



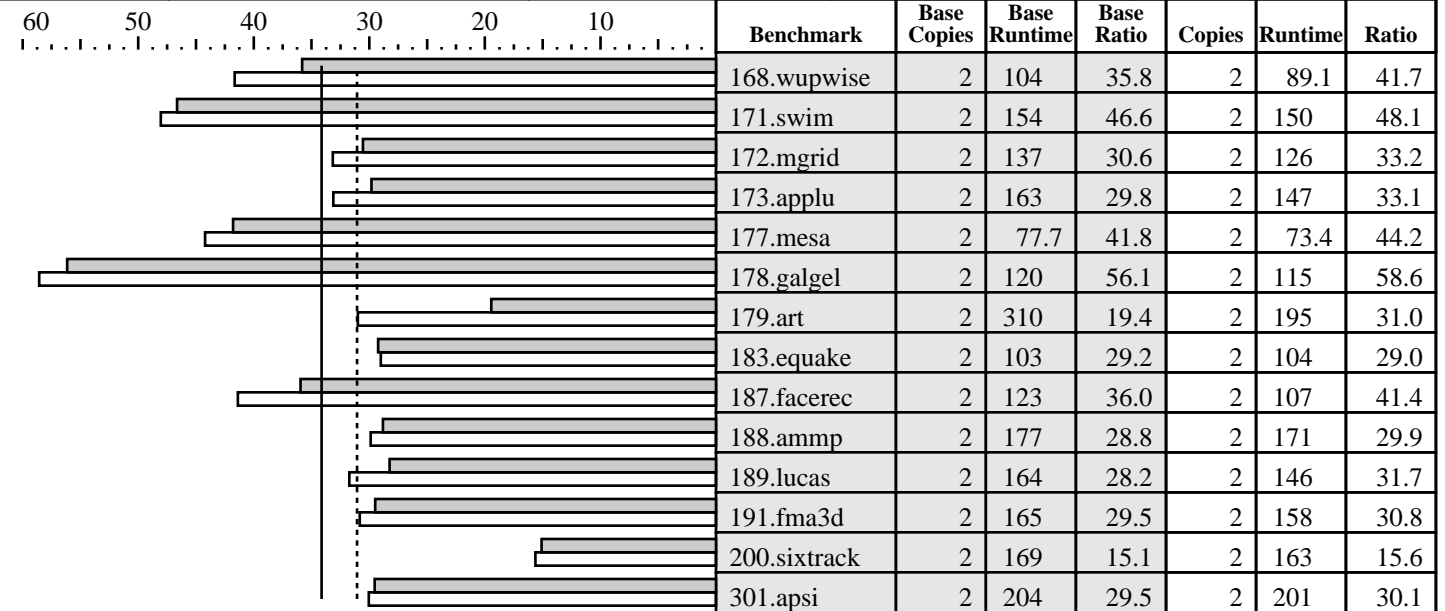
# CFP2000 Result

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

SPECfp\_rate2000 = 34.1  
SPECfp\_rate\_base2000 = 31.1

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



### Hardware

CPU: AMD Opteron 250  
 CPU MHz: 2400  
 FPU: Integrated  
 CPU(s) enabled: 2 cores, 2 chips, 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+2x1024MB, DDR333  
 Disk Subsystem: SCSI, 36GB 10K RPM  
 Other Hardware: None

### Software

Operating System: SUSE Linux 8.0 SLES 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



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## Notes/Tuning Information (Continued)

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-CG:gcm=off:cflow=off -GRA:home=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.