



CFP2000 Result

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Fujitsu Siemens Computers
PRIMERGY BX630, AMD Opteron (TM) 252

SPECfp2000 = 2192
SPECfp_base2000 = 2000

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	1000 2000 3000 4000			
168.wupwise	1600	56.4	2836	52.5	3050	[Bar chart showing ratio 3050]			
171.swim	3100	119	2600	115	2688	[Bar chart showing ratio 2688]			
172.mgrid	1800	103	1753	93.1	1933	[Bar chart showing ratio 1933]			
173.applu	2100	101	2079	89.2	2355	[Bar chart showing ratio 2355]			
177.mesa	1400	67.1	2085	62.9	2227	[Bar chart showing ratio 2227]			
178.galgel	2900	88.0	3294	79.1	3666	[Bar chart showing ratio 3666]			
179.art	2600	96.5	2695	70.4	3692	[Bar chart showing ratio 3692]			
183.quake	1300	76.2	1707	69.1	1881	[Bar chart showing ratio 1881]			
187.facerec	1900	75.4	2521	72.0	2640	[Bar chart showing ratio 2640]			
188.amp	2200	141	1563	133	1657	[Bar chart showing ratio 1657]			
189.lucas	2000	97.5	2052	85.2	2348	[Bar chart showing ratio 2348]			
191.fma3d	2100	127	1660	126	1662	[Bar chart showing ratio 1662]			
200.sixtrack	1100	127	865	121	909	[Bar chart showing ratio 909]			
301.apsi	2600	156	1668	145	1796	[Bar chart showing ratio 1796]			

Hardware

CPU: AMD Opteron (TM) 252 processor (2.60 GHz)
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, 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:prefetch Ahead=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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