CINT2000 Result

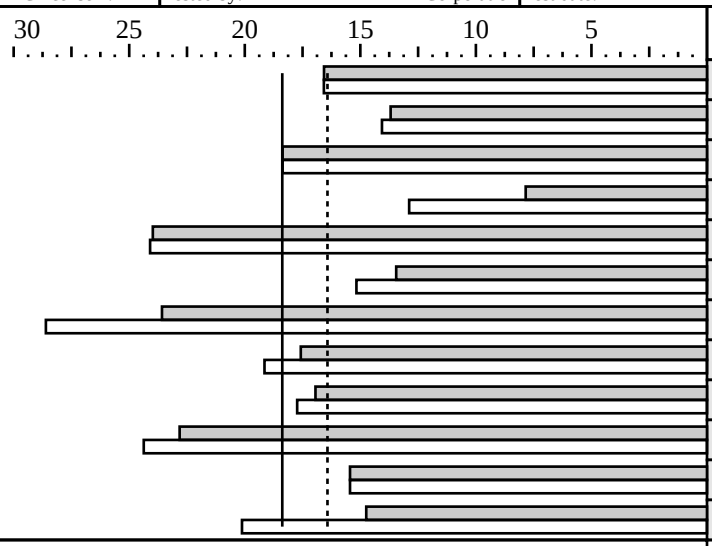
Copyright ©1999-2004, Standard Performance Evaluation Corporation

IBM
eServer 326, 2.4 GHz AMD Opteron (TM)

SPECint_rate2000 = 18.4

SPECint_rate_base2000 = 16.4

SPEC license #: 11 | Tested by: IBM Corporation | Test date: Oct-2004 | Hardware Avail: Oct-2004 | Software Avail: Oct-2004



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	1	98.0	16.6	1	98.0	16.6
175.vpr	1	119	13.7	1	115	14.1
176.gcc	1	69.5	18.4	1	69.5	18.4
181.mcf	1	266	7.85	1	162	12.9
186.crafty	1	48.4	24.0	1	48.1	24.1
197.parser	1	155	13.4	1	138	15.2
252.eon	1	63.9	23.6	1	52.7	28.6
253.perlbmk	1	119	17.6	1	109	19.1
254.gap	1	75.3	16.9	1	72.0	17.7
255.vortex	1	96.6	22.8	1	90.4	24.4
256.bzip2	1	113	15.4	1	113	15.4
300.twolf	1	236	14.7	1	173	20.1

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:	8x512MB, DDR400
Disk Subsystem:	SCSI, 36GB 10K RPM
Other Hardware:	None

Software

Operating System:	SuSE Linux 8.0 SLES 64 bit Kernel 2.4.21-143-smp (SP3)
Compiler:	PathScale EKO Compiler Suite, Release 1.4
File System:	Linux/reiserfs
System State:	Multi-user, run level 3

Notes/Tuning Information

```
Tested by IBM Corporation

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

 Baseline optimization flags:
   C programs:       -O3 -ipa +FDO
   C++ programs:     -Ofast +FDO

 Portability Flags:
   175.vpr:     -DSPEC_CPU2000
   181.mcf:     -DWANT_STDC_PROTO
   186.crafty:  -DLINUX_i386 -DSPEC_CPU2000
   252.eon:     -DHAS_ERRLIST -DFMAX_IS_DOUBLE -DSPEC_CPU2000_LP64
   253.perlbmk: -DSPEC_CPU2000_LINUX_I386 -DSPEC_CPU2000_NEED_BOOL
                -DSPEC_CPU2000_GLIBC22 -DSPEC_CPU2000_LP64
   254.gap:     -DSYS_IS_USG -DSYS_HAS_IOCTL_PROTO -DSYS_HAS_TIME_PROTO
                -DSYS_HAS_SIGNAL_PROTO  -DSYS_HAS_ANSI
                -DSYS_HAS_CALLOC_PROTO -DSPEC_CPU2000_LP64
   255.vortex:  -DSPEC_CPU2000_LP64
   300.twolf:   -DSPEC_CPU2000 -DHAVE_SIGNED_CHAR
```

Copyright ©1999-2004, Standard Performance Evaluation Corporation

Notes/Tuning Information (Continued)

```
Peak Tuning:
  164.gzip:    -Ofast +FDO
  175.vpr:     -O2 -ipa -OPT:alias=disjoint
               -CG:p2align_freq=500000 -INLINE:aggressive=on
               -IPA:space=300:plimit=10000:callee_limit=5000:linear=on
               +FDO
  176.gcc:     basepeak = true
  181.mcf:     -O3 -ipa -IPA:field_reorder=on -m32
  186.crafty:  -Ofast +FDO
  197.parser:  -O3 -ipa -m32 -IPA:ctype=on +FDO
  252.eon:     -Ofast -CG:gcm=off:p2align_freq=1:prefetch=off
               -OPT:treeheight=on -TENV:X=4:frame_pointer=off
               -fno-exceptions -LNO:fu=10:full_unroll_outer=on
               +FDO -IPA:plimit=4000:pu_reorder=1
  253.perlbmk: -O3 -ipa +FDO -IPA:plimit=10000
  254.gap:     -O3 -ipa -OPT:transform_to_memlib=on +FDO
  255.vortex:  -Ofast -IPA:space=70:plimit=3000
               -OPT:goto=off:unroll_analysis=off:unroll_size=0:unroll_times_max=8
               -LNO:opt=0 -TENV:X=4 +FDO
  256.bzip2:   basepeak=TRUE
  300.twolf:   -O2 -OPT:unroll_times=8:unroll_size=256:alias=disjoint:Ofast
               -CG:gcm=off:p2align_freq=100000 -WOPT:mem_opnds=on -m32 +FDO

BIOS Settings:
  ChipKill was DISABLED

Compiler Flags File:
  IBM-PathScale-20041025
```