



CFP2000 Result

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Hewlett-Packard Company
ProLiant DL385 (AMD Opteron (TM) 252)

SPECfp_rate2000 = 22.6
SPECfp_rate_base2000 = 21.0

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	1	83.3	22.3	1	70.9	26.2
171.swim	1	125	28.8	1	125	28.8
172.mgrid	1	105	19.8	1	96.7	21.6
173.applu	1	122	20.0	1	106	23.0
177.mesa	1	70.0	23.2	1	64.0	25.4
178.galgel	1	97.0	34.7	1	88.2	38.1
179.art	1	111	27.2	1	80.7	37.4
183.equake	1	80.4	18.8	1	80.1	18.8
187.facerec	1	88.7	24.9	1	86.6	25.4
188.amp	1	146	17.5	1	140	18.2
189.lucas	1	99.8	23.2	1	99.4	23.3
191.fma3d	1	135	18.1	1	130	18.8
200.sixtrack	1	149	8.55	1	140	9.12
301.apsi	1	156	19.4	1	153	19.7

Hardware

CPU: AMD Opteron (TM) 252
 CPU MHz: 2600
 FPU: Integrated
 CPU(s) enabled: 1 core, 1 chip, 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: 1x36.4GB 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

```
+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)

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-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_movlpad=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
loader: -LNO:fusion=2 +FDO
188.ammp: -IPA:plimit=1800
-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

```