



CFP2000 Result

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Fujitsu Siemens Computers
PRIMERGY BX630, AMD Opteron (TM) 254

SPECfp_rate2000 = 26.6
SPECfp_rate_base2000 = 24.3

SPEC license #: 22 Tested by: Fujitsu Siemens Computers Test date: Jan-2006 Hardware Avail: Feb-2006 Software Avail: Sep-2005

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	1	53.4	34.8	1	49.9	37.2
171.swim	1	118	30.5	1	114	31.5
172.mgrid	1	97.8	21.3	1	89.8	23.3
173.applu	1	96.7	25.2	1	84.5	28.8
177.mesa	1	62.6	25.9	1	58.6	27.7
178.galgel	1	84.5	39.8	1	75.5	44.6
179.art	1	92.9	32.5	1	67.3	44.8
183.quake	1	74.3	20.3	1	67.2	22.4
187.facerec	1	72.1	30.5	1	68.7	32.1
188.amp	1	132	19.3	1	125	20.4
189.lucas	1	95.6	24.3	1	83.9	27.7
191.fma3d	1	120	20.2	1	120	20.3
200.sixtrack	1	118	10.8	1	113	11.3
301.apsi	1	147	20.5	1	137	22.1

Hardware

CPU: AMD Opteron (TM) 254 processor (2.80 GHz)
CPU MHz: 2800
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, per core
Secondary Cache: 1024KB (I+D) on chip, per core
L3 Cache: N/A
Other Cache: N/A
Memory: 4x2048MB DDR-RAM PC3200R CL3-3-3
Disk Subsystem: Western Digital WD2500 (SATA, 7.2krpm)
Other Hardware: None

Software

Operating System: SuSE Linux Enterprise Server 9 (x86_64) SP 2
SuSE Kernel 2.6.5-7.191-smp
Compiler: PathScale EKOPath(TM) Compiler Suite, Release 2.2.1 (for C and Fortran)
AMD Core Mathematical Library (ACML), Version 2.6.0
File System: Linux/reiserfs
System State: Multi-user run level 3

Notes/Tuning Information

GENERAL

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

Portability flags

178.galgel: -fixedform

Base tuning flags

for Fortran programs: -Ofast -LNO:fusion=2 -OPT:fast_complex=on +FDO
for C programs: -Ofast -WOPT:mem_opnds=on +FDO

Peak tuning flags

168.wupwise: -Ofast -LNO:prefetchAhead=5:prefetch=3
-OPT:unroll_times_max=8:unroll_size=128:IEEE_NaN_Inf=off:ro=3
-IPA:linear=on:plimit=50000:callee_limit=5000 -INLINE:aggressive=on
171.swim: -Ofast -CG:local_fwd_sched=on -LNO:fusion=2 -m3dnow
172.mgrid: -Ofast -CG:gcm=off -OPT:IEEE_a=3:unroll_size=200



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Notes/Tuning Information (Continued)

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-LNO:fusion=2:fission=1:blocking=off:prefetch Ahead=2
-WOPT:mem_opnds=on:aggstr=0
173.applu: -Ofast -CG:local_fwd_sched=on -OPT:ro=3 -TENV:X=3
-LNO:fusion=2:fission=2:full_unroll_size=10000 +FDO
177.mesa: -O2 -ipa -OPT:Ofast -fno-math-errno -CG:local_fwd_sched=on
-WOPT:mem_opnds=on +FDO
178.galgel: -Ofast -OPT:fast_complex=on +ACML +FDO
179.art: -O3 -OPT:Ofast -fno-math-errno -mno-sse2 -m32
183.equake: -Ofast -CG:load_exe=2 -WOPT:mem_opnds=on -m32 +FDO
187.facerec: -Ofast -LNO:fusion=2
-OPT:fast_complex=on:IEEE_NaN_Inf=off:unroll_size=0 +FDO
188.ammp: -O3 -OPT:alias=disjoint:unroll_times_max=8:Ofast:ro=3
-fno-math-errno -TENV:X=4 +FDO
189.lucas: -Ofast -OPT:ro=3:fast_nint=off:unroll_size=256
-WOPT:mem_opnds=on +FDO
191.fma3d: -O2 -ipa -CG:load_exe=1 -OPT:Ofast:IEEE_arith=3:ro=3
-WOPT:mem_opnds=on:retype_expr=on -IPA:pu_reorder=1 +FDO
200.sixtrack: -O3 -OPT:Ofast:Olimit=6000:early_intrinsics=on
-fno-math-errno -CG:load_exe=1 +FDO
301.apsi: -Ofast -CG:load_exe=0 -LNO:prefetch=0:simd=2

```

BIOS settings: Memory timing=1T
DRAM Bank Interleave=AUTO

This result was measured with 64-bit binaries using the 64-bit version of the operating system.

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