



CINT2000 Result

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Bull
NovaScale 6320 (1600MHz)

SPECint_rate2000 = 433
SPECint_rate_base2000 = 426

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

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	32	136	383	32	136	383
175.vpr	32	189	275	32	170	305
176.gcc	32	82.4	496	32	82.0	498
181.mcf	32	193	346	32	187	358
186.crafty	32	79.3	468	32	78.6	472
197.parser	32	193	346	32	193	346
252.eon	32	67.3	717	32	67.6	714
253.perlbnk	32	143	467	32	143	466
254.gap	32	142	288	32	141	290
255.vortex	32	112	632	32	111	635
256.bzip2	32	136	411	32	137	408
300.twolf	32	226	492	32	216	515

Hardware

CPU: Itanium 2 processor 1600 MHz
 CPU MHz: 1600
 FPU: Integrated
 CPU(s) enabled: 32 cores, 32 chips, 1 core/chip
 CPU(s) orderable: 4 to 32
 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: 128 GB (8 * 16 * 1GB DIMMs)
 Disk Subsystem: 1 SJ0812 Disk drawer with
 2 15krpm 36GB SCSI disks
 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)
 MicroQuill SmartHeap Library 7.01 (www.microquill.com)
 File System: ext3
 System State: 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



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Notes/Tuning Information (Continued)

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

```
164.gzip: -fast -auto_ilp32 + FDO + smh
186.crafty: -O2 -ipo -auto_ilp32 + FDO + smh
197.parser: -fast -auto_ilp32 + FDO + smh
253.perlbmk: -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
```

Processes were bound to CPUs using pexec