CFP2000 Result

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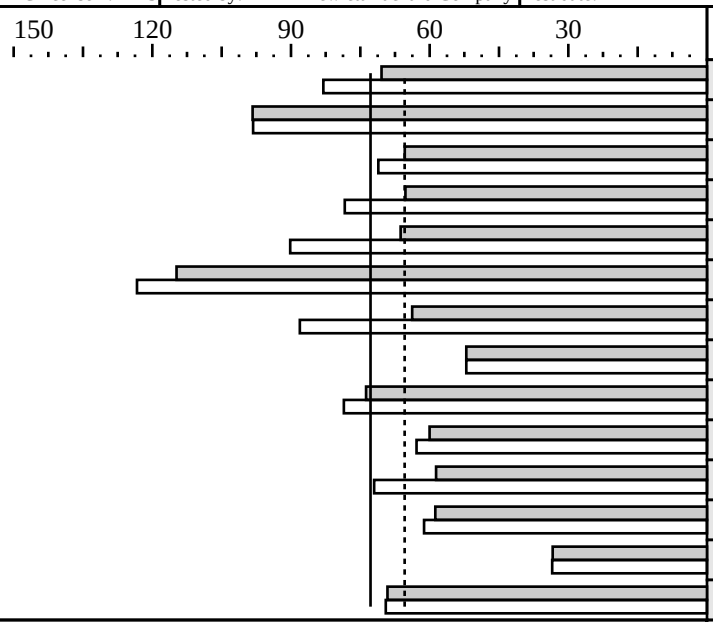
Hewlett-Packard Company

ProLiant DL585 (AMD Opteron (TM) 850)

SPECfp_rate2000 = 72.8

SPECfp_rate_base2000 = 65.4

SPEC license #: 3 | Tested by: Hewlett-Packard Company | Test date: Sep-2004 | Hardware Avail: Sep-2004 | Software Avail: Sep-2004



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	4	105	70.4	4	89.4	83.0
171.swim	4	146	98.3	4	146	98.2
172.mgrid	4	128	65.4	4	117	71.1
173.applu	4	149	65.2	4	124	78.4
177.mesa	4	98.0	66.3	4	72.0	90.2
178.galgel	4	117	115	4	109	123
179.art	4	189	63.8	4	137	88.1
183.equake	4	116	52.1	4	116	52.1
187.facerec	4	120	73.8	4	112	78.6
188.ammp	4	170	60.0	4	162	62.8
189.lucas	4	158	58.6	4	129	72.0
191.fma3d	4	166	58.8	4	159	61.2
200.sixtrack	4	153	33.4	4	152	33.5
301.apsi	4	175	69.1	4	174	69.5

Hardware

CPU:	AMD Opteron (TM) 850
CPU MHz:	2400
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 8 for AMD64 (SP3) SuSE kernel 2.4.21-143-numa
Compiler:	PathScale EKO Compiler Suite, Release 1.3 AMD Core Math Library 2.0
File System:	Linux/ext2
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
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:prefetch=2
  172.mgrid:     -O3 -LNO:fusion=2:blocking=off:prefetch=2
                -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:load_exe=0:use_movlpd=on +ACML
  179.art:      -O3 -OPT:ro=2:div_split=on:alias=typed -fno-math-errno -m32 +FDO
  183.equake:   basepeak=yes
  187.facerec:  -Ofast -OPT:treeheight=on:IEEE_NaN_Inf=off:ro=3 -CG:load_exe=0
                -LNO:fusion=2:prefetch=0 +FDO -IPA:plimit=1800
  188.ammp:     -O3 -OPT:alias=disjoint:unroll_times_max=8:Ofast:ro=3
                -LNO:prefetch=0 -fno-math-errno -TENV:X=4 +FDO
  189.lucas:    -Ofast -CG:prefetch=off:load_exe=2:local_fwd_sched
                -TENV:X=4 -WOPT:retype_expr=on +FDO
  191.fma3d:    -O2 -ipa -WOPT:mem_opnds=on:retype_expr=on
                -OPT:Ofast:IEEE_arith=3:ro=3 +FDO -IPA:pu_reorder=1
  200.sixtrack: -Ofast +FDO
  301.apsi:     -Ofast -TENV:X=4 -LNO:fusion=2:prefetch=0
BIOS Configuration Notes
  Node Interleaving is Disabled
Other Configuration Notes
  Taskset utility used to bind process to CPU(s)
```