled
    Other Configuration Notes
      Single processor kernel used
```