CFP2000 Result

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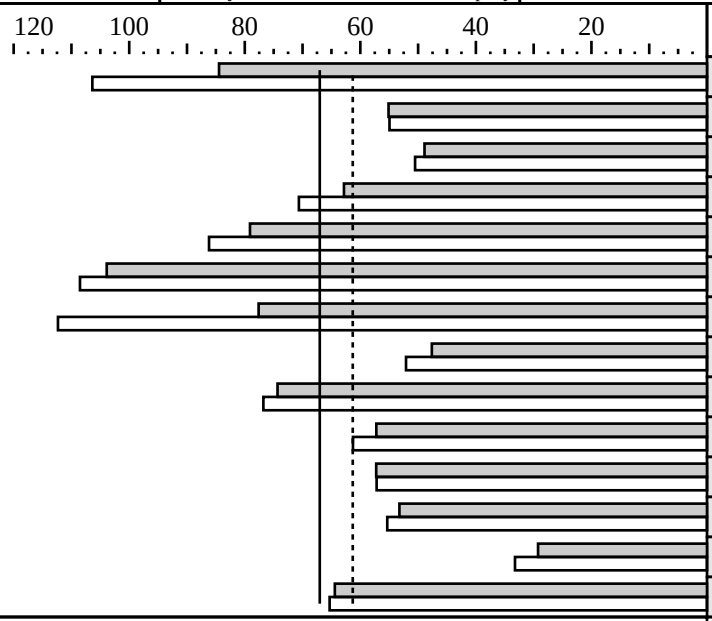
Hewlett-Packard Company

ProLiant DL585 (AMD Opteron (TM) 875)

SPECfp_rate2000 = 67.0

SPECfp_rate_base2000 = 61.3

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



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	4	87.9	84.5	4	69.8	106
171.swim	4	261	55.1	4	262	55.0
172.mgrid	4	171	48.9	4	165	50.5
173.applu	4	155	62.8	4	138	70.6
177.mesa	4	82.1	79.1	4	75.4	86.2
178.galgel	4	130	104	4	124	109
179.art	4	155	77.6	4	107	112
183.equake	4	127	47.6	4	116	52.1
187.facerec	4	119	74.3	4	115	76.8
188.ammp	4	178	57.2	4	167	61.3
189.lucas	4	162	57.3	4	162	57.2
191.fma3d	4	183	53.2	4	176	55.3
200.sixtrack	4	175	29.2	4	154	33.2
301.apsi	4	187	64.4	4	185	65.3

Hardware

CPU:	AMD Opteron (TM) 875
CPU MHz:	2200
FPU:	Integrated
CPU(s) enabled:	4 cores, 2 chips, 2 cores/chip
CPU(s) orderable:	2,4
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 CL3.0
Disk Subsystem:	1x36.4GB 15K Ultra320 SCSI
Other Hardware:	

Software

Operating System:	SuSE Linux Enterprise Server 9 (x86_64) SP 1 SuSE kernel 2.6.5-7.139-smp
Compiler:	PathScale EKO Compiler Suite, Release 2.0 AMD Core Math Library 2.5.1
File System:	Linux/ext2
System State:	Multi-user run level 3

Notes/Tuning Information

```
+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
                -OPT:ro=3 -TENV:X=3 -WOPT:val=2
```

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Notes/Tuning Information (Continued)

```
    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 -CG:local_fwd_sched=on -m32
    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
```