



# CINT2000 Result

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Hewlett-Packard Company  
ProLiant BL45p (AMD Opteron (TM) 875)

SPECint\_rate2000 = 130  
SPECint\_rate\_base2000 = 117

SPEC license #: 3 Tested by: Hewlett-Packard Company Test date: Apr-2005 Hardware Avail: May-2005 Software Avail: Apr-2005

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	8	107	122	8	105	124
175.vpr	8	141	92.1	8	137	94.7
176.gcc	8	81.8	125	8	81.8	125
181.mcf	8	387	43.2	8	229	73.1
186.crafty	8	53.6	173	8	53.3	174
197.parser	8	185	90.3	8	149	112
252.eon	8	62.2	194	8	55.7	217
253.perlbnk	8	121	138	8	113	148
254.gap	8	85.0	120	8	85.0	120
255.vortex	8	91.2	193	8	89.4	197
256.bzip2	8	131	106	8	131	106
300.twolf	8	267	104	8	202	138

### Hardware

CPU: AMD Opteron (TM) 875  
 CPU MHz: 2200  
 FPU: Integrated  
 CPU(s) enabled: 8 cores, 4 chips, 2 cores/chip  
 CPU(s) orderable: 2,4  
 Parallel: No  
 Primary Cache: 64KBI + 64KBD (on chip) per core  
 Secondary Cache: 1024KB(I+D) (on chip) per core  
 L3 Cache: N/A  
 Other Cache: N/A  
 Memory: 16x2048MB PC3200 CL3.0  
 Disk Subsystem: 1x36.4GB 15K Ultra320 SCSI  
 Other Hardware:

### Software

Operating System: SuSE Linux Enterprise Server 9 (x86\_64) SP 1  
 SuSE kernel 2.6.5-7.139-smp  
 Compiler: PathScale EKO Compiler Suite, Release 2.1  
 File System: Linux/ext2  
 System State: Multi-user run level 3

## Notes/Tuning Information

```
+FDO: PASS1= -fb_create fbdata PASS2= -fb_opt fbdata
Base tuning for C programs: -O3 -ipa +FDO
Base tuning for C++ programs: -Ofast +FDO
Portability flags:
186.crafty: -DLINUX_i386
252.eon: -DHAS_ERRLIST -DSPEC_CPU2000_LP64 srcalt=fmax_errno
253.perlbnk: -DSPEC_CPU2000_LINUX_I386 -DSPEC_CPU2000_NEED_BOOL
           -DSPEC_CPU2000_GLIBC22 -DSPEC_CPU2000_LP64
254.gap: -DSYS_IS_USG -DSYS_HAS_IOCTL_PROTO -DSYS_HAS_TIME_PROTO
          -DSYS_HAS_SIGNAL_PROTO -DSYS_HAS_ANSI -DSYS_HAS_CALLOC_PROTO
          -DSPEC_CPU2000_LP64
255.vortex: -DSPEC_CPU2000_LP64 srcalt=closed_files
300.twolf: -DHAVE_SIGNED_CHAR
Peak tuning:
164.gzip: -Ofast +FDO
175.vpr: -O2 -ipa -OPT:alias=disjoint -CG:p2align_freq=500000 -INLINE:aggressive=on
          -IPA:space=300:plimit=10000:callee_limit=5000:linear=on +FDO

176.gcc: basepeak=true
181.mcf: -O3 -ipa -IPA:field_reorder=on -m32 +FDO
```



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## Notes/Tuning Information (Continued)

```

186.crafty: -Ofast +FDO
197.parser: -O3 -ipa -m32 -IPA:cctype=on +FDO
252.eon: -Ofast -CG:gcm=off:p2align_freq=1:prefetch=off -OPT:treeheight=on
        -TENV:X=4:frame_pointer=off -fno-exceptions -LNO:fu=10:full_unroll_outer=on
        -IPA:plimit=4000:pu_reorder=1 +FDO
253.perlbnk: -O3 -ipa -IPA:plimit=10000 +FDO
254.gap: -O3 -ipa -OPT:transform_to_memlib=on
255.vortex: -Ofast -IPA:space=70:plimit=3000
        -OPT:goto=off:unroll_analysis=off:unroll_size=0:unroll_times_max=8
        -LNO:opt=0 -TENV:X=4 +FDO
256.bzip2: basepeak=true
300.twolf: -O2 -OPT:unroll_times_max=8:unroll_size=256:alias=disjoint:Ofast
        -CG:gcm=off:p2align_freq=100000 -WOPT:mem_opnds=on -m32 +FDO

```

BIOS Configuration Notes  
Node Interleaving Disabled

Other Configuration Notes  
Taskset utility used to bind process to CPU(s)