



CFP2000 Result

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Hewlett-Packard Company
ProLiant DL145 (AMD Opteron (TM) 250)

SPECfp_rate2000 = 19.7
SPECfp_rate_base2000 = 17.8

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	1	94.6	19.6	1	80.4	23.1
171.swim	1	142	25.3	1	143	25.2
172.mgrid	1	120	17.4	1	109	19.1
173.applu	1	136	17.9	1	116	21.0
177.mesa	1	96.0	16.9	1	69.9	23.2
178.galgel	1	108	31.0	1	104	32.4
179.art	1	165	18.3	1	115	26.3
183.equake	1	95.3	15.8	1	95.3	15.8
187.facerec	1	106	20.8	1	98.4	22.4
188.amp	1	161	15.8	1	154	16.6
189.lucas	1	135	17.1	1	118	19.6
191.fma3d	1	151	16.1	1	145	16.7
200.sixtrack	1	152	8.41	1	152	8.41
301.apsi	1	169	17.8	1	168	18.0

Hardware

CPU: AMD Opteron (TM) 250
 CPU MHz: 2400
 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: 4x2048MB PC2700 CL2.5
 Disk Subsystem: 1x40GB ATA100
 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)

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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: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.ammmp: -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
-Qoption,f,-ip_ninl_max_total_stats=3500 +FDO ONESTEP=yes
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)