CFP2000 Result

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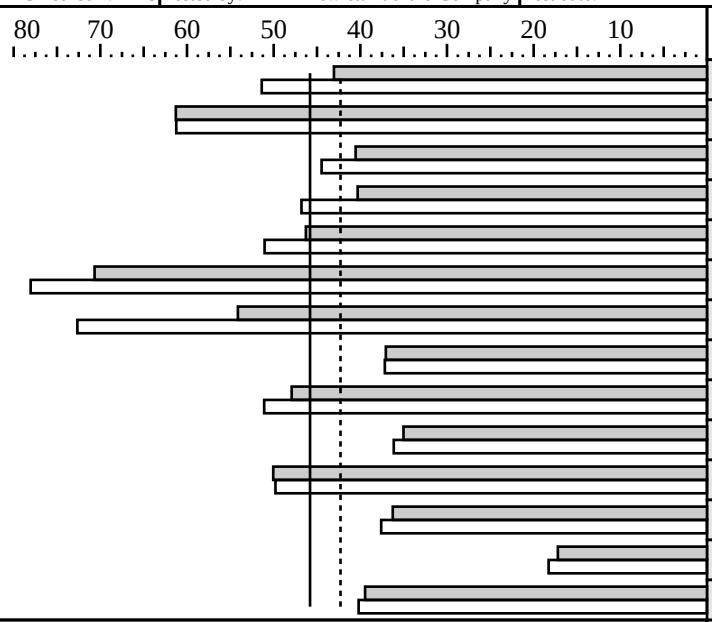
Hewlett-Packard Company

ProLiant BL25p (AMD Opteron (TM) 252)

SPECfp_rate2000 = 45.8

SPECfp_rate_base2000 = 42.3

SPEC license #: 3 | Tested by: Hewlett-Packard Company | Test date: Jan-2005 | Hardware Avail: Feb-2005 | Software Avail: Jan-2005



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	2	86.2	43.0	2	72.3	51.4
171.swim	2	117	61.3	2	117	61.2
172.mgrid	2	103	40.5	2	93.9	44.5
173.applu	2	121	40.3	2	104	46.8
177.mesa	2	70.2	46.3	2	63.6	51.0
178.galgel	2	95.2	70.7	2	86.2	78.0
179.art	2	111	54.1	2	83.0	72.6
183.equake	2	81.4	37.1	2	81.1	37.2
187.facerec	2	92.0	47.9	2	86.3	51.1
188.ammp	2	146	35.0	2	141	36.1
189.lucas	2	92.7	50.0	2	93.2	49.8
191.fma3d	2	134	36.3	2	130	37.6
200.sixtrack	2	148	17.2	2	140	18.3
301.apsi	2	153	39.5	2	150	40.2

Hardware

CPU:	AMD Opteron (TM) 252
CPU MHz:	2600
FPU:	Integrated
CPU(s) enabled:	2 cores, 2 chips, 1 core/chip
CPU(s) orderable:	1,2
Parallel:	No
Primary Cache:	64KBI + 64KBD on chip
Secondary Cache:	1024KB(I+D) on chip
L3 Cache:	N/A
Other Cache:	N/A
Memory:	8x2048MB PC3200 DDR 400
Disk Subsystem:	2x18.2GB SCSI
Other Hardware:	

Software

Operating System:	SuSE Linux Enterprise Server 9 for AMD64 SuSE kernel 2.6.5-7.97-smp
Compiler:	PathScale EKO Compiler Suite, Release 1.4 AMD Core Math Library 2.5.1
File System:	Linux/ext3
System State:	Multi-user run level 3

Notes/Tuning Information

```
+FDO: PASS1= -fb_create fbdata  PASS2= -fb_opt fbdata
+ACML: Linked with AMD Core Math Library
Base tuning for C programs: -Ofast -WOPT:mem_opnds=on +FDO
Base tuning for FORTRAN programs: -Ofast -LNO:fusion=2 -OPT:fast_complex
Portability flags:
  178.galgel:    -fixedform
Peak tuning:
  168.wupwise:   -Ofast -LNO:prefetch_ahead=5:prefetch=3
                -OPT:unroll_times_max=8:unroll_size=128:IEEE_NaN_Inf=off:ro=3 -TENV:X=4
                +FDO
    loader:      -IPA:space=1000:linear=on:plimit=50000:callee_limit=5000
                -INLINE:aggressive=on
  171.swim:      -Ofast -LNO:fusion=2
  172.mgrid:     -O3 -LNO:fusion=2:blocking=off
                -OPT:Ofast:unroll_times_max=8:unroll_size=256:ro=3 -CG:gcm=off:cflow=off
  173.applu:     -Ofast -CG:local_fwd_sched=on
                -LNO:fusion=2:fission=2:full_unroll_size=10000:prefetch=3
```

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Notes/Tuning Information (Continued)

```
                -OPT:ro=3 -TENV:X=3 -WOPT:val=2
  177.mesa:     -O2 -ipa -OPT:Ofast -fno-math-errno -CG:local_fwd_sched=on +FDO
  178.galgel:   -Ofast -OPT:fast_complex -CG:use_movlpd=on +ACML
  179.art:      -O3 -OPT:ro=2:div_split=on:alias=typed -fno-math-errno -m32 +FDO
  183.equake:   -Ofast -WOPT:mem_opnds=on +FDO
    Note:      The configuration file contains peak optimization flags for 183.equake that are
                not invoked due to a syntax error. The options invoked during compilation
                are correctly described in the notes above.
  187.facerec:  -Ofast -OPT:treeheight=on:IEEE_NaN_Inf=off:ro=3 -CG:load_exe=0
                -LNO:fusion=2 +FDO
    loader:     -IPA:plimit=1800
  188.ammp:     -O3 -OPT:alias=disjoint:unroll_times_max=8:Ofast:ro=3
                -fno-math-errno -TENV:X=4 -LNO:prefetch=0 +FDO
  189.lucas:    -Ofast -CG:local_fwd_sched=on -LNO:fusion=2 +FDO
  191.fma3d:    -O2 -ipa -CG:load_exe=1 -OPT:Ofast:IEEE_arith=3:ro=3
                -WOPT:mem_opnds=on:retype_expr=on +FDO
    loader:     -IPA:pu_reorder=1
  200.sixtrack: -Ofast -CG:load_exe=1 +FDO
  301.apsi:     -Ofast -TENV:X=4 -LNO:fusion=2:prefetch=0
BIOS Configuration Notes
  Node Interleaving is Disabled
```