



# CINT2000 Result

Copyright ©1999-2004, Standard Performance Evaluation Corporation

Hewlett-Packard Company  
HP Superdome 64-way (875MHz PA-8700+)

SPECint\_rate2000 = 413  
SPECint\_rate\_base2000 = 394

SPEC license #: 3 Tested by: HP Test date: Jun-2002 Hardware Avail: Jul-2002 Software Avail: Jun-2002

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	64	257	405	64	255	407
175.vpr	64	271	383	64	271	383
176.gcc	64	157	519	64	157	519
181.mcf	64	801	167	64	801	167
186.crafty	64	134	555	64	134	555
197.parser	64	413	323	64	387	345
252.eon	64	222	434	64	192	501
253.perlbnk	64	325	411	64	286	468
254.gap	64	391	209	64	372	220
255.vortex	64	192	734	64	183	772
256.bzip2	64	356	313	64	319	349
300.twolf	64	329	676	64	325	686

### Hardware

CPU: PA-8700+  
 CPU MHz: 875  
 FPU: Integrated  
 CPU(s) enabled: 64 cores, 64 chips, 1 core/chip  
 CPU(s) orderable: 8 to 64  
 Parallel: No  
 Primary Cache: 0.75MB(I) + 1.5MB(D) on chip  
 Secondary Cache: None  
 L3 Cache: None  
 Other Cache: None  
 Memory: 256GB (512x512MB DIMMs total)  
 Disk Subsystem: 5x9GB Fibrechannel (striped)  
 Other Hardware: None

### Software

Operating System: HP-UX 11i TCOE B.11.11.0206.5  
 Compiler: HP ANSI C compiler B.11.11.04  
 HP aC++ compiler C.03.33.01  
 PHCO\_24402 libc cumulative header file patch  
 PHCO\_26124 libc cumulative patch  
 PHSS\_24207 libm patch  
 PHSS\_25719 libCL patch  
 PHSS\_26263 ld(1) and linker tools cumulative patch  
 PHSS\_26264 linker startup code / SLLIC ELF support  
 PHSS\_26792 Ansi C compiler cumulative patch  
 PHSS\_26793 +O4/PBO optimizer cumulative patch  
 PHSS\_26229 aC++ cumulative patch (A.03.34)

File System: OnLine JFS  
 System State: Single-user

## Notes/Tuning Information

### Portability:

```
176.gcc: -DHOST_WORDS_BIG_ENDIAN
186.crafty: -DHP
252.eon: -DFMAX_IS_DOUBLE
253.perlbnk: -DSPEC_CPU2000_HP
254.gap: -DSPEC_CPU2000_HP -DSYS_IS_USG -DSYS_HAS_IOCTL_PROTO
        -DSYS_HAS_TIME_PROTO -DSYS_HAS_CALLOC_PROTO
```

### Baseline compile flags:

```
C      : +I/+P +Oall +Ostatic_prediction -Wl,-a,archive
C++    : +I/+P +O3 +Ostatic_prediction -Wl,-a,archive
```

### Peak compile flags:

```
164.gzip: +I/+P +Oall +Optrs_strongly_typed +Oinline_budget=800
        -Wl,-a,archive +Ostatic_prediction
175.vpr: basepeak=true
176.gcc: basepeak=true
181.mcf: basepeak=true
186.crafty: basepeak=true
```



# CINT2000 Result

Copyright ©1999-2004, Standard Performance Evaluation Corporation

Hewlett-Packard Company  
HP Superdome 64-way (875MHz PA-8700+)

SPECint\_rate2000 = 413  
SPECint\_rate\_base2000 = 394

SPEC license #: 3 Tested by: HP Test date: Jun-2002 Hardware Avail: Jul-2002 Software Avail: Jun-2002

## Notes/Tuning Information (Continued)

```
197.parser: +I/+P +Oall +Odataprefetch +ESfic +Oinline_budget=400
            +Owhole_program_mode -Wl,-a,archive +Ostatic_prediction
252.eon:    +I/+P +noeh +O4 +Optrs_strongly_typed +Olibcalls +Oentrysched
            +A +ESfic -Wl,-a,archive +Ostatic_prediction
253.perlbnk: +I/+P +Oall +ESlit +ESfic +Optrs_strongly_typed
            +Opromote_indirect_calls -Wl,-a,archive +Ostatic_prediction
            linked with /opt/langtools/lib/fastmem.o
254.gap:    +I/+P +Oall +ESlit +ESfic +Optrs_strongly_typed
            +Opromote_indirect_calls -Wl,-a,archive +Ostatic_prediction
255.vortex: +I/+P +Oall +Oinline_budget=800 +Optrs_strongly_typed
            -Wl,-a,archive +Ostatic_prediction
256.bzip2:  +I/+P +Oall +Odataprefetch +Optrs_strongly_typed +Owhole_program_mode
            +Onoptrs_to_globals +Oinline_budget=80 -Wl,-a,archive +Ostatic_prediction
300.twolf:  +I/+P +Oall +Optrs_strongly_typed -Wl,-a,archive +Ostatic_prediction
```

### Hardware configuration notes:

System was configured as a single partition with 16 cells  
boot time firmware tunable DataPrefetch enabled (default)

### Operating system configuration notes:

```
PHKL_25778 LVM cumulative patch
PHKL_25886 Filesystem buffercache performance fix
PHKL_26230 VxFS cumulative patch
```

```
vps_pagesize 4096, vps_ceiling 16384
dbc_min_pct=10, dbc_max_pct=10
maxssiz=0x10000000
```

filesystem used for spec runs mounted tmplog,mincache=tmppcache