CINT2000 Result

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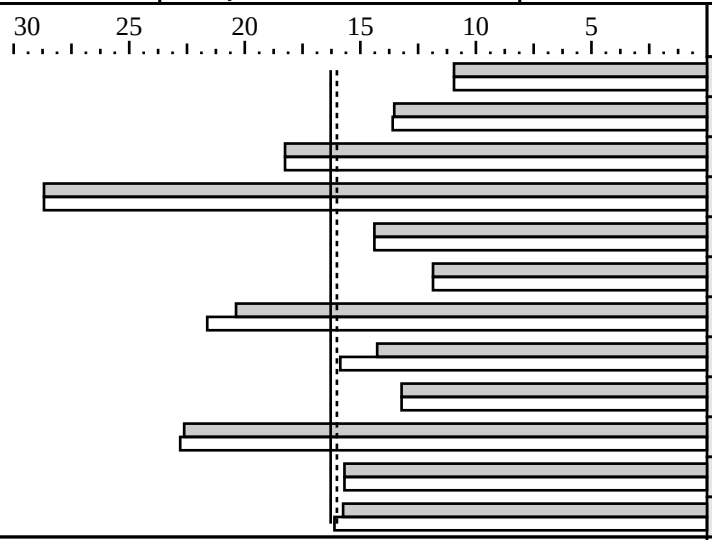
Hewlett-Packard Company

HP Integrity Server rx4640 (1500 MHz, Itanium 2)

SPECint_rate2000 = 16.3

SPECint_rate_base2000 = 16.0

SPEC license #: 3 | Tested by: HP Richardson | Test date: Jan-2004 | Hardware Avail: Jan-2004 | Software Avail: Mar-2004



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	1	148	10.9	1	148	10.9
175.vpr	1	120	13.5	1	119	13.6
176.gcc	1	69.9	18.3	1	69.9	18.3
181.mcf	1	72.8	28.7	1	72.8	28.7
186.crafty	1	80.6	14.4	1	80.6	14.4
197.parser	1	176	11.9	1	176	11.9
252.eon	1	74.0	20.4	1	69.7	21.6
253.perlbmk	1	146	14.3	1	132	15.9
254.gap	1	96.6	13.2	1	96.6	13.2
255.vortex	1	97.4	22.6	1	96.7	22.8
256.bzip2	1	111	15.7	1	111	15.7
300.twolf	1	221	15.7	1	216	16.1

Hardware

CPU:	Intel Itanium 2
CPU MHz:	1500
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 1 core/chip
CPU(s) orderable:	1-4
Parallel:	no
Primary Cache:	16KBI + 16KBD (on chip) per CPU
Secondary Cache:	256KB (on chip) per CPU
L3 Cache:	6.0MB (on chip) per CPU
Other Cache:	N/A
Memory:	32GB (16 * 2GB DIMMs)
Disk Subsystem:	1x36GB 10k RPM SCSI disk
Other Hardware:	N/A

Software

Operating System:	HPUX11i-TCOE B.11.23
Compiler:	HP C/ANSI C Compiler C.05.55
	HP aC++ Compiler C.05.55
File System:	VxFS
System State:	Multi-user

Notes/Tuning Information

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

Base Flags
 PBO        : +Oprofile=collect:all/+Oprofile=use
 C          : PBO +Ofaster -exec +Odatalayout
 C++        : PBO +Ofaster +inline_level 2 -minshared

Peak Flags
 164.gzip   : basepeak=true
 175.vpr    : PBO +Ofaster +Odatalayout +Onorecovery
                +Onoptrs_to_globals -exec
              LIBS = -Wl,-aarchive_shared -Bprotected
 176.gcc    : basepeak=true
 181.mfc    : basepeak=true
```

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Notes/Tuning Information (Continued)

```
186.crafty : basepeak=true
197.parser : basepeak=true
252.eon    : PBO +Ofaster +Odatalayout +Otype_safety=ansi
               +inline_level 2 -minshared
253.perlbmk: PBO +Ofaster +Odatalayout +Onoptrs_to_globals -exec
             LIBS = -Wl,-aarchive_shared -Bprotected_def fastmem.o
254.gap    : basepeak=true
255.vortex : PBO +Ofaster +Odatalayout +Onorecovery
               +Onoptrs_to_globals -exec
             LIBS = -Wl,-aarchive_shared -Bprotected
256.bzip2  : basepeak=true
300.twolf  : PBO +Ofaster +Odatalayout +Onoptrs_to_globals -exec
             LIBS = -Wl,-aarchive_shared -Bprotected_data effmem.o

Kernel Tunables:
  maxssiz             268435456
  vps_ceiling             16384
  vps_pagesize             4096
  swapmem_on                  1
  dbc_max_pct                20
  dbc_min_pct                20

Note:
  EFI shell utility 'cpuconfig' used
  to deconfigure processors if necessary
```