



CFP2000 Result

Copyright ©1999-2007, Standard Performance Evaluation Corporation

Hewlett-Packard Company
ProLiant BL480c (1.86 GHz, Intel Xeon processor E5320)

SPECfp2000 = **2084**
SPECfp_base2000 = **1908**

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	57.4	2787	57.4	2787
171.swim	3100	141	2197	136	2276
172.mgrid	1800	138	1307	106	1698
173.applu	2100	146	1441	110	1907
177.mesa	1400	71.0	1973	66.1	2119
178.galgel	2900	65.4	4434	65.4	4434
179.art	2600	34.8	7461	34.5	7542
183.quake	1300	73.5	1769	61.0	2130
187.facerec	1900	92.1	2064	66.7	2850
188.amp	2200	155	1415	155	1415
189.lucas	2000	121	1654	120	1662
191.fma3d	2100	137	1529	137	1529
200.sixtrack	1100	154	715	154	715
301.apsi	2600	215	1209	203	1281

Hardware

CPU: Intel Xeon processor E5320 (1.86 GHz, 2x4 MB L2 shared, 1066 MHz bus)
CPU MHz: 1860
FPU: Integrated
CPU(s) enabled: 1 core, 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: 1x72 GB 10K SAS
Other Hardware:

Software

Operating System: SuSE Linux Enterprise Server 10 (x86_64)
Kernel 2.6.16.21-0.8-default
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
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 ©1999-2007, Standard Performance Evaluation Corporation

Hewlett-Packard Company
ProLiant BL480c (1.86 GHz, Intel Xeon processor E5320)

SPECfp2000 = 2084
SPECfp_base2000 = 1908

SPEC license #: 3 | Tested by: Hewlett-Packard Company | Test date: Feb-2007 | Hardware Avail: Jan-2007 | Software Avail: Nov-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:    icc -fast -auto_ilp32 +FDO
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.ammmp: 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
Single user kernel used