CINT2000 Result

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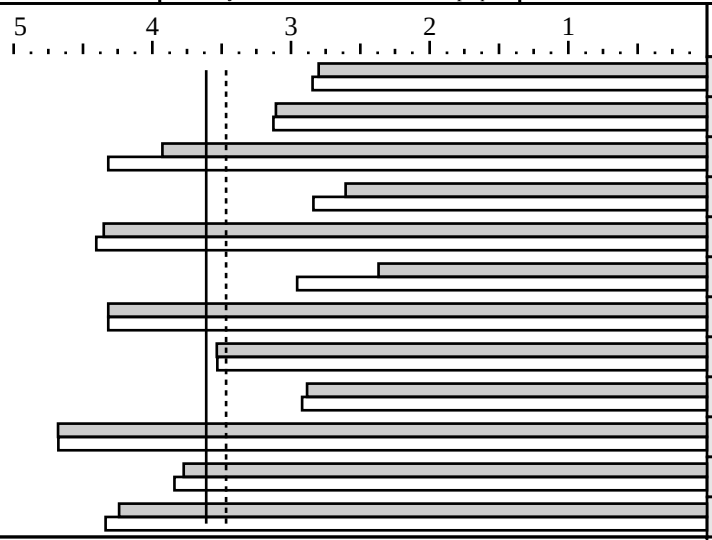
Compaq Computer Corporation
AlphaServer ES40 Model 6/500

SPECint_rate2000 = 3.61

SPECint_rate_base2000 = 3.47

SPEC license #: 2 | Tested by: Compaq NH | Test date: Sep-2000 | Hardware Avail: Apr-1999 | Software Avail: Jul-2000



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	1	580	2.80	1	571	2.84
175.vpr	1	522	3.11	1	519	3.13
176.gcc	1	325	3.93	1	296	4.32
181.mcf	1	801	2.61	1	736	2.84
186.crafty	1	267	4.35	1	263	4.40
197.parser	1	882	2.37	1	706	2.96
252.eon	1	349	4.32	1	349	4.32
253.perlbmk	1	591	3.54	1	591	3.53
254.gap	1	442	2.88	1	437	2.92
255.vortex	1	471	4.68	1	471	4.68
256.bzip2	1	461	3.77	1	453	3.84
300.twolf	1	821	4.24	1	802	4.34

Hardware

CPU:	Alpha 21264
CPU MHz:	500
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 1 core/chip
CPU(s) orderable:	1 to 4
Parallel:	No
Primary Cache:	64KB(I)+64KB(D) on chip
Secondary Cache:	4MB off chip
L3 Cache:	None
Other Cache:	None
Memory:	16GB
Disk Subsystem:	1x18GB BD018122C0
Other Hardware:	Ethernet

Software

Operating System:	Tru64 UNIX V4.0G
Compiler:	Compaq C X6.2-259-449AT DIGITAL C++ V6.1-029-408B6
File System:	ufs
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)

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
      254.gap: -g3 -fast -O4 +GEMFB
   255.vortex: -g3 -fast +GEMFB
    256.bzip2: -g3 -fast -O4 +GEMFB
```

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Notes/Tuning Information (Continued)

```
    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
```