



CFP2000 Result

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Fujitsu Siemens Computers
PRIMERGY RX220, AMD Opteron (TM) 250

SPECfp2000 = **2076**
SPECfp_base2000 = **1891**

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	1000 2000 3000 4000			
168.wupwise	1600	63.1	2537	55.3	2892	[Bar chart showing ratio 2892]			
171.swim	3100	121	2560	118	2624	[Bar chart showing ratio 2624]			
172.mgrid	1800	108	1669	97.2	1851	[Bar chart showing ratio 1851]			
173.applu	2100	107	1969	94.9	2213	[Bar chart showing ratio 2213]			
177.mesa	1400	71.7	1952	67.2	2083	[Bar chart showing ratio 2083]			
178.galgel	2900	92.8	3127	82.6	3511	[Bar chart showing ratio 3511]			
179.art	2600	102	2546	72.0	3611	[Bar chart showing ratio 3611]			
183.earth	1300	78.9	1649	72.4	1796	[Bar chart showing ratio 1796]			
187.facerec	1900	76.4	2486	76.9	2470	[Bar chart showing ratio 2470]			
188.amp	2200	154	1427	143	1535	[Bar chart showing ratio 1535]			
189.lucas	2000	101	1990	88.4	2262	[Bar chart showing ratio 2262]			
191.fma3d	2100	135	1558	134	1572	[Bar chart showing ratio 1572]			
200.sixtrack	1100	137	803	131	841	[Bar chart showing ratio 841]			
301.apsi	2600	168	1545	158	1648	[Bar chart showing ratio 1648]			

Hardware

CPU: AMD Opteron (TM) 250 processor (2.40 GHz)
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 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 2.3 (for C and Fortran)
AMD Core Mathematical Library (ACML), Version 3.0.0
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:prefetch=3 +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
AMD Core Math Library
+ACML means -L<acml-install-dir>/pathscale64/lib -lacml,
which causes linking with AMD Core Math Library
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=

```

MYMASK=`printf '0x%x' \\${(1<<\\$SPECUSERNUM)} `; /usr/bin/taskset \\$MYMASK \$command:
Taskset utility used to bind process to CPU(s)

BIOS settings: Memory timing=1T

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

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