CFP2000 Result

Copyright ©1999-2005, Standard Performance Evaluation Corporation

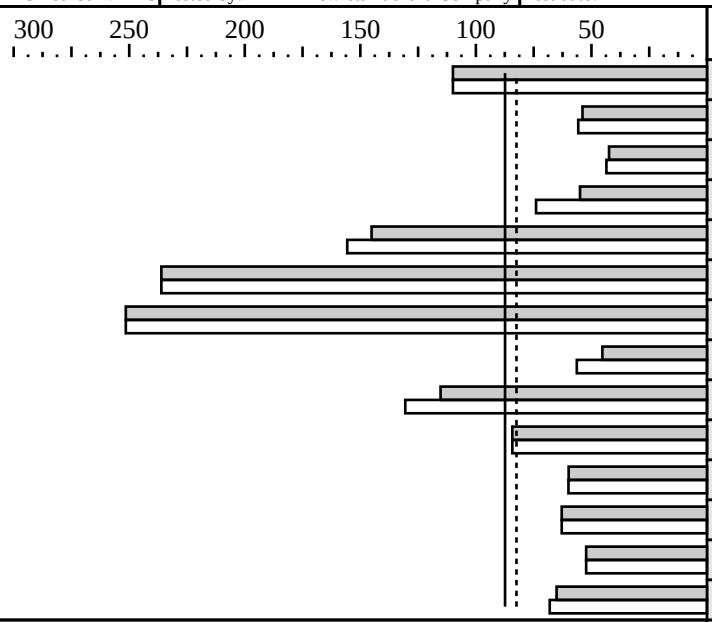
Hewlett-Packard Company

ProLiant DL140 G3 (3.0 GHz, Intel Xeon processor 5160)

SPECfp_rate2000 = 87.4

SPECfp_rate_base2000 = 82.4

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	4	67.5	110	4	67.5	110
171.swim	4	267	53.9	4	258	55.7
172.mgrid	4	197	42.4	4	192	43.5
173.applu	4	177	54.9	4	132	74.0
177.mesa	4	44.8	145	4	41.7	156
178.galgel	4	57.0	236	4	57.0	236
179.art	4	48.0	251	4	48.0	251
183.equake	4	133	45.3	4	107	56.3
187.facerec	4	76.5	115	4	67.5	131
188.ammp	4	121	84.2	4	121	84.2
189.lucas	4	155	59.9	4	155	59.9
191.fma3d	4	155	62.9	4	155	62.9
200.sixtrack	4	97.6	52.3	4	97.6	52.3
301.apsi	4	185	65.1	4	177	68.0

Hardware

CPU:	Intel Xeon processor 5160 (1333 MHz system bus)
CPU MHz:	3000
FPU:	Integrated
CPU(s) enabled:	4 cores, 2 chips, 2 cores/chip
CPU(s) orderable:	1,2 chips
Parallel:	No
Primary Cache:	32 KB I + 32 KB D on chip per core
Secondary Cache:	4 MB I+D on chip per chip
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
```

Copyright ©1999-2005, Standard Performance Evaluation Corporation

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
```