



# CFP2000 Result

Copyright ©1999-2005, Standard Performance Evaluation Corporation

## Hewlett-Packard Company

ProLiant ML350 G5 (3.73GHz, Intel Xeon processor 5080)

SPECfp\_rate2000 = 39.2

SPECfp\_rate\_base2000 = 37.2

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

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	2	58.0	64.0	2	58.0	64.0
171.swim	2	215	33.4	2	214	33.6
172.mgrid	2	138	30.2	2	139	30.1
173.applu	2	174	28.0	2	125	38.8
177.mesa	2	74.5	43.6	2	69.0	47.0
178.galgel	2	92.2	73.0	2	92.2	73.0
179.art	2	53.5	113	2	53.5	113
183.quake	2	102	29.6	2	79.2	38.1
187.facerec	2	120	36.8	2	109	40.4
188.amp	2	172	29.7	2	172	29.7
189.lucas	2	157	29.6	2	156	29.7
191.fma3d	2	154	31.6	2	154	31.6
200.sixtrack	2	150	17.0	2	150	17.0
301.apsi	2	204	29.6	2	215	28.1

### Hardware

CPU: Intel Xeon processor 5080 (3.73GHz, 2x2MB L2, 1066MHz bus)  
CPU MHz: 3730  
FPU: Integrated  
CPU(s) enabled: 2 cores, 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.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 (3.73GHz, Intel Xeon processor 5080)

SPECfp\_rate2000 = 39.2  
SPECfp\_rate\_base2000 = 37.2

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 +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
BIOS Configuration Notes
```