CFP2000 Result

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Hewlett-Packard Company

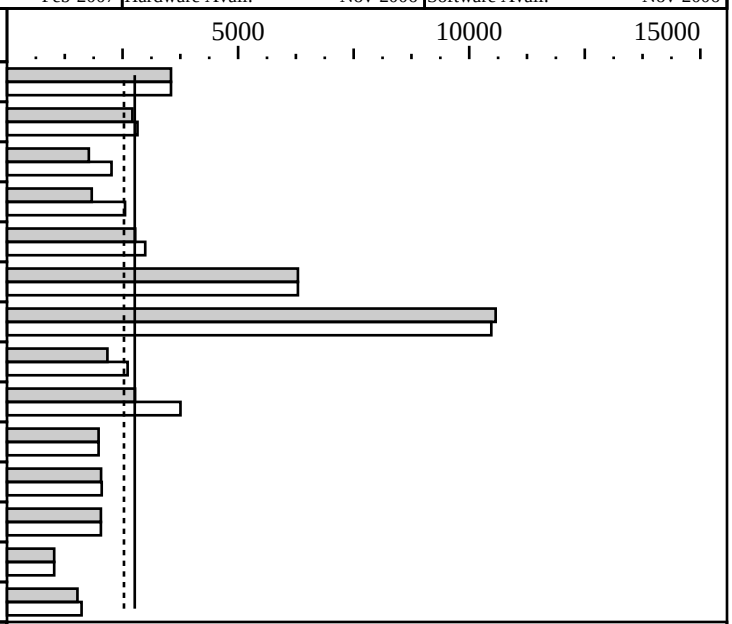
ProLiant ML370 G5 (2.66GHz, Intel Xeon processor X5355)

SPECfp2000 = 2764

SPECfp_base2000 = 2531

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	45.1	3548	45.1	3548
171.swim	3100	114	2712	110	2823
172.mgrid	1800	102	1770	79.6	2262
173.applu	2100	115	1833	82.2	2554
177.mesa	1400	50.5	2774	46.8	2991
178.galgel	2900	46.1	6294	46.1	6294
179.art	2600	24.6	10572	24.8	10478
183.equake	1300	59.8	2172	49.8	2610
187.facerec	1900	68.6	2770	50.6	3753
188.ammp	2200	111	1982	111	1982
189.lucas	2000	98.3	2035	97.6	2049
191.fma3d	2100	103	2031	103	2031
200.sixtrack	1100	108	1021	108	1021
301.apsi	2600	171	1524	161	1613



Hardware

CPU:	Intel Xeon processor X5355 (2.66GHz, 2x4MB L2 shared, 1333MHz bus)
CPU MHz:	2666
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:	8 GB (4x2 GB PC2-5300F CL5)
Disk Subsystem:	2x72GB 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:	Default

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:      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.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
  Power Regulator set to Static High
  Adjacent Sector Prefetch disabled
Other Configuration Notes
  Taskset utility used to bind process to CPU(s)
  "ulimit -s unlimited" set
  Single processor kernel used
```