



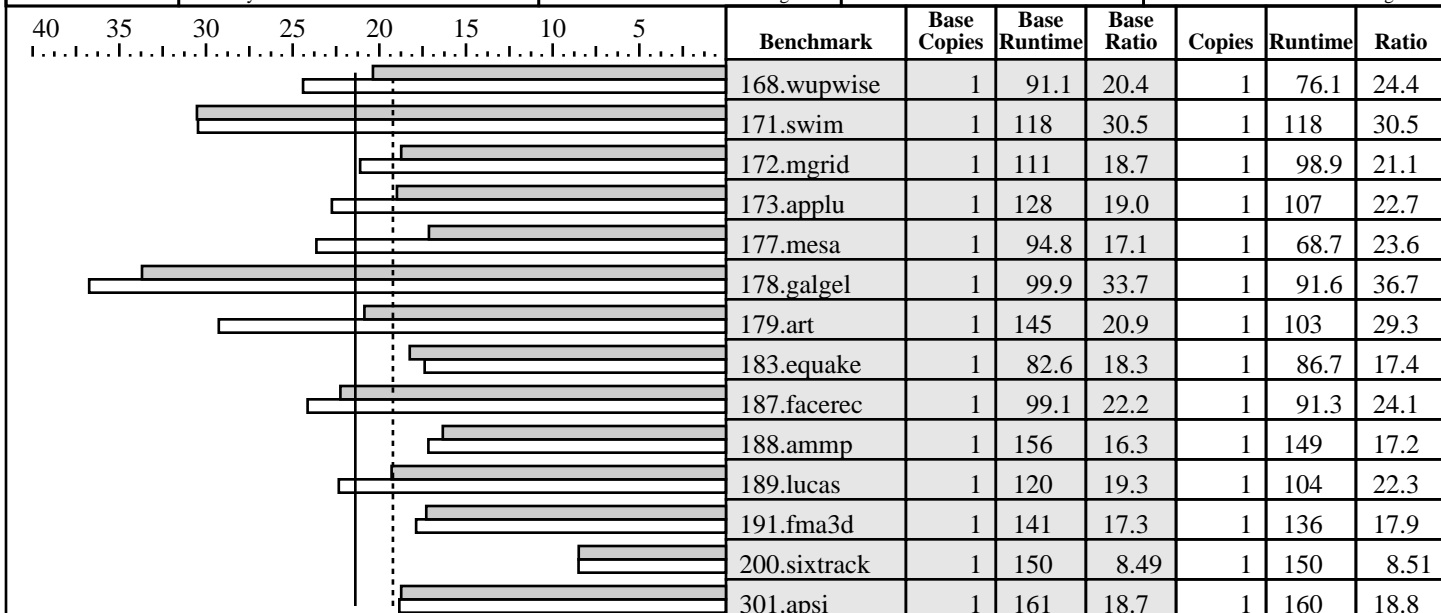
CFP2000 Result

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Advanced Micro Devices
Tyan Thunder K8QS Pro (S4882), AMD Opteron (TM) 850

SPECfp_rate2000 = 21.4
SPECfp_rate_base2000 = 19.2

SPEC license #: 49 | Tested by: Advanced Micro Devices | Test date: Aug-2004 | Hardware Avail: Jul-2004 | Software Avail: Aug-2004



Hardware

CPU: AMD Opteron (TM) 850
 CPU MHz: 2400
 FPU: Integrated
 CPU(s) enabled: 1 core, 1 chip, 1 core/chip
 CPU(s) orderable: 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: 4x512 MB PC3200 CL3.0 ECC Registered
 Disk Subsystem: SCSI, Seagate Cheetah ST336753LW
 Ultra 320, 15k rpm
 Other Hardware: None

Software

Operating System: SuSE Linux Enterprise Sever 8 for AMD64 (SP3)
 SuSE kernel 2.4.21-143-numa
 Compiler: PathScale EKO Compiler Suite, Release 1.3
 File System: Linux/ext3
 System State: Multi-user SuSE Run level 3

Notes/Tuning Information

Tested by Advanced Micro Devices

+FDO: PASS1= -fb_create fbdata PASS2= -fb_opt fbdata
+ACML is linking with AMD Core Math Library

Baseline optimization

C programs: -Ofast -WOPT:mem_opnds=on +FDO
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
loader: -IPA:space=1000:linear=on:plimit=50000:callee_limit=5000
-INLINE:aggressive=on



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Notes/Tuning Information (Continued)

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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
           -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: -Ofast -WOPT:mem_opnds=on -CG:local_fwd_sched=on
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.amp: -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 rev. 1.00

```

All memory slots populated on CPU0

The tested system can be assembled using an SSI MEB footprint case, such as the CCSI RC0352 3U rackmount case, and a Tyan recommended 650W EPS-12V power supply, such as the Enermax 660W power supply (PEG851AX-VH)