



# CINT2000 Result

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## IBM xSeries 445 (2.8 GHz Xeon MP)

SPECint\_rate2000 = 131

SPECint\_rate\_base2000 = 129

SPEC license #: 11 | Tested by: IBM, Research Triangle Park, NC | Test date: Sep-2003 | Hardware Avail: Jul-2003 | Software Avail: Apr-2003

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	16	253	103	16	249	105
175.vpr	16	184	141	16	183	142
176.gcc	16	877	23.3	16	940	21.7
181.mcf	16	522	64.0	16	523	63.9
186.crafty	16	93.3	199	16	93.3	199
197.parser	16	179	187	16	179	187
252.eon	16	105	230	16	90.4	267
253.perlbnk	16	171	195	16	171	196
254.gap	16	296	69.0	16	296	69.0
255.vortex	16	139	253	16	139	253
256.bzip2	16	198	141	16	187	149
300.twolf	16	223	250	16	223	250

### Hardware

CPU: Intel Xeon MP (400 MHz system bus)  
 CPU MHz: 2800  
 FPU: Integrated  
 CPU(s) enabled: 16 cores, 16 chips, 1 core/chip  
 CPU(s) orderable: 2,4,8,16  
 Parallel: No  
 Primary Cache: 12K(I) micro-ops + 8KB(D) on chip  
 Secondary Cache: 512KB(I+D) on chip  
 L3 Cache: 2048KB(I+D) on chip  
 Other Cache: 64MB per 4 CPUs  
 Memory: 16 x 1024MB DDR200  
 Disk Subsystem: 2 x 36GB SCSI  
 Other Hardware:

### Software

Operating System: Windows 2003 Advanced Server Build 3790  
 Compiler: Intel C++ Compiler 7.0 (20021018Z)  
 Microsoft Visual C++ .NET (Ver. 2002)  
 File System: NTFS  
 System State: Default

## Notes/Tuning Information

### PORTABILITY FLAGS

176.gcc: -Dalloca=\_alloca /F10000000  
 186.crafty: -DNT\_i386  
 253.perlbnk: -DSPEC\_CPU2000\_NTOS -DPERLDLL /MT  
 254.gap: -DSYS\_HAS\_CALLOC\_PROTO -DSYS\_HAS\_MALLOC\_PROTO

### FEEDBACK DIRECTED OPTIMIZATION

ONESTEP=yes

### BASE TUNING

C: -QxW -Qipo -O3 +FDO  
 C++: -QxW -Qipo -GX -GR

### PEAK TUNING

164.gzip: -QxW -Qipo -Oa -O3 +FDO  
 175.vpr: -QxW -Qipo -O3 +FDO  
 176.gcc: -QxW -Qipo -O3 +FDO  
 181.mcf: -QxW -Qipo -O3 +FDO  
 186.crafty: -QxW -Qipo -O3 +FDO  
 197.parser: -QxW -Qipo -O3 +FDO  
 252.eon: -QxW -Qipo -O3 +FDO  
 253.perlbnk: -QxW -Qipo -O3 +FDO  
 254.gap: basepeak=yes



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## Notes/Tuning Information (Continued)

255.vortex basepeak=yes  
256.bzip2: -Qipo -Oa -Qunroll1 +FDO  
300.twolf: basepeak=yes