# CFP2000 Result



## Hewlett-Packard Company

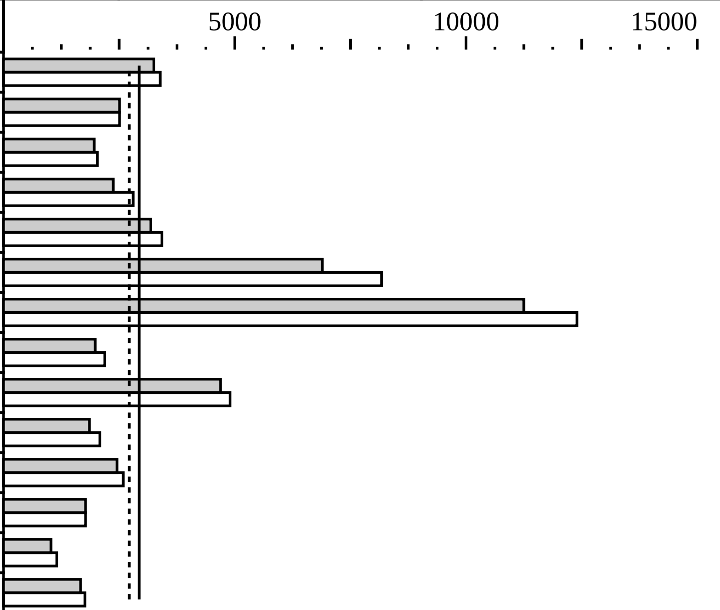
ProLiant DL140 G3 (3.0 GHz, Intel Xeon processor 5160)

SPECfp2000 = 2933

SPECfp_base2000 = 2719

| SPEC license #: 2323 | Tested by: QLogic Corporation | Test date: Nov-2006 | Hardware Avail: Jun-2006 | Software Avail: Aug-2006 |
|---|---|---|---|---|

| Benchmark | Reference Time | Base Runtime | Base Ratio | Runtime | Ratio |
|---|---|---|---|---|---|
| 168.wupwise | 1600 | 49.2 | 3250 | 47.2 | 3388 |
| 171.swim | 3100 | 124 | 2509 | 124 | 2509 |
| 172.mgrid | 1800 | 91.8 | 1961 | 88.6 | 2031 |
| 173.applu | 2100 | 88.5 | 2373 | 74.9 | 2803 |
| 177.mesa | 1400 | 44.0 | 3184 | 40.9 | 3424 |
| 178.galgel | 2900 | 42.1 | 6892 | 35.5 | 8175 |
| 179.art | 2600 | 23.1 | 11249 | 21.0 | 12399 |
| 183.equake | 1300 | 65.6 | 1983 | 59.4 | 2189 |
| 187.facerec | 1900 | 40.5 | 4693 | 38.8 | 4897 |
| 188.ammp | 2200 | 118 | 1859 | 106 | 2083 |
| 189.lucas | 2000 | 81.5 | 2454 | 77.3 | 2589 |
| 191.fma3d | 2100 | 118 | 1774 | 118 | 1774 |
| 200.sixtrack | 1100 | 107 | 1026 | 95.5 | 1152 |
| 301.apsi | 2600 | 156 | 1667 | 148 | 1760 |




### Hardware

CPU: Intel Xeon processor 5160 (1333 MHz system bus)
CPU MHz: 3000
FPU: Integrated
CPU(s) enabled: 4 cores, 2 chips, 2 cores/chip
CPU(s) orderable: 1,2 chips
Parallel: No
Primary Cache: 32KBI + 32KBD on chip, per core
Secondary Cache: 4MB (I+D) on chip, per chip
L3 Cache: N/A
Other Cache: N/A
Memory: 4 GB (4 x 1 GB PC2-5300F)
Disk Subsystem: SATA, 60 GB
Other Hardware: None

### Software

Operating System: SUSE Linux Enterprise Server 10 (x86_64)
Compiler: QLogic PathScale Fortran and C Compilers, Release 2.5
Intel Math Kernel Library 8.1
compat-libstdc++5 for SLES 10
File System: ext2
System State: Multi-user, run level 3

## Notes/Tuning Information

```
Tested by QLogic Corporation
 +FDO: PASS1= -fb_create fbdata  PASS2= -fb_opt fbdata
 +MKL means linking with Intel Math Kernel Library 8.1 with these LD flags:
      -L$(SPEC)/mkl -lmkl_lapack -lmkl
 Base tuning for C programs:       -Ofast -WOPT:mem_opnds=on -march=core +FDO
 Base tuning for FORTRAN programs: -Ofast -LNO:fusion=2 -march=core +FDO
 Portability flags:
   178.galgel:    -fixedform
 Peak tuning:
   168.wupwise:   -Ofast -LNO:fusion=2 -OPT:unroll_size=0
                  -CG:local_fwd_sched=on -march=core
   171.swim:      basepeak=yes
   172.mgrid:     -Ofast -LNO:blocking=off:fusion=2 -march=core
   173.applu:     -Ofast -LNO:fission=1:fusion=2:full_unroll_size=9000
                  -OPT:treeheight=on:unroll_size=0 -march=core
   177.mesa:      -O2 -ipa -IPA:plimit=20000 -WOPT:aggstr=0
                  -march=core +FDO
```

## Notes/Tuning Information (Continued)

```
178.galgel:    -Ofast -CG:load_exe=1:local_fwd_sched=on:prefetch=off
               -OPT:early_intrinsics=on -march=core +MKL
                RM_SOURCES= lapak.f90
179.art:       -Ofast -WOPT:mem_opnds=on:unroll=2 -march=core
183.equake:    -Ofast -OPT:treeheight=on -m32 -march=core +FDO
187.facerec:   -Ofast -IPA:plimit=1500 -LNO:fusion=2
        -OPT:IEEE_NaN_Inf=off:ro=3:unroll_size=0 -march=core +FDO
188.ammp:      -O3 -OPT:IEEE_arith=3:Ofast:alias=disjoint -ffast-math
               -march=core
189.lucas:     -Ofast -CG:load_exe=2 -LNO:fusion=0 -march=core
191.fma3d:     basepeak=yes
200.sixtrack:  -O3 -CG:cflow=off -OPT:Ofast:early_intrinsics=on
               -march=core +FDO
301.apsi:      -Ofast -LNO:opt=0 -march=core
```

Taskset utility used to bind process to CPU(s)