



CFP2000 Result

Copyright ©1999-2005, Standard Performance Evaluation Corporation

Hewlett-Packard Company
ProLiant ML350 G5 (3.00GHz, Intel Xeon processor 5160)

SPECfp_rate2000 = **76.8**
SPECfp_rate_base2000 = **72.2**

SPEC license #: 3 Tested by: Hewlett-Packard Company Test date: Jun-2006 Hardware Avail: Jun-2006 Software Avail: May-2006

| 250 200 150 100 50 | | | | | Benchmark | Base Copies | Base Runtime | Base Ratio | Copies | Runtime | Ratio |
|--------------------|--|--|--|--|--------------|-------------|--------------|------------|--------|---------|-------|
| | | | | | 168.wupwise | 4 | 71.5 | 104 | 4 | 71.5 | 104 |
| | | | | | 171.swim | 4 | 339 | 42.4 | 4 | 340 | 42.3 |
| | | | | | 172.mgrid | 4 | 220 | 38.0 | 4 | 220 | 37.9 |
| | | | | | 173.applu | 4 | 250 | 39.0 | 4 | 167 | 58.5 |
| | | | | | 177.mesa | 4 | 48.3 | 135 | 4 | 43.5 | 149 |
| | | | | | 178.galgel | 4 | 62.5 | 215 | 4 | 62.5 | 215 |
| | | | | | 179.art | 4 | 55.2 | 219 | 4 | 55.2 | 219 |
| | | | | | 183.equake | 4 | 134 | 44.9 | 4 | 107 | 56.3 |
| | | | | | 187.facerec | 4 | 94.1 | 93.7 | 4 | 84.5 | 104 |
| | | | | | 188.amp | 4 | 123 | 83.2 | 4 | 123 | 83.2 |
| | | | | | 189.lucas | 4 | 220 | 42.2 | 4 | 219 | 42.4 |
| | | | | | 191.fma3d | 4 | 183 | 53.2 | 4 | 183 | 53.2 |
| | | | | | 200.sixtrack | 4 | 97.5 | 52.4 | 4 | 97.5 | 52.4 |
| | | | | | 301.apsi | 4 | 197 | 61.3 | 4 | 193 | 62.7 |

Hardware

CPU: Intel Xeon processor 5160 (3.00GHz, 4MB L2 shared, 1333MHz 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: 4096KB(I+D) (on chip) shared
L3 Cache: N/A
Other Cache: N/A
Memory: 4x2048MB PC2-5300F
Disk Subsystem: 1x36GB 15K SAS
Other Hardware:

Software

Operating System: RedHat Enterprise Linux 4.0 Advanced Server 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
```



CFP2000 Result

Copyright ©1999-2005, Standard Performance Evaluation Corporation

Hewlett-Packard Company
ProLiant ML350 G5 (3.00GHz, Intel Xeon processor 5160)

SPECfp_rate2000 = 76.8
SPECfp_rate_base2000 = 72.2

SPEC license #: 3 | Tested by: Hewlett-Packard Company | Test date: Jun-2006 | Hardware Avail: Jun-2006 | Software Avail: May-2006

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
188.ammp: basepeak=1
189.lucas: ifort -fast ONESTEP=yes
191.fma3d: basepeak=1
200.sixtrack: basepeak=1
301.apsi: pathf95 -Ofast -CG:load_exe=0 -LNO:opt=0:prefetch=1 -march=em64t

```

BIOS Configuration Notes

Power Regulator set to Static High Performance Mode