CINT2000 Result

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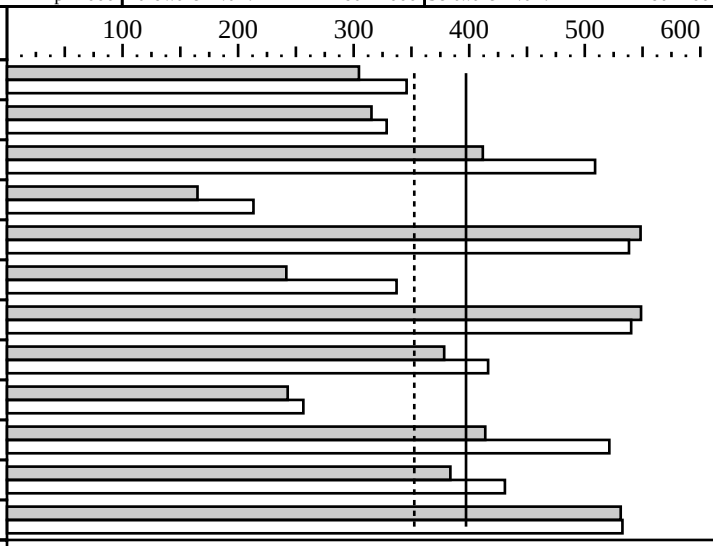
Compaq Computer Corporation
AlphaServer GS320 Model 6/731

SPECint2000 = 397

SPECint_base2000 = 352

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
164.gzip	1400	460	305	405	346
175.vpr	1400	444	315	426	329
176.gcc	1100	267	412	216	509
181.mcf	1800	1092	165	844	213
186.crafty	1000	182	548	186	538
197.parser	1800	745	242	534	337
252.eon	1300	237	549	241	540
253.perlbmk	1800	476	378	432	416
254.gap	1100	453	243	429	256
255.vortex	1900	459	414	365	521
256.bzip2	1500	391	384	348	431
300.twolf	3000	565	531	563	533



Hardware

CPU:	Alpha 21264A
CPU MHz:	731
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 1 core/chip
CPU(s) orderable:	Up to 32 by 4
Parallel:	No
Primary Cache:	64KB(I)+64KB(D) on chip
Secondary Cache:	4MB off chip per CPU
L3 Cache:	None
Other Cache:	None
Memory:	4GB
Disk Subsystem:	mfs (Memory File System)
Other Hardware:	Ethernet

Software

Operating System:	Tru64 Unix T5.1-9 (Release for GS160,GS320)
Compiler:	Compaq C T6.3-120-44A2I DIGITAL C++ V6.1-029-408B6
File System:	mfs
System State:	Multi-user

Notes/Tuning Information

```
Baseline C  : cc  -arch ev6 -fast GEMFB -non_shared
        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] -v -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 -non_shared
      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

   Compaq C T6.3 is posted at http://www.unix.digital.com/dtk/
   It has been available as an ADK (Advanced Developers' Kit)
   since February, 2000; the final version will be posted
   in July, 2000.
   The SPEC CPU2000 binaries were compiled under Unix V4.0F.
   sysconfigtab settings:
              max_proc_per_user = 4096
           max_threads_per_user = 4096
          per_proc_data_size     = 21474836480
      max_per_proc_data_size     = 21474836480
          per_proc_address_space = 21474836480
      max_per_proc_address_space = 21474836480

  Tru64 Unix V5.1 will ship in Jul-2000 for use on the GS160, GS320 platforms;
  the final version will ship Sep-2000.

  Submitted_by: henning@perfom.zko.dec.com
  Submitted: Thu May 11 19:23:54 2000
  Submission: cpu2000-20000511-00103.sub
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