



CINT2000 Result

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**Bull
NovaScale 4040 (1600MHz)**

SPECint2000 = 1457
SPECint_base2000 = 1445

SPEC license #: 20 Tested by: Allaoua Ait Eldjoudi Test date: Nov-2004 Hardware Avail: Nov-2004 Software Avail: Nov-2004

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	
164.gzip	1400	133	1052	133	1052	
175.vpr	1400	118	1190	113	1238	
176.gcc	1100	69.2	1590	68.7	1600	
181.mcf	1800	63.9	2816	61.2	2941	
186.crafty	1000	78.7	1271	77.7	1287	
197.parser	1800	163	1103	163	1102	
252.eon	1300	65.9	1973	66.2	1965	
253.perlbnk	1800	135	1337	135	1337	
254.gap	1100	120	919	119	921	
255.vortex	1900	85.3	2229	85.3	2227	
256.bzip2	1500	116	1288	116	1288	
300.twolf	3000	198	1513	198	1513	

Hardware

CPU: Itanium 2 processor 1600 MHz
 CPU MHz: 1600
 FPU: Integrated
 CPU(s) enabled: 1 core, 1 chip, 1 core/chip
 CPU(s) orderable: 1 to 4
 Parallel: No
 Primary Cache: 16KBI + 16KBD on chip, per core
 Secondary Cache: 256KB(I+D) on chip, per core
 L3 Cache: 9.0MB (I+D) on chip, per core
 Other Cache: N/A
 Memory: 8 GB (16 * 512MB DIMMs DDR 266)
 Disk Subsystem: 1 SCSI Maxtor 10krpm 36 GB
 Other Hardware:

Software

Operating System: Bull Advanced Server 2 V3 (linux kernel 2.6.4, glibc 2.2.4)
 Compiler: Intel(R) C++ Compiler for Linux 8.1 (Build 20041021)
 File System: MicroQuill SmartHeap Library 7.01 (www.microquill.com)
 System State: ext3
 Multi User

Notes/Tuning Information

+FDO: PASS1=-prof_gen PASS2=-prof_use

Baseline optimization flags:

C programs: -fast -auto_ilp32 +FDO
 C++ programs: -fast -ansi_alias +FDO
 Extra Library: libsmartheap64.a (smh)

Portability Flags:

176.gcc: -DSPEC_CPU2000_LP64 -Dalloca=_alloca -D_LIBC
 186.crafty: -DLINUX_i386
 252.eon: -DSPEC_CPU2000_LP64 -DHAS_ERRLIST -DFMAX_IS_DOUBLE
 253.perlbnk: -DSPEC_CPU2000_LP64 -DSPEC_CPU2000_NEED_BOOL
 -DSPEC_CPU2000_LINUX_IA64 -DSPEC_CPU2000_GLIBC22
 254.gap: -DSPEC_CPU2000_LP64 -DSYS_HAS_CALLOC_PROTO -DSYS_IS_USG
 -DSYS_HAS_IOCTL_PROTO -DSYS_HAS_TIME_PROTO -DSYS_HAS_SIGNAL_PROTO
 255.vortex: -DSPEC_CPU2000_LP64

Peak optimization flags:

C programs default: -fast -auto_ilp32 +FDO
 C++ programs default: -fast -ansi_alias +FDO



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Notes/Tuning Information (Continued)

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164.gzip: -fast -auto_ilp32 + FDO + smh
186.crafty: -O2 -ipo -auto_ilp32 + FDO + smh
197.parser: -fast -auto_ilp32 + FDO + smh
253.perlbnk: -fast -auto_ilp32 + FDO + smh
250.vortex: -fast -auto_ilp32 + FDO + smh
256.bzip2: -fast -auto_ilp32 + FDO + smh
300.twolf: -fast -auto_ilp32 + FDO + smh
```

4 CPU machine with only 1 CPU enabled thanks to boot Linux
with option maxcpus=0 (ie=UP kernel) in elilo.conf