



# CFP2000 Result

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Compaq Computer Corporation  
AlphaServer DS20E Model 6/667

SPECfp\_rate2000 = 12.4  
SPECfp\_rate\_base2000 = 11.6

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

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	2	363	10.2	2	309	12.0
171.swim	2	466	15.4	2	465	15.5
172.mgrid	2	533	7.84	2	399	10.5
173.applu	2	501	9.73	2	500	9.75
177.mesa	2	261	12.4	2	264	12.3
178.galgel	2	261	25.8	2	262	25.6
179.art	2	195	31.0	2	159	38.0
183.quake	2	545	5.53	2	506	5.96
187.facerec	2	259	17.0	2	250	17.6
188.amp	2	558	9.14	2	516	9.88
189.lucas	2	395	11.8	2	378	12.3
191.fma3d	2	474	10.3	2	482	10.1
200.sixtrack	2	404	6.32	2	374	6.82
301.apsi	2	597	10.1	2	624	9.66

**Hardware**

CPU: Alpha 21264A  
 CPU MHz: 667  
 FPU: Integrated  
 CPU(s) enabled: 2 cores, 2 chips, 1 core/chip  
 CPU(s) orderable: 1 to 2  
 Parallel: No  
 Primary Cache: 64KB(I)+64KB(D) on chip  
 Secondary Cache: 8MB off chip  
 L3 Cache: None  
 Other Cache: None  
 Memory: 4GB  
 Disk Subsystem: 1x18GB  
 Other Hardware: Ethernet

**Software**

Operating System: Tru64 UNIX V5.1  
 UNIX V5.1 Patch Kit 2  
 Compiler: Compaq C V6.4-214-46B59  
 Compaq Fortran V5.4A-1472-46B2F  
 Compaq Fortran 77 V5.4A-196-46B2F  
 KAP Fortran V4.3 000607  
 KAP Fortran 77 V4.1 980926  
 KAP C V4.1 000607  
 File System: AdvFS  
 System State: Multi-user

## Notes/Tuning Information

Baseline C: cc -arch ev6 -fast -O4 ONESTEP  
 Fortran: f90 -arch ev6 -fast -O5 ONESTEP

Peak: -g3 -arch ev6 -non\_shared ONESTEP plus:

168.wupwise: kf77 -fast -O4 -pipeline -unroll 2  
 171.swim: f90 -fast -O5  
 172.mgrid: kf77 -O5 -transform\_loops -tune ev6 -unroll 8  
 173.applu: f90 -fast -O5  
 177.mesa: cc -fast -O4  
 178.galgel: f90 -fast -O5  
 179.art: kcc -fast -O4 -ckapargs='-arl=4 -ur=4' -unroll 10  
 183.quake: cc -fast -xtaso\_short  
 187.facerec: f90 -fast -O4  
 188.amp: cc -fast -O4 -xtaso\_short  
 189.lucas: kf90 -O5 -fkapargs='-ur=1'  
 191.fma3d: kf90 -O4  
 200.sixtrack: f90 -fast -O5 -assume accuracy\_sensitive



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## Notes/Tuning Information (Continued)

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

Portability: galgel: -fixed

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