CINT2000 Result

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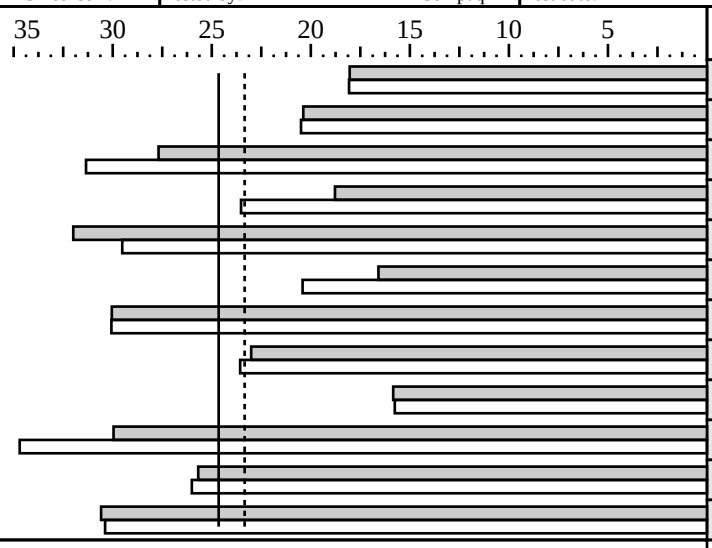
Compaq Computer Corporation
AlphaServer ES40 Model 6/833

SPECint_rate2000 = 24.7

SPECint_rate_base2000 = 23.3

SPEC license #: 2 | Tested by: Compaq NH | Test date: Feb-2001 | Hardware Avail: Jan-2001 | Software Avail: Nov-2000



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	4	360	18.0	4	360	18.1
175.vpr	4	319	20.4	4	317	20.5
176.gcc	4	184	27.7	4	163	31.3
181.mcf	4	445	18.8	4	355	23.5
186.crafty	4	145	32.0	4	157	29.5
197.parser	4	504	16.6	4	409	20.4
252.eon	4	201	30.0	4	201	30.1
253.perlbmk	4	363	23.0	4	354	23.6
254.gap	4	322	15.8	4	324	15.8
255.vortex	4	294	30.0	4	254	34.7
256.bzip2	4	271	25.7	4	268	26.0
300.twolf	4	455	30.6	4	458	30.4

Hardware

CPU:	Alpha 21264B
CPU MHz:	833
FPU:	Integrated
CPU(s) enabled:	4 cores, 4 chips, 1 core/chip
CPU(s) orderable:	1 to 4
Parallel:	No
Primary Cache:	64KB(I)+64KB(D) on chip
Secondary Cache:	8MB off chip
L3 Cache:	None
Other Cache:	None
Memory:	16GB
Disk Subsystem:	2x9GB BD0096349A
Other Hardware:	Ethernet

Software

Operating System:	Tru64 UNIX V5.1 Libc from UNIX V5.1 Patch Kit 1
Compiler:	Compaq C V6.3-129-44A8I Compaq C++ V6.2-033-4298H
File System:	AdvFS
System State:	Multi-user

Notes/Tuning Information

```
Baseline C  : cc  -arch ev6 -fast GEMFB ONESTEP
         C++: cxx -arch ev6 -O2 ONESTEP

GEMFB: fdo_pre0     = mkdir /tmp/pb; rm -f /tmp/pb/${baseexe}*
       PASS1_CFLAGS = -prof_gen_noopt    -prof_dir /tmp/pb
       PASS2_CFLAGS = -prof_use_feedback -prof_dir /tmp/pb
       (base uses directory /tmp/pb; peak uses /tmp/pp)

SPIKEFB: fdo_post2  = spike -feedback ${baseexe} -o tmp ${baseexe};
                      mv tmp ${baseexe}
Peak: cc [except eon: cxx] -arch ev6 ONESTEP plus:
     164.gzip: -g3 -fast -O4 +GEMFB
      175.vpr: -g3 -fast -O4 +GEMFB
      176.gcc: -g3 -fast -O4 -xtaso_short +GEMFB
      181.mcf: -g3 -fast -xtaso_short +GEMFB
   186.crafty: -g3 -fast -O4 -inline speed
   197.parser: -g3 -fast -O4 -xtaso_short +GEMFB
      252.eon: -O2
  253.perlbmk: -g3 -fast +GEMFB +SPIKEFB
      254.gap: -g3 -fast -O4 +GEMFB
```

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Notes/Tuning Information (Continued)

```
    255.vortex: -g3 -fast +GEMFB +SPIKEFB
     256.bzip2: -g3 -fast -O4 +GEMFB
     300.twolf: -g3 -fast -O4 +GEMFB

Portability: gcc: -Dalloca=__builtin_alloca; crafty: -DALPHA
perlbmk: -DSPEC_CPU2000_DUNIX; vortex: -DSPEC_CPU2000_LP64
gap: -DSYS_HAS_CALLOC_PROTO -DSYS_IS_BSD -DSYS_HAS_IOCTL_PROTO -DSPEC_CPU2000_LP64

Information on UNIX V5.1 Patches can be found at
http://ftp1.service.digital.com/public/unix/v5.1/
```