



CFP2000 Result

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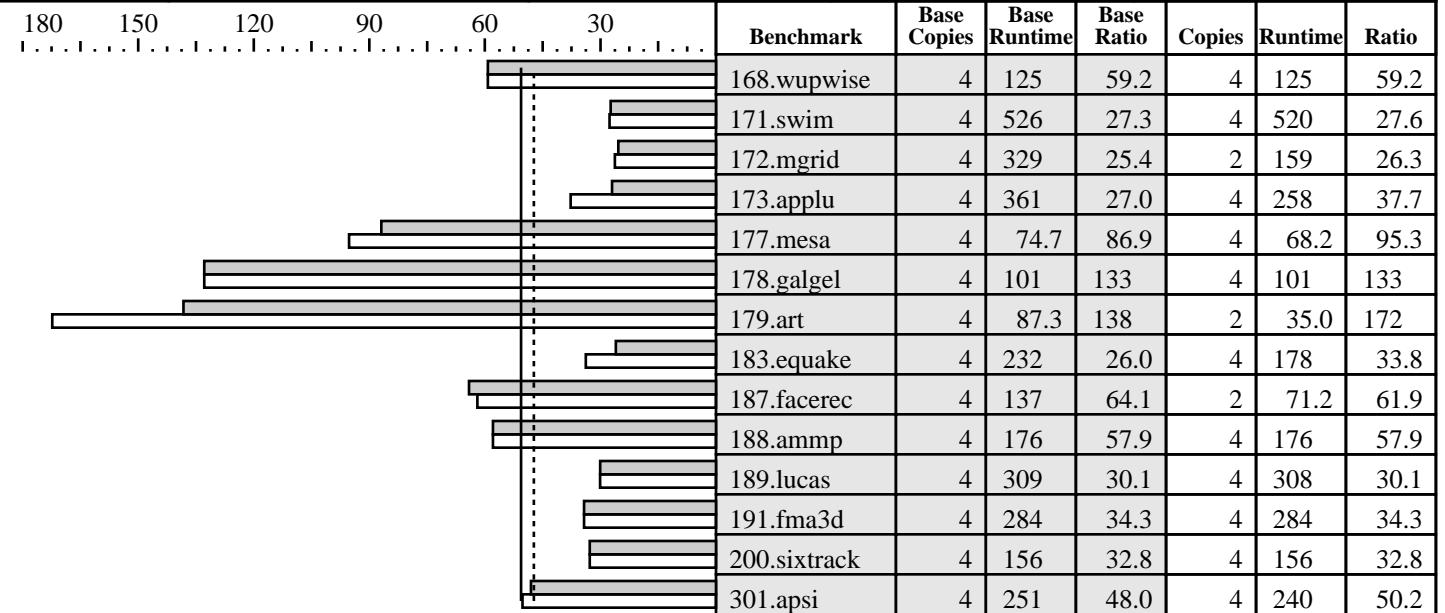
Hewlett-Packard Company

ProLiant BL20p G4 (1.86 GHz, Intel Xeon processor E5320)

SPECfp_rate2000 = 50.6

SPECfp_rate_base2000 = 47.3

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



Hardware

CPU: Intel Xeon processor E5320 (1.86 GHz, 2x4 MB L2 shared, 1066 MHz bus)
 CPU MHz: 1860
 FPU: Integrated
 CPU(s) enabled: 4 cores, 1 chip, 4 cores/chip
 CPU(s) orderable: 1,2 chips
 Parallel: No
 Primary Cache: 32 KB I + 32 KB D on chip per core
 Secondary Cache: 8 MB I+D on chip per chip (4 MB shared per 2 cores)
 L3 Cache: N/A
 Other Cache: N/A
 Memory: 16 GB (8x2 GB PC2-5300F CL5)
 Disk Subsystem: 2x72 GB 10K SAS
 Other Hardware:

Software

Operating System: SuSE Linux Enterprise Server 10 (x86_64)
 Kernel 2.6.16.21-0.8-smp
 Compiler: Intel C++ Compiler for EM64T-based applications, (Version 9.1 Build 20061101)
 Intel Fortran Compiler for EM64T-based applications, (Version 9.1 Build 20061101)
 PathScale EKOPath(TM) Compiler Suite, Release 2.5
 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
 users=2
 173.applu: pathf95 -O3 -ipa -CG:load_exe=0
 -LNO:fission=1:fusion=2:blocking=off:full_unroll_size=9000



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Notes/Tuning Information (Continued)

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- OPT:IEEE_a=3:ro=3 -TENV:X=3 -march=em64t
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: icc -fast -auto_ilp32 +FDO users=2
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
users=2
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
Adjacent Sector Prefetch disabled

Other Configuration Notes

Taskset utility used to bind process to CPU(s)
"ulimit -s unlimited" set