CFP2000 Result

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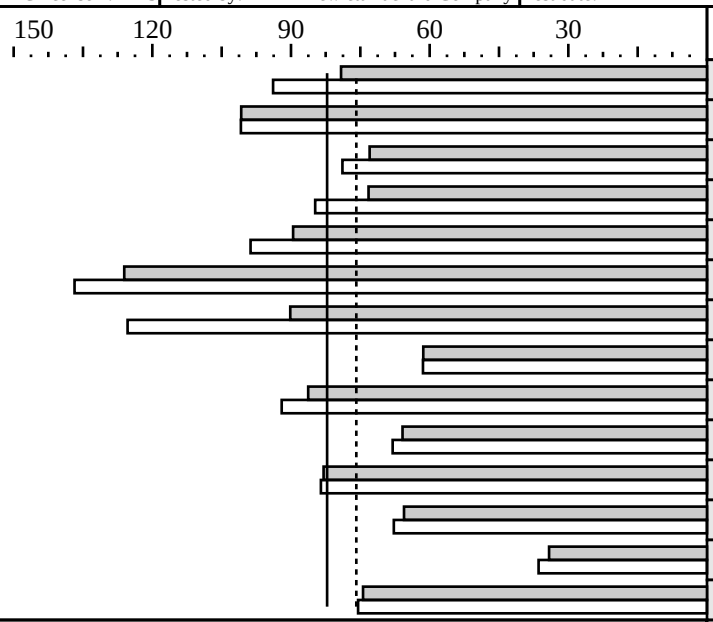
Hewlett-Packard Company

ProLiant DL585 (AMD Opteron (TM) 852)

SPECfp_rate2000 = 82.2

SPECfp_rate_base2000 = 75.9

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	4	93.8	79.2	4	79.1	93.9
171.swim	4	143	101	4	143	101
172.mgrid	4	114	73.0	4	106	78.9
173.applu	4	133	73.2	4	115	84.8
177.mesa	4	72.5	89.5	4	65.8	98.7
178.galgel	4	107	126	4	98.3	137
179.art	4	134	90.2	4	96.2	125
183.equake	4	98.3	61.4	4	98.2	61.4
187.facerec	4	102	86.3	4	95.8	92.0
188.ammp	4	155	65.9	4	150	68.0
189.lucas	4	112	82.9	4	111	83.5
191.fma3d	4	149	65.5	4	144	67.8
200.sixtrack	4	149	34.2	4	140	36.4
301.apsi	4	162	74.4	4	160	75.5

Hardware

CPU:	AMD Opteron (TM) 852
CPU MHz:	2600
FPU:	Integrated
CPU(s) enabled:	4 cores, 4 chips, 1 core/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:	16x2048MB PC2700 CL2.5
Disk Subsystem:	1x36.4GB 15K Ultra320 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/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 +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
```