# CFP2000 Result

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## Hewlett-Packard Company

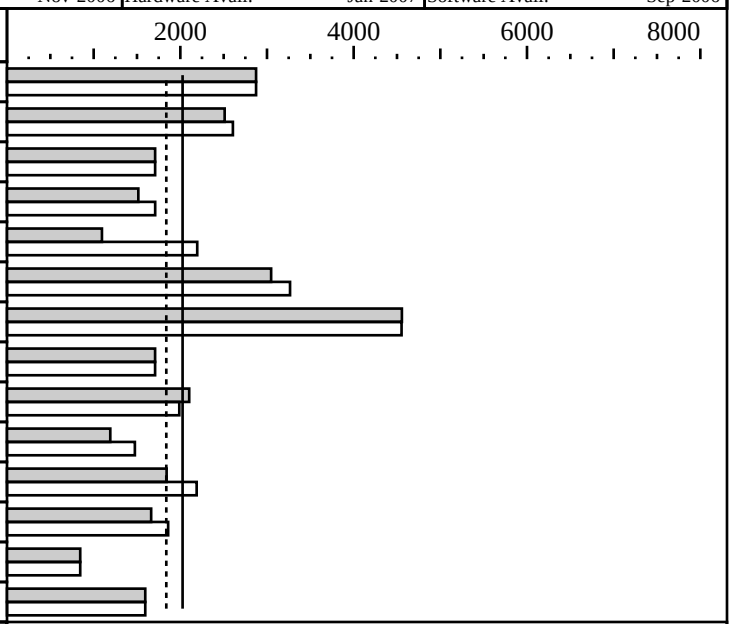
ProLiant DL145 G3 (AMD Opteron (TM) 2220SE)

SPECfp2000 = 2026

SPECfp_base2000 = 1838

SPEC license #: 3 | Tested by: Hewlett-Packard Company | Test date: Nov-2006 | Hardware Avail: Jan-2007 | Software Avail: Sep-2006

| Benchmark | Reference Time | Base Runtime | Base Ratio | Runtime | Ratio |
|---|---|---|---|---|---|
| 168.wupwise | 1600 | 55.7 | 2874 | 55.7 | 2874 |
| 171.swim | 3100 | 123 | 2511 | 119 | 2606 |
| 172.mgrid | 1800 | 105 | 1709 | 105 | 1709 |
| 173.applu | 2100 | 139 | 1515 | 123 | 1710 |
| 177.mesa | 1400 | 128 | 1095 | 63.8 | 2195 |
| 178.galgel | 2900 | 95.2 | 3048 | 88.8 | 3266 |
| 179.art | 2600 | 57.1 | 4556 | 57.1 | 4553 |
| 183.equake | 1300 | 76.1 | 1709 | 76.1 | 1709 |
| 187.facerec | 1900 | 90.4 | 2102 | 95.6 | 1988 |
| 188.ammp | 2200 | 185 | 1192 | 149 | 1475 |
| 189.lucas | 2000 | 109 | 1842 | 91.4 | 2188 |
| 191.fma3d | 2100 | 126 | 1663 | 113 | 1859 |
| 200.sixtrack | 1100 | 130 | 845 | 130 | 845 |
| 301.apsi | 2600 | 163 | 1595 | 163 | 1595 |




### Hardware

| | |
|---|---|
| CPU: | AMD Opteron (TM) 2220SE |
| CPU MHz: | 2800 |
| FPU: | Integrated |
| CPU(s) enabled: | 2 cores, 1 chip, 2 cores/chip |
| CPU(s) orderable: | 1,2 chips |
| Parallel: | No |
| Primary Cache: | 64 KB I + 64 KB D on chip per core |
| Secondary Cache: | 1 MB I+D on chip per core |
| L3 Cache: | N/A |
| Other Cache: | N/A |
| Memory: | 8 GB (4x2 GB PC2-5300P CL5.0) |
| Disk Subsystem: | 1x250 GB SATA |
| Other Hardware: | |

### Software

| | |
|---|---|
| Operating System: | Windows Server 2003 Enterprise SP1 |
| Compiler: | Intel C++ Compiler for 32-bit applications, (version 9.1 Build 20060816Z)<br>Intel Fortran Compiler for 32-bit applications, (version 9.1 build 20060816Z)<br>PGI Fortran compiler 6.0-8 for Windows XP (32-bit)<br>PGI C compiler 6.0-8 for Windows XP (32-bit)<br>Microsoft Visual Studio .NET 7.0.9466 (for libraries)<br>AMD Core Math Library V3.5.0 |
| File System: | NTFS |
| System State: | Default |

## Notes/Tuning Information

```
 +FDO: PASS1=-Qprof_gen  PASS2=-Qprof_use (Intel compiler)
 +FDO*: PASS1=-Mpfi  PASS2=-Mpfo (PGI compiler)
 +ACML is linking with AMD Core Math Library V3.5.0
 ifort is the Intel Fortran compiler, icl is the Intel C++ compiler and
 pgf90 is the PGI Fortran compiler, pgcc is the PGI C compiler.
Base tuning for C programs:       pgcc  -fastsse -Mipa=fast,inline
Base tuning for FORTRAN programs: pgf90 -fastsse -Mipa=fast,inline +FDO* ONESTEP=1
Portability flags:
  178.galgel: -Mfixed
Peak tuning:
 168.wupwise:       pgf90 basepeak=yes
 171.swim:          ifort -Qipo  -O3  -QaxN -QxW +FDO -Qunroll0 ONESTEP=1
 172.mgrid:         pgf90 basepeak=yes
 173.applu:         ifort -Qipo  -O3  -QaxN -QxW +FDO -auto ONESTEP=1
 177.mesa:         icl   -Qipo -arch:SSE2       +FDO -Qunroll1 -Qansi_alias ONESTEP=1
                        -Qoption,c,-ip_ninl_max_stats=1500,-ip_ninl_max_total_stats=4500
 178.galgel:       pgf90 -fastsse -Mipa=fast,safe RM_SOURCES=lapak.f90 -Munix +ACML ONESTEP=1
```

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## Notes/Tuning Information (Continued)

```
 179.art:           pgcc  -fastsse -Mipa=fast,inline
 183.equake:        icl   basepeak=yes
 187.facerec:       ifort -Qipo            -QxW +FDO -Qunroll3 ONESTEP=1
                        -Qoption,f,-ip_ninl_max_stats=2500,-ip_ninl_max_total_stats=7000
 188.ammp:          icl   -Oa   -arch:SSE2  -Zp4      -Qansi_alias ONESTEP=1
 189.lucas:         ifort -Qipo            -QxW      -Qunroll1 ONESTEP=1
 191.fma3d:         ifort -Qipo       -QaxN -QxW +FDO -Qansi-alias- ONESTEP=1
 200.sixtrack:      pgf90 basepeak=yes
 301.apsi:          pgf90 basepeak=yes
BIOS Configuration Notes
  Node Interleaving is Disabled
Other Configuration Notes
  The start /b /wait /affinity command is used to bind CPU(s) to processes.
```