CFP2000 Result

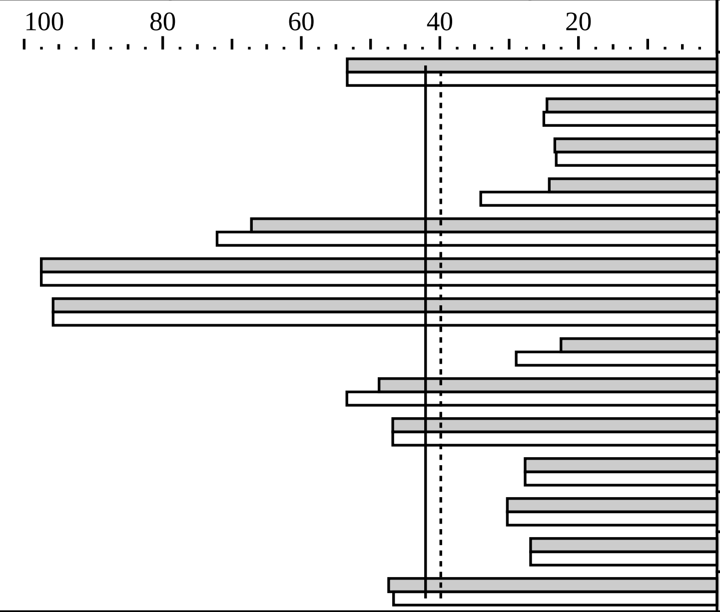
Hewlett-Packard Company

ProLiant DL580 G4 (3.0GHz, Intel Xeon processor 7041)

SPECfp_rate2000 = 42.1

SPECfp_rate_base2000 = 39.9

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	4	139	53.4	4	139	53.4
171.swim	4	586	24.5	4	576	25.0
172.mgrid	4	357	23.4	4	360	23.2
173.applu	4	402	24.2	4	286	34.1
177.mesa	4	96.7	67.2	4	90.0	72.2
178.galgel	4	138	97.5	4	138	97.5
179.art	4	126	95.8	4	126	95.8
183.equake	4	268	22.5	4	208	29.0
187.facerec	4	181	48.8	4	165	53.4
188.ammp	4	218	46.8	4	218	46.8
189.lucas	4	335	27.7	4	335	27.7
191.fma3d	4	322	30.3	4	322	30.3
200.sixtrack	4	190	26.9	4	190	26.9
301.apsi	4	255	47.4	4	258	46.7

Hardware

CPU:	Intel Xeon processor 7041 (3.0GHz, 2x2MB L2, 800MHz bus)
CPU MHz:	3000
FPU:	Integrated
CPU(s) enabled:	4 cores, 2 chips, 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
```

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
```