CFP2000 Result

Copyright ©1999-2004, Standard Performance Evaluation Corporation

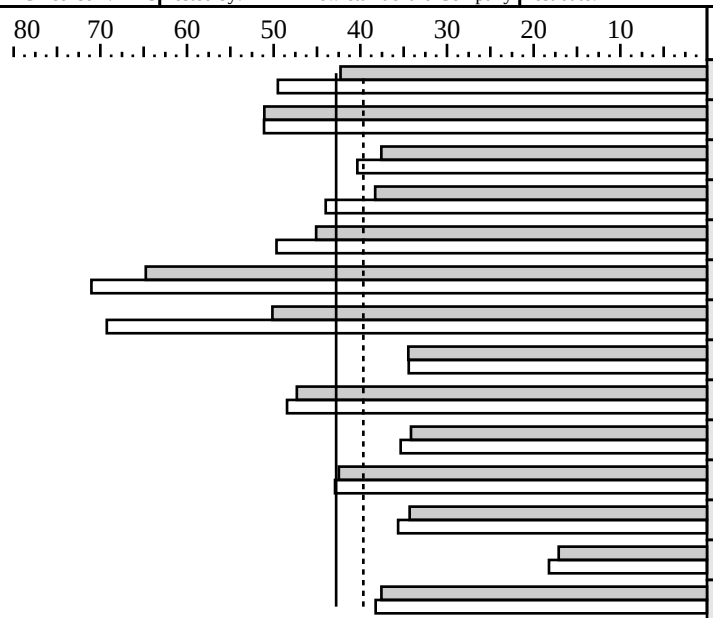
Hewlett-Packard Company

ProLiant DL585 (AMD Opteron (TM) 852)

SPECfp_rate2000 = 42.8

SPECfp_rate_base2000 = 39.7

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	87.8	42.3	2	75.0	49.5
171.swim	2	141	51.1	2	141	51.1
172.mgrid	2	111	37.6	2	104	40.3
173.applu	2	127	38.3	2	111	44.0
177.mesa	2	72.0	45.1	2	65.4	49.7
178.galgel	2	104	64.8	2	94.7	71.0
179.art	2	120	50.1	2	87.1	69.3
183.equake	2	87.5	34.5	2	87.6	34.4
187.facerec	2	93.1	47.3	2	91.0	48.5
188.ammp	2	149	34.2	2	144	35.3
189.lucas	2	109	42.5	2	108	42.9
191.fma3d	2	142	34.3	2	137	35.6
200.sixtrack	2	149	17.1	2	140	18.2
301.apsi	2	161	37.6	2	158	38.2

Hardware

CPU:	AMD Opteron (TM) 852
CPU MHz:	2600
FPU:	Integrated
CPU(s) enabled:	2 cores, 2 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:	8x2048MB 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
```

Copyright ©1999-2004, Standard Performance Evaluation Corporation

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
```