



CFP2000 Result

Copyright ©1999-2005, Standard Performance Evaluation Corporation

IBM Corporation
IBM System X 3455 (AMD Opteron (TM) 2218)

SPECfp_rate2000 = 88.7
SPECfp_rate_base2000 = 82.7

SPEC license #: 11 | Tested by: IBM Corporation | Test date: Aug-2006 | Hardware Avail: Sep-2006 | Software Avail: Mar-2006

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	4	62.8	118	4	56.9	130
171.swim	4	173	82.9	4	171	84.0
172.mgrid	4	120	69.8	4	114	73.1
173.applu	4	109	89.8	4	98.6	98.8
177.mesa	4	68.1	95.4	4	64.1	101
178.galgel	4	97.9	137	4	98.7	136
179.art	4	113	107	4	79.8	151
183.equake	4	94.2	64.0	4	86.0	70.1
187.facerec	4	81.7	108	4	78.2	113
188.amp	4	145	70.5	4	139	73.5
189.lucas	4	122	76.3	4	114	81.3
191.fma3d	4	134	72.5	4	136	71.6
200.sixtrack	4	127	40.2	4	121	42.1
301.apsi	4	161	75.1	4	152	79.6

Hardware

CPU: AMD Opteron 2218
CPU MHz: 2600
FPU: Integrated
CPU(s) enabled: 4 cores, 2 chips, 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: 8x2GB, PC2-5300
Disk Subsystem: SATA, 80GB 10K RPM
Other Hardware: None

Software

Operating System: SuSE Linux 9.0 SP3 SLES 64 bit Kernel 2.6.5-7.244-smp
Compiler: PathScale EKO Compiler Suite, Release 2.4
PathScale EKOPATH(TM) Compiler Suite, Release 2.4
File System: Linux/reiserfs
System State: Multi-user, run level 3

Notes/Tuning Information

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

Baseline optimization

C programs: -Ofast -WOPT:mem_opnds=on +FDO
Fortran programs: -Ofast -LNO:fusion=2 -OPT:fast_complex=on +FDO
Portability Flags:
178.galgel: -fixedform

Peak Tuning:

168.wupwise: -Ofast -IPA:linear=on -LNO:prefetch Ahead=5:prefetch=3
-OPT:unroll_times_max=8:unroll_size=128:IEEE_NaN_Inf=off:ro=3
171.swim: -Ofast -CG:local_fwd_sched=on -LNO:fusion=2 -m3dnow
172.mgrid: -Ofast -CG:gcm=off -OPT:IEEE_arith=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 +FDO



CFP2000 Result

Copyright ©1999-2005, Standard Performance Evaluation Corporation

IBM Corporation
IBM System X 3455 (AMD Opteron (TM) 2218)

SPECfp_rate2000 = 88.7
SPECfp_rate_base2000 = 82.7

SPEC license #: 11 | Tested by: IBM Corporation | Test date: Aug-2006 | Hardware Avail: Sep-2006 | Software Avail: Mar-2006

Notes/Tuning Information (Continued)

```

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 +FDO
179.art:       -O3 -OPT:Ofast -fno-math-errno -mno-sse2 -m32
183.quake:    -Ofast -CG:load_exe=2 -WOPT:mem_opnds=on -m32 +FDO
187.facerec:  -Ofast -IPA:plimit=1500 -LNO:fusion=2
              -OPT:IEEE_NaN_Inf=off:ro=3:unroll_size=0 +FDO
188.ampp:     -O3 -OPT:alias=disjoint:unroll_times_max=8:Ofast:ro=3
              -GRA:optimize_boundary=on -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:early_intrinsics=on
              -fno-math-errno -CG:load_exe=1 +FDO
301.apsi:     -Ofast -CG:load_exe=0 -LNO:prefetch=0:simd=2

```