



CFP2000 Result

Copyright ©1999-2005, Standard Performance Evaluation Corporation

Hewlett-Packard Company

ProLiant ML570 G4 (3.0GHz, Intel Xeon processor 7041)

SPECfp_rate2000 = 30.7

SPECfp_rate_base2000 = 29.3

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

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	2	77.9	47.7	2	77.9	47.7
171.swim	2	283	25.4	2	281	25.6
172.mgrid	2	182	23.0	2	182	22.9
173.applu	2	210	23.2	2	165	29.6
177.mesa	2	95.6	34.0	2	88.9	36.5
178.galgel	2	119	56.5	2	119	56.5
179.art	2	74.3	81.2	2	74.3	81.2
183.quake	2	135	22.3	2	105	28.6
187.facerec	2	155	28.4	2	136	32.5
188.amp	2	210	24.3	2	210	24.3
189.lucas	2	190	24.4	2	190	24.4
191.fma3d	2	189	25.8	2	189	25.8
200.sixtrack	2	189	13.5	2	189	13.5
301.apsi	2	234	25.8	2	239	25.3

Hardware

CPU: Intel Xeon processor 7041 (3.0GHz, 2x2MB L2, 800MHz bus)
CPU MHz: 3000
FPU: Integrated
CPU(s) enabled: 2 cores, 1 chip, 2 cores/chip (Hyper-Threading Technology disabled)
CPU(s) orderable: 1,2,4
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: 16x2048MB PC2-3200 ECC Dual-rank
Disk Subsystem: 1x36GB 10K SAS
Other Hardware:

Software

Operating System: SuSE Linux Enterprise Server 9 (x86_64) SP 3
SuSE kernel 2.6.5-7.244-smp
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 ML570 G4 (3.0GHz, Intel Xeon processor 7041)

SPECfp_rate2000 = 30.7
SPECfp_rate_base2000 = 29.3

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

Hyper-Threading Technology disabled
Adjacent Sector Prefetch disabled