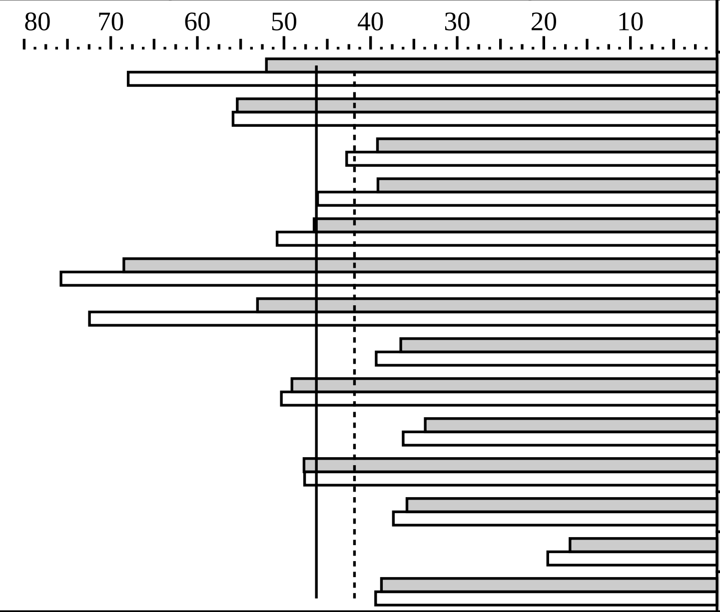
# CFP2000 Result



## Hewlett-Packard Company
ProLiant DL585 (AMD Opteron (TM) 852)

SPECfp_rate2000 = 46.3
SPECfp_rate_base2000 = 41.9

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




| Benchmark | Base Copies | Base Runtime | Base Ratio | Copies | Runtime | Ratio |
|---|---|---|---|---|---|---|
| 168.wupwise | 2 | 71.3 | 52.0 | 2 | 54.6 | 68.0 |
| 171.swim | 2 | 130 | 55.4 | 2 | 129 | 55.9 |
| 172.mgrid | 2 | 107 | 39.2 | 2 | 97.7 | 42.8 |
| 173.applu | 2 | 124 | 39.1 | 2 | 106 | 46.1 |
| 177.mesa | 2 | 69.8 | 46.5 | 2 | 63.9 | 50.8 |
| 178.galgel | 2 | 98.2 | 68.5 | 2 | 88.8 | 75.7 |
| 179.art | 2 | 114 | 53.1 | 2 | 83.2 | 72.5 |
| 183.equake | 2 | 82.6 | 36.5 | 2 | 76.6 | 39.4 |
| 187.facerec | 2 | 89.8 | 49.1 | 2 | 87.6 | 50.3 |
| 188.ammp | 2 | 152 | 33.7 | 2 | 141 | 36.2 |
| 189.lucas | 2 | 97.3 | 47.7 | 2 | 97.4 | 47.6 |
| 191.fma3d | 2 | 136 | 35.8 | 2 | 130 | 37.4 |
| 200.sixtrack | 2 | 150 | 17.0 | 2 | 131 | 19.5 |
| 301.apsi | 2 | 156 | 38.7 | 2 | 153 | 39.4 |

### Hardware

| | |
|---|---|
| CPU: | AMD Opteron (TM) 852 |
| CPU MHz: | 2600 |
| FPU: | Integrated |
| CPU(s) enabled: | 2 cores, 2 chips, 1 core/chip |
| CPU(s) orderable: | 2,4 |
| Parallel: | No |
| Primary Cache: | 64KBI + 64KBD on chip |
| Secondary Cache: | 1024KB(I+D) on chip |
| L3 Cache: | N/A |
| Other Cache: | N/A |
| Memory: | 8x2048MB PC3200 CL3.0 |
| Disk Subsystem: | 1x36.4GB 15K Ultra320 SCSI |
| Other Hardware: | |

### Software

| | |
|---|---|
| Operating System: | SuSE Linux Enterprise Server 9 (x86_64) SP 1<br>SuSE kernel 2.6.5-7.139-smp |
| Compiler: | PathScale EKO Compiler Suite, Release 2.0<br>AMD Core Math Library 2.5.1 |
| File System: | Linux/ext2 |
| System State: | Multi-user run level 3 |

## Notes/Tuning Information

```
+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
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
                 -TENV:X=4 -IPA:space=1000:linear=on:plimit=50000:callee_limit=5000
                 -INLINE:aggressive=on +FDO
  171.swim:      -Ofast -LNO:fusion=2
  172.mgrid:     -O3 -LNO:fusion=2:blocking=off
                -OPT:Ofast:unroll_times_max=8:unroll_size=256:ro=3 -CG:gcm=off:cflow=off
  173.applu:     -Ofast -CG:local_fwd_sched=on
                 -LNO:fusion=2:fission=2:full_unroll_size=10000:prefetch=3
                 -OPT:ro=3 -TENV:X=3 -WOPT:val=2
  177.mesa:      -O2 -ipa -OPT:Ofast -fno-math-errno -CG:local_fwd_sched=on +FDO
```

## Notes/Tuning Information (Continued)

```
      178.galgel:    -Ofast -OPT:fast_complex -CG:use_movlpd=on +ACML
      179.art:       -O3 -OPT:ro=2:div_split=on:alias=typed -fno-math-errno -m32 +FDO
      183.equake:    -Ofast -WOPT:mem_opnds=on -CG:local_fwd_sched=on -m32
      187.facerec:   -Ofast -OPT:treeheight=on:IEEE_NaN_Inf=off:ro=3 -CG:load_exe=0
                     -LNO:fusion=2 -IPA:plimit=1800 +FDO
      188.ammp:      -O3 -OPT:alias=disjoint:unroll_times_max=8:Ofast:ro=3
                     -fno-math-errno -TENV:X=4 -LNO:prefetch=0 +FDO
      189.lucas:     -Ofast -CG:local_fwd_sched=on -LNO:fusion=2 +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:  -Ofast -CG:load_exe=1 +FDO
      301.apsi:      -Ofast -TENV:X=4 -LNO:fusion=2:prefetch=0
    BIOS Configuration Notes
      Node Interleaving is Disabled
```