



CFP2000 Result

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

SPECfp_rate2000 = **48.4**
SPECfp_rate_base2000 = **45.7**

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	52.8	70.4	2	52.8	70.4
171.swim	2	221	32.6	2	217	33.2
172.mgrid	2	163	25.7	2	166	25.2
173.applu	2	151	32.4	2	109	44.7
177.mesa	2	48.0	67.7	2	43.1	75.4
178.galgel	2	54.2	124	2	54.2	124
179.art	2	45.3	133	2	45.3	133
183.quake	2	92.9	32.5	2	75.3	40.1
187.facerec	2	78.2	56.4	2	68.2	64.6
188.amp	2	117	43.5	2	117	43.5
189.lucas	2	144	32.2	2	143	32.5
191.fma3d	2	139	35.0	2	139	35.0
200.sixtrack	2	97.3	26.2	2	97.3	26.2
301.apsi	2	175	34.5	2	174	34.7

Hardware

CPU: Intel Xeon processor 5160 (3.00GHz, 4MB L2 shared, 1333MHz bus)
CPU MHz: 3000
FPU: Integrated
CPU(s) enabled: 2 cores, 1 chip, 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
```



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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