CFP2000 Result

Copyright ©1999-2005, Standard Performance Evaluation Corporation

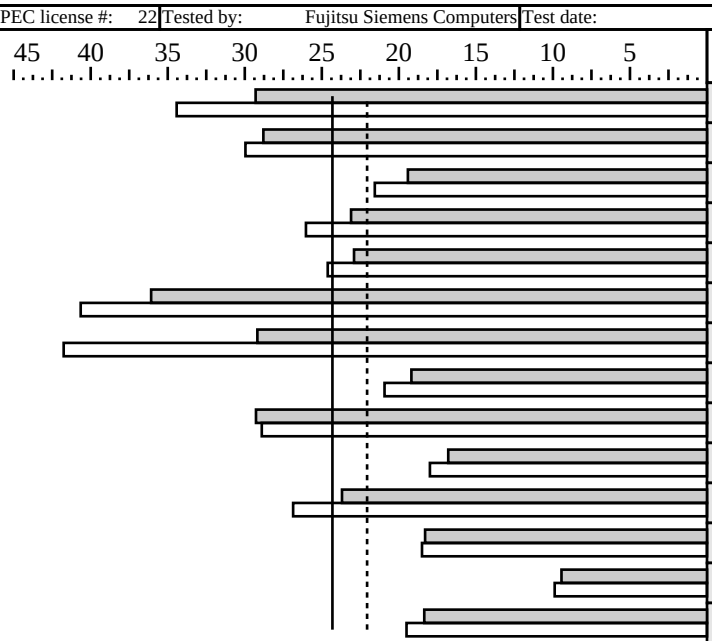
Fujitsu Siemens Computers

CELSIUS V830, Opteron (TM) 280, Linux 64-bit

SPECfp_rate2000 = 24.3

SPECfp_rate_base2000 = 22.1

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



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	1	63.4	29.3	1	53.9	34.4
171.swim	1	125	28.8	1	120	30.0
172.mgrid	1	108	19.4	1	96.8	21.6
173.applu	1	105	23.1	1	93.6	26.0
177.mesa	1	70.9	22.9	1	66.0	24.6
178.galgel	1	93.2	36.1	1	82.8	40.6
179.art	1	103	29.2	1	72.2	41.8
183.equake	1	78.6	19.2	1	72.1	20.9
187.facerec	1	75.3	29.3	1	76.3	28.9
188.ammp	1	152	16.8	1	142	18.0
189.lucas	1	97.9	23.7	1	86.4	26.9
191.fma3d	1	133	18.3	1	132	18.5
200.sixtrack	1	135	9.44	1	129	9.89
301.apsi	1	164	18.4	1	155	19.5

Hardware

CPU:	AMD Opteron 280
CPU MHz:	2400
FPU:	Integrated
CPU(s) enabled:	2 cores, 1 chip, 2 cores/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:	4 x 512 MB PC3200 CL3-3-3 DDR SDRAM
Disk Subsystem:	SCSI U320
Other Hardware:	None

Software

Operating System:	SLES 9 with SP3 (AMD64) - kernel 2.6.5-7.244-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 SuSE Run Level 3

Notes/Tuning Information

```
Portability flags:
   178.galgel: -fixedform

Feedback Optimization:
 +FDO: PASS1=-fb_create fbdata   PASS2=-fb_opt fbdata

AMD Core Math Library
+ACML  means -L<acml-install-dir>/pathscale64/lib -lacml,
        which causes linking with AMD Core Math Library

Baseline Optimization Flags:
   C programs:       -Ofast -WOPT:mem_opnds=on +FDO
   Fortran programs: -Ofast -LNO:fusion=2 -OPT:fast_complex=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
```

Copyright ©1999-2005, Standard Performance Evaluation Corporation

Notes/Tuning Information (Continued)

```
                -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
                -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 RM_SOURCES=lapak.f90
  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 default settings with
Node memory interleave disabled, SRAT enabled
taskset has been used to bind processes to CPUs

For information about Fujitsu Siemens Computers in your country please see:
http://www.fujitsu-siemens.com/countries
```