



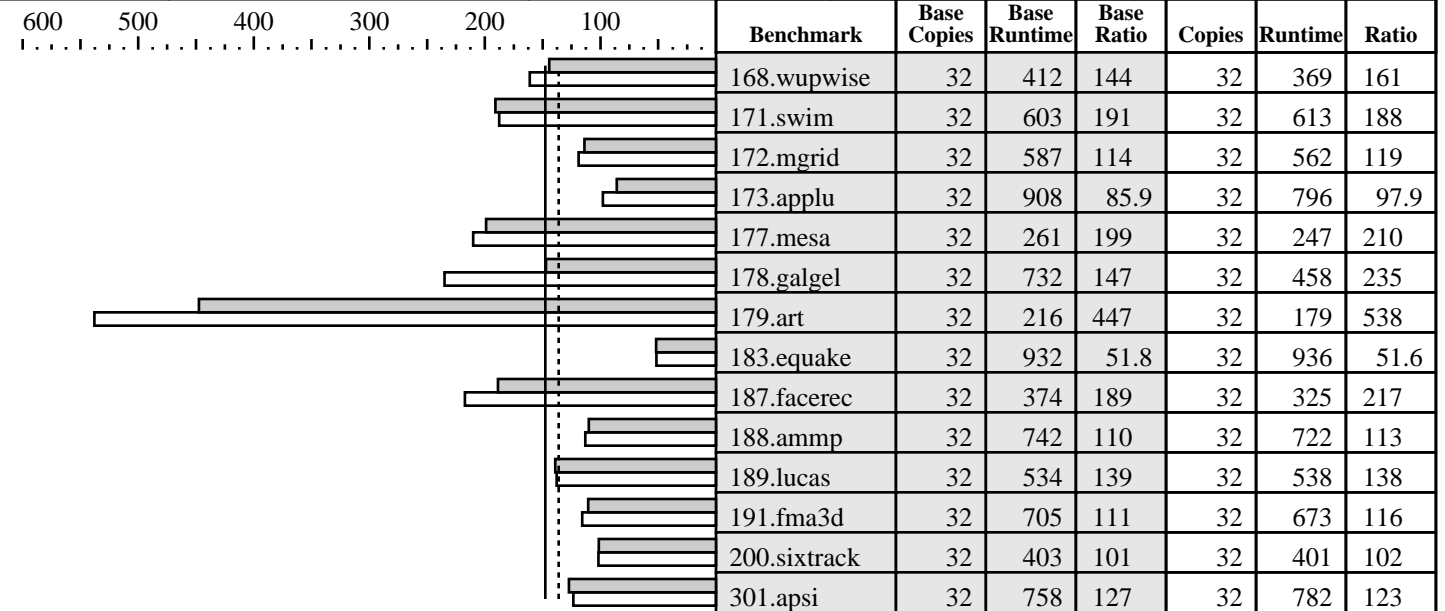
# CFP2000 Result

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Compaq Computer Corporation  
AlphaServer GS320 Model 6/731

SPECfp\_rate2000 = 148  
SPECfp\_rate\_base2000 = 136

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



### Hardware

CPU: Alpha 21264A  
 CPU MHz: 731  
 FPU: Integrated  
 CPU(s) enabled: 32 cores, 32 chips, 1 core/chip  
 CPU(s) orderable: Up to 32  
 Parallel: No  
 Primary Cache: 64KB(I)+64KB(D) on chip  
 Secondary Cache: 4MB off chip per CPU  
 L3 Cache: None  
 Other Cache: None  
 Memory: 64GB (8x8GB)  
 Disk Subsystem: mfs (Memory File System)  
 Other Hardware: Ethernet

### Software

Operating System: Tru64 Unix V5.1 (Release for GS160,GS320)  
 Compiler: Compaq C T6.3-120-44A2I  
 Compaq Fortran V5.3  
 /usr/bin/f77: fort (not fort90)  
 KAP Fortran V4.2  
 KAP C 4.0  
 File System: mfs  
 System State: Multi-user

## Notes/Tuning Information

Baseline C: cc -arch ev6 -fast -O4 ONESTEP  
 Fortran: kf90 -arch ev6 -O5 -fkapargs='-ur=-1' ONESTEP

Peak: -v -g3 -arch ev6 -non\_shared ONESTEP plus:  
 168.wupwise: f77 -fast -O4 -pipeline -unroll 2  
 171.swim: f90 -fast -O5 -transform\_loops  
 172.mgrid: kf77 -O5 -transform\_loops -tune ev6 -unroll 8  
 173.applu: f77 -fast -O5 -transform\_loops -unroll 14  
 177.mesa: cc -fast -O4  
 178.galgel: kf90 -O4 -unroll 2 -ldxml  
 RM\_SOURCES = lapak.f90  
 179.art: kcc -fast -O4 -ckapargs='-arl=4 -ur=4' -unroll 10  
 183.quake: kcc -fast -ckapargs='-arl=4' -xtaso\_short  
 187.facerec: f90 -fast -O4  
 188.amp: cc -fast -O4 -xtaso\_short  
 189.lucas: kf90 -fast -O5 -fkapargs='-ur=1' -unroll 1  
 191.fma3d: kf90 -O4



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## Notes/Tuning Information (Continued)

```
200.sixtrack: f90 -fast -O5 -transform_loops  
301.apsi: kf90 -O5 -transform_loops -unroll 8 -fkapargs='-ur=1'
```

Portability: galgel: -fixed

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.

submit = runon <cpu #> \$command

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.