



CINT2000 Result

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Compaq Computer Corporation
AlphaServer ES40 Model 6/833

SPECint_rate2000 = 12.6

SPECint_rate_base2000 = 11.9

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

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	2	350	9.29	2	348	9.33
175.vpr	2	324	10.0	2	326	9.97
176.gcc	2	188	13.6	2	167	15.3
181.mcf	2	419	9.98	2	343	12.2
186.crafty	2	146	15.9	2	156	14.8
197.parser	2	500	8.35	2	413	10.1
252.eon	2	195	15.5	2	195	15.5
253.perlbnk	2	345	12.1	2	325	12.8
254.gap	2	316	8.09	2	308	8.30
255.vortex	2	273	16.1	2	237	18.6
256.bzip2	2	276	12.6	2	258	13.5
300.twolf	2	443	15.7	2	461	15.1

Hardware

CPU: Alpha 21264B
CPU MHz: 833
FPU: Integrated
CPU(s) enabled: 2 cores, 2 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: 1x9GB BD0096349A
Other Hardware: None

Software

Operating System: Tru64 UNIX V5.1
Libc from UNIX V5.1 Patch Kit 1
Compiler: Compaq C T6.4-208-46B22
Compaq C++ V6.3-005-46B22
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 -non_shared
197.parser: -g3 -fast -O4 -xtaso_short +GEMFB
252.eon: -O2
253.perlbnk: -g3 -fast -non_shared +GEMFB +SPIKEFB
254.gap: -g3 -fast -O4 -non_shared +GEMFB



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Notes/Tuning Information (Continued)

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

```
Portability: gcc: -Dalloca=__builtin_alloca; crafty: -DALPHA
perlbnk: -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://ftpl.service.digital.com/public/unix/v5.1/>

The C compiler is the Advanced Development Kit (ADK) version of the Developers' Tool Kit (DTK) C compiler. The ADK is downloadable as of March, 2001 at <http://tru64unix.compaq.com/dtk>. The final version of DTK C V6.4 is scheduled for completion in May, 2001, and will be downloadable at the same location.