



CFP2000 Result

Copyright ©1999-2004, Standard Performance Evaluation Corporation

IBM Corporation
eServer 325, 2.4 GHz AMD Opteron (TM)

SPECfp2000 = 1553
SPECfp_base2000 = 1428

SPEC license #: 11 | Tested by: IBM, Research Triangle Park, NC | Test date: May-2004 | Hardware Avail: May-2004 | Software Avail: May-2004

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	1000 2000 3000 4000			
168.wupwise	1600	102	1571	85.5	1871	[Bar chart showing ratio bars for 168.wupwise]			
171.swim	3100	151	2055	145	2134	[Bar chart showing ratio bars for 171.swim]			
172.mgrid	1800	129	1392	118	1529	[Bar chart showing ratio bars for 172.mgrid]			
173.applu	2100	156	1345	144	1462	[Bar chart showing ratio bars for 173.applu]			
177.mesa	1400	77.6	1804	73.4	1907	[Bar chart showing ratio bars for 177.mesa]			
178.galgel	2900	119	2442	113	2567	[Bar chart showing ratio bars for 178.galgel]			
179.art	2600	175	1483	126	2057	[Bar chart showing ratio bars for 179.art]			
183.earth	1300	97.3	1336	102	1272	[Bar chart showing ratio bars for 183.earth]			
187.facerec	1900	120	1581	104	1833	[Bar chart showing ratio bars for 187.facerec]			
188.amp	2200	174	1262	168	1309	[Bar chart showing ratio bars for 188.amp]			
189.lucas	2000	163	1224	145	1376	[Bar chart showing ratio bars for 189.lucas]			
191.fma3d	2100	159	1322	152	1380	[Bar chart showing ratio bars for 191.fma3d]			
200.sixtrack	1100	164	672	158	695	[Bar chart showing ratio bars for 200.sixtrack]			
301.apsi	2600	203	1281	199	1308	[Bar chart showing ratio bars for 301.apsi]			

Hardware

CPU: AMD Opteron 250
 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: 4x512MB, DDR333
 Disk Subsystem: SCSI, 36GB 10K RPM
 Other Hardware: None

Software

Operating System: SUSE Linux SLES 8.0 64-bit Kernel 2.4.19-249 (SP2)
 Compiler: PathScale EKO Compiler Suite, Release 1.0
 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: pathcc -Ofast -WOPT:mem_opnds=on +FDO
 Fortran: pathf90 -Ofast -LNO:fusion=2
 Portability Flags:
 178.galgel: -fixedform

Peak Tuning:

168.wupwise: -Ofast -LNO:fusion=2:prefetch Ahead=5
 -OPT:unroll_times=8:unroll_size=128:IEEE_NaN_Inf=off:ro=3 -TENV:X=4
 loader: -IPA:space=1000:linear=on:plimit=50000:callee_limit=5000
 -INLINE:aggressive=on
 171.swim: -Ofast -OPT:ro=3 -LNO:fusion=2:prefetch=2
 172.mgrid: -O3 -LNO:fusion=2:blocking=off:ou_max=5:sclrze=off:prefetch=2
 -OPT:Ofast:unroll_times=8:unroll_size=256:ro=3



CFP2000 Result

Copyright ©1999-2004, Standard Performance Evaluation Corporation

IBM Corporation
eServer 325, 2.4 GHz AMD Opteron (TM)

SPECfp2000 = 1553
SPECfp_base2000 = 1428

SPEC license #: 11 | Tested by: IBM, Research Triangle Park, NC | Test date: May-2004 | Hardware Avail: May-2004 | Software Avail: May-2004

Notes/Tuning Information (Continued)

```

-CG:gcm=off:cflow=off
173.applu: -O3 -ipa -OPT:IEEE_arith=1:ro=3:unroll_size=0
          -LNO:fusion=2:interchange=OFF:blocking=OFF:ou_prod_max=10:ou_max=5:prefetch=2
          -TENV:X=4 -WOPT:mem_opnds=on:retype_expr=on:val=0
177.mesa: -O2 -ipa -OPT:Ofast -fno-math-errno +FDO
178.galgel: -Ofast -OPT:treeheight=on:unroll_times=8:unroll_size=512:ro=3
           -CG:load_exe=0:use_movlpd=on
           -LNO:fusion=2:prefetch=0 +FDO
179.art: -O3 -OPT:Ofast -fno-math-errno -m32 +FDO
183.quake: -Ofast -OPT:unroll_size=0:alias=disjoint:treeheight=on
           -WOPT:val=0
          loader: -IPA:plimit=1125:small_pu=43
187.facerec: -Ofast -OPT:treeheight=on:IEEE_NaN_Inf=off:ro=3 -CG:load_exe=0
           -LNO:fusion=2:prefetch=0 -LANG:short_circuit_conditionals=on +FDO -IPA:plimit=1800
188.amp: -O3 -OPT:alias=disjoint:unroll_times=8:Ofast:ro=3 -fno-math-errno -TENV:X=4 +FDO
189.lucas: -Ofast -CG:prefetch=off:load_exe=2:local_fwd_sched
           -TENV:X=4 -WOPT:retype_expr=on +FDO
191.fma3d: -O2 -ipa -WOPT:mem_opnds=on:retype_expr=on -OPT:Ofast:IEEE_arith=3:ro=3
           -LANG:short_circuit_conditionals=on +FDO -IPA:pu_reorder=on
200.sixtrack:= -Ofast -CG:prefetch=off +FDO
301.apsi: -Ofast -TENV:X=4 -LNO:fusion=2:prefetch=0:blocking=off
          loader: -IPA:linear=on:plimit=525

```

Notes

BIOS build level M1E127AUS, date, May-2004.