



CFP2000 Result

Copyright ©1999-2005, Standard Performance Evaluation Corporation

Hewlett-Packard Company
ProLiant ML570 G4 (3.0GHz, Intel Xeon processor 7041)

SPECfp2000 = **1606**
SPECfp_base2000 = **1544**

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	61.0	2622	61.0	2622
171.swim	3100	157	1976	153	2026
172.mgrid	1800	135	1334	140	1288
173.applu	2100	156	1345	134	1572
177.mesa	1400	94.1	1489	87.4	1602
178.galgel	2900	108	2676	108	2676
179.art	2600	55.5	4689	55.5	4689
183.earth	1300	86.0	1511	68.1	1908
187.facerec	1900	149	1275	131	1453
188.amp	2200	204	1081	204	1081
189.lucas	2000	153	1307	154	1300
191.fma3d	2100	153	1375	153	1375
200.sixtrack	1100	188	586	188	586
301.apsi	2600	225	1154	232	1121

Hardware

CPU: Intel Xeon processor 7041 (3.0GHz, 2x2MB L2, 800MHz bus)
CPU MHz: 3000
FPU: Integrated
CPU(s) enabled: 1 core, 1 chip, 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-default
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
```



CFP2000 Result

Copyright ©1999-2005, Standard Performance Evaluation Corporation

Hewlett-Packard Company
ProLiant ML570 G4 (3.0GHz, Intel Xeon processor 7041)

SPECfp2000 = 1606
SPECfp_base2000 = 1544

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