# CFP2000 Result

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## Hewlett-Packard Company

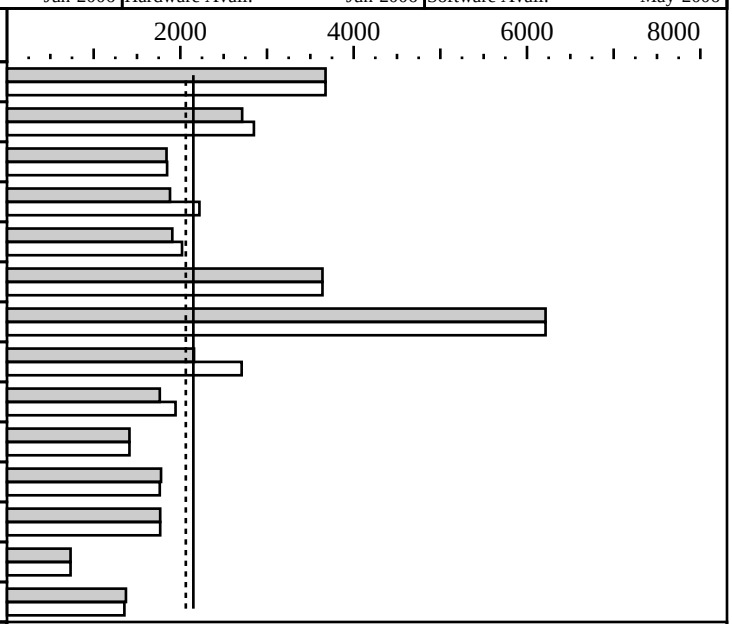
ProLiant DL380 G5 (3.73GHz, Intel Xeon processor 5080)

SPECfp2000 = 2150

SPECfp_base2000 = 2063

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 | 43.5 | 3676 | 43.5 | 3676 |
| 171.swim | 3100 | 114 | 2713 | 109 | 2849 |
| 172.mgrid | 1800 | 97.8 | 1841 | 97.4 | 1847 |
| 173.applu | 2100 | 112 | 1881 | 94.6 | 2220 |
| 177.mesa | 1400 | 73.4 | 1907 | 69.3 | 2020 |
| 178.galgel | 2900 | 79.7 | 3640 | 79.7 | 3640 |
| 179.art | 2600 | 41.8 | 6214 | 41.8 | 6214 |
| 183.equake | 1300 | 60.2 | 2158 | 48.0 | 2708 |
| 187.facerec | 1900 | 108 | 1763 | 97.7 | 1945 |
| 188.ammp | 2200 | 156 | 1413 | 156 | 1413 |
| 189.lucas | 2000 | 113 | 1777 | 113 | 1763 |
| 191.fma3d | 2100 | 119 | 1768 | 119 | 1768 |
| 200.sixtrack | 1100 | 150 | 733 | 150 | 733 |
| 301.apsi | 2600 | 189 | 1372 | 192 | 1355 |




### Hardware

| | |
|---|---|
| CPU: | Intel Xeon processor 5080 (3.73GHz, 2x2MB L2, 1066MHz bus) |
| CPU MHz: | 3730 |
| FPU: | Integrated |
| CPU(s) enabled: | 1 core, 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: | 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.EL |
| Compiler: | Intel C++ Compiler for EM64T-based applications, (Version 9.1 Build 20060323)<br>Intel Fortran Compiler for EM64T-based applications, (Version 9.1 Build 20060323)<br>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
      Power Regulator set to Static High Performance Mode
      Hyper-Threading Technology disabled
  Other Configuration Notes
    Single-User Kernel used
BIOS Configuration Notes
```