



# CINT2000 Result

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**Bull**  
**NovaScale 6160 (1500MHz)**

SPECint\_rate2000 = 206  
SPECint\_rate\_base2000 = 206

SPEC license #: 20 | Tested by: Bull | Test date: Feb-2005 | Hardware Avail: Nov-2004 | Software Avail: Nov-2004

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	16	148	175	16	148	176
175.vpr	16	168	155	16	166	156
176.gcc	16	86.2	237	16	84.8	241
181.mcf	16	220	152	16	214	156
186.crafty	16	83.0	224	16	82.5	225
197.parser	16	206	162	16	206	162
252.eon	16	70.6	342	16	70.8	341
253.perlbnk	16	151	221	16	151	221
254.gap	16	145	140	16	146	140
255.vortex	16	113	313	16	113	313
256.bzip2	16	147	189	16	152	184
300.twolf	16	215	259	16	215	259

### Hardware

CPU: Itanium 2 processor 1500 MHz  
 CPU MHz: 1500  
 FPU: Integrated  
 CPU(s) enabled: 16 cores, 16 chips, 1 core/chip  
 CPU(s) orderable: 4 to 16  
 Parallel: No  
 Primary Cache: 16KBI + 16KBD on chip, per core  
 Secondary Cache: 256KB(I+D) on chip, per core  
 L3 Cache: 4.0 MB (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 20041123)  
 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: (default)

C programs: -fast -auto\_ilp32 +FDO



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## Notes/Tuning Information (Continued)

C++ programs: -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.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
```

Processes were bound to CPUs using pexec