CFP2000 Result

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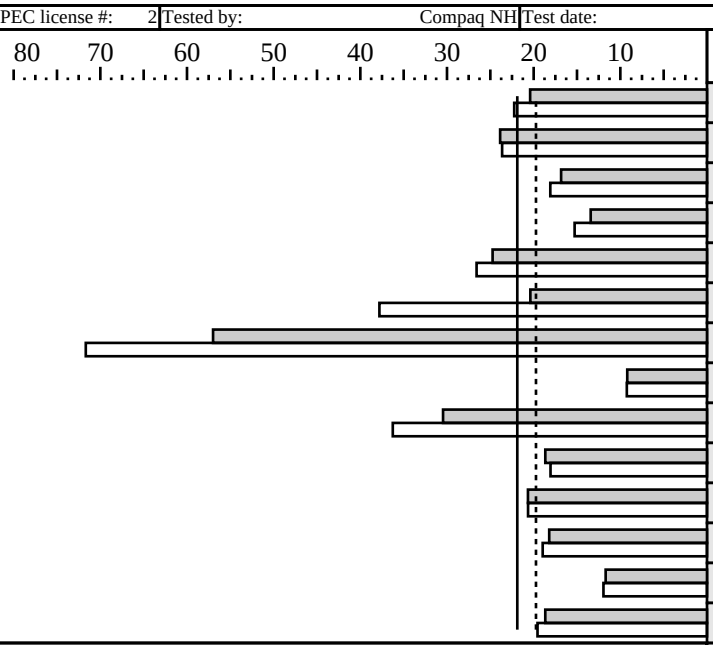
Compaq Computer Corporation
AlphaServer ES40 Model 6/667

SPECfp_rate2000 = 21.9

SPECfp_rate_base2000 = 19.7

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



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	4	364	20.4	4	334	22.2
171.swim	4	603	23.9	4	608	23.6
172.mgrid	4	496	16.8	4	462	18.1
173.applu	4	726	13.4	4	638	15.3
177.mesa	4	263	24.7	4	244	26.6
178.galgel	4	660	20.4	4	356	37.8
179.art	4	212	57.0	4	168	71.7
183.equake	4	656	9.20	4	652	9.25
187.facerec	4	289	30.5	4	243	36.3
188.ammp	4	547	18.7	4	565	18.1
189.lucas	4	449	20.7	4	449	20.6
191.fma3d	4	535	18.2	4	514	19.0
200.sixtrack	4	436	11.7	4	427	11.9
301.apsi	4	647	18.7	4	617	19.6

Hardware

CPU:	Alpha 21264A
CPU MHz:	667
FPU:	Integrated
CPU(s) enabled:	4 cores, 4 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:	1x18GB BD018122C0
Other Hardware:	Ethernet

Software

Operating System:	Tru64 UNIX V4.0G
Compiler:	Compaq C X6.2-259-449AT Compaq Fortran V5.3 /usr/bin/f77: fort (not fort90) KAP Fortran V4.2 KAP C 4.0
File System:	ufs
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:  -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.equake: kcc -fast -ckapargs='-arl=4' -xtaso_short
   187.facerec: f90 -fast -O4
      188.ammp: 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
```