CFP2000 Result

Hewlett-Packard Company

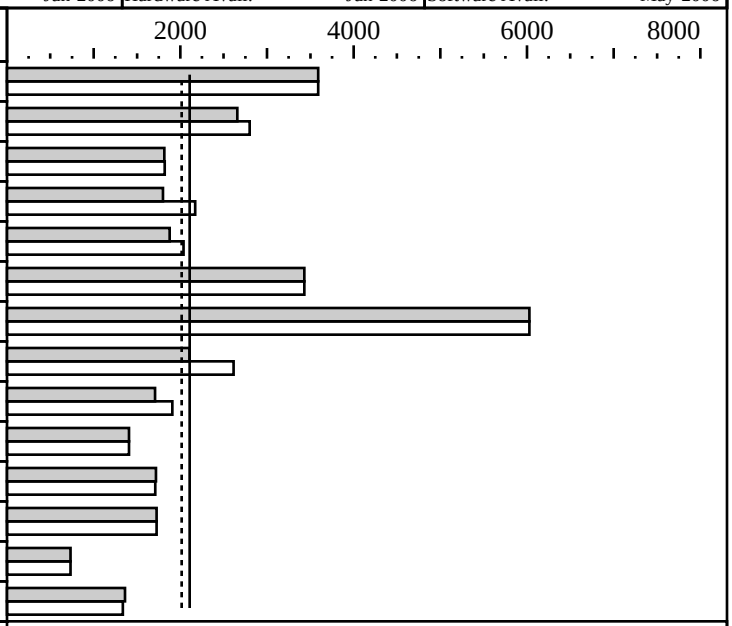
ProLiant ML350 G5 (3.73GHz, Intel Xeon processor 5080)

SPECfp2000 = 2107

SPECfp_base2000 = 2015

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	44.6	3590	44.6	3590
171.swim	3100	117	2657	111	2800
172.mgrid	1800	99.1	1815	98.9	1820
173.applu	2100	117	1800	96.7	2171
177.mesa	1400	74.6	1877	68.7	2037
178.galgel	2900	84.5	3430	84.5	3430
179.art	2600	43.1	6028	43.1	6028
183.equake	1300	61.7	2106	49.7	2615
187.facerec	1900	111	1708	99.6	1908
188.ammp	2200	156	1408	156	1408
189.lucas	2000	116	1719	117	1711
191.fma3d	2100	122	1726	122	1726
200.sixtrack	1100	150	733	150	733
301.apsi	2600	191	1361	195	1336



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:	12KB 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:	4x2048MB 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.ELsmp
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
```

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
      Power Regulator set to Static High Performance Mode
      Hyper-Threading Technology disabled
  BIOS Configuration Notes
```