CFP2000 Result

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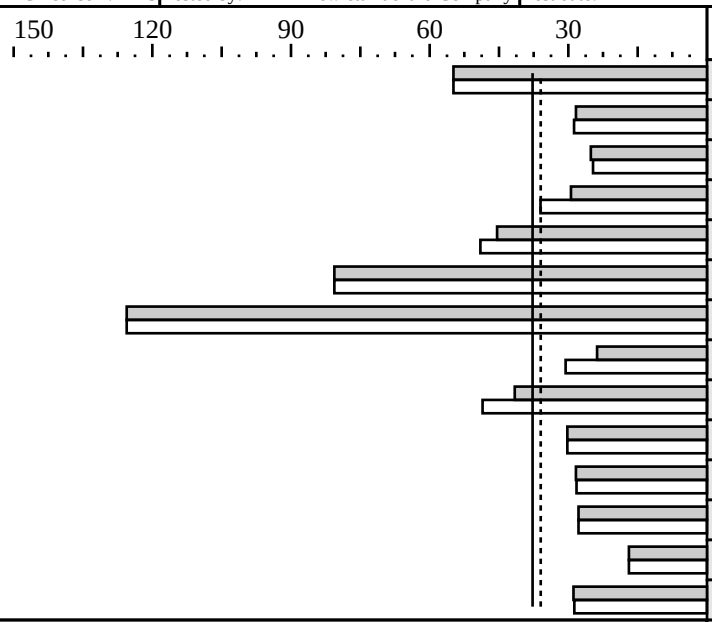
Hewlett-Packard Company

ProLiant DL140 G3 (3.73 GHz, Intel Xeon processor 5080)

SPECfp_rate2000 = 37.7

SPECfp_rate_base2000 = 36.0

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



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	2	67.7	54.9	2	67.7	54.9
171.swim	2	254	28.4	2	250	28.8
172.mgrid	2	166	25.1	2	169	24.7
173.applu	2	166	29.4	2	135	36.0
177.mesa	2	71.5	45.4	2	66.2	49.0
178.galgel	2	83.5	80.6	2	83.5	80.6
179.art	2	48.0	126	2	48.0	126
183.equake	2	127	23.8	2	98.6	30.6
187.facerec	2	106	41.6	2	90.8	48.6
188.ammp	2	169	30.2	2	169	30.2
189.lucas	2	164	28.4	2	164	28.2
191.fma3d	2	175	27.8	2	175	27.8
200.sixtrack	2	151	16.9	2	151	16.9
301.apsi	2	209	28.9	2	210	28.7

Hardware

CPU:	Intel Xeon processor 5080 (3.73GHz, 2x2MB L2, 1066 MHz system 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:	12 K micro-ops I + 16 KB D on chip per core
Secondary Cache:	2 MB I+D on chip per core
L3 Cache:	N/A
Other Cache:	N/A
Memory:	8 GB (8 x 1 GB PC2-5300F)
Disk Subsystem:	1 x 36 GB 15 K SAS
Other Hardware:	

Software

Operating System:	RedHat Enterprise Linux 4.0 Advanced Server for AMD64/EM64T, Update 4 Kernel 2.6.9-42.ELsmp
Compiler:	Intel C++ Compiler for EM64T-based applications, (Version 9.1 Build 20060925) Intel Fortran Compiler for EM64T-based applications, (Version 9.1 Build 20060925) 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
  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 +FDO
    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
```