



CINT2000 Result

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Bull
NovaScale 6160 HPC 8 way (1600MHz)

SPECint_rate2000 = 125
SPECint_rate_base2000 = 124

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.zip	8	134	96.8	8	134	96.9
175.vpr	8	139	93.3	8	131	99.5
176.gcc	8	72.7	140	8	71.7	142
181.mcf	8	101	166	8	100	166
186.crafty	8	78.8	118	8	77.8	119
197.parser	8	172	97.2	8	172	97.3
252.eon	8	66.0	183	8	66.2	182
253.perlbnk	8	136	123	8	136	123
254.gap	8	126	81.1	8	125	81.6
255.vortex	8	94.4	187	8	94.7	186
256.bzip2	8	119	117	8	120	116
300.twolf	8	198	141	8	208	134

Hardware

CPU: Itanium 2 processor 1600 MHz
 CPU MHz: 1600
 FPU: Integrated
 CPU(s) enabled: 8 cores, 8 chips, 1 core/chip
 CPU(s) orderable: 4 to 8
 Parallel: No
 Primary Cache: 16KBI + 16KBD on chip, per core
 Secondary Cache: 256KB(I+D) on chip, per core
 L3 Cache: 9MB (I+D) on chip, per core
 Other Cache: N/A
 Memory: 64 GB (4 * 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
```

16 CPU machine with only 8 CPU enabled
8 CPU disabled by service processor before booting
Processes were bound to CPUs using pexec