CFP2000 Result

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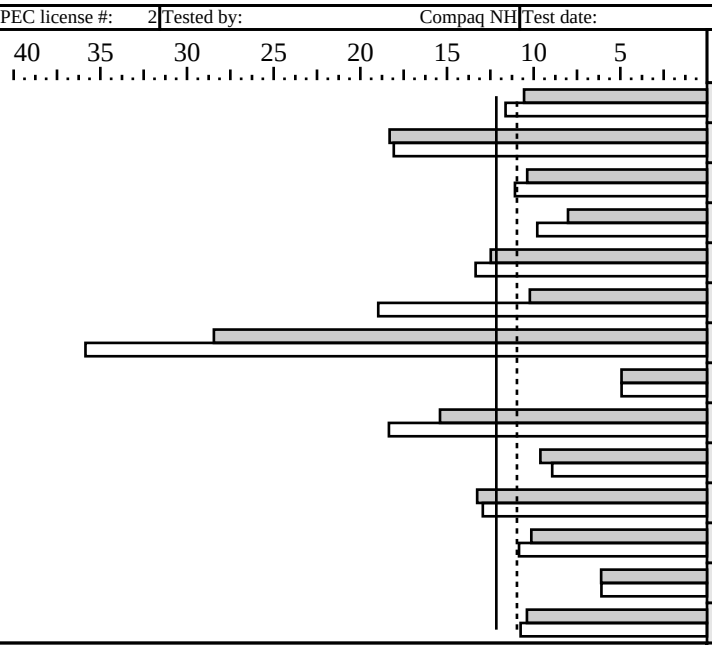
Compaq Computer Corporation
AlphaServer ES40 Model 6/667

SPECfp_rate2000 = 12.2

SPECfp_rate_base2000 = 11.0

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	2	352	10.6	2	319	11.6
171.swim	2	393	18.3	2	398	18.1
172.mgrid	2	403	10.4	2	377	11.1
173.applu	2	608	8.02	2	498	9.79
177.mesa	2	260	12.5	2	243	13.3
178.galgel	2	658	10.2	2	355	19.0
179.art	2	212	28.4	2	168	35.9
183.equake	2	612	4.93	2	612	4.93
187.facerec	2	286	15.4	2	240	18.4
188.ammp	2	531	9.61	2	572	8.93
189.lucas	2	350	13.3	2	359	12.9
191.fma3d	2	481	10.1	2	449	10.8
200.sixtrack	2	418	6.11	2	419	6.09
301.apsi	2	581	10.4	2	561	10.8

Hardware

CPU:	Alpha 21264A
CPU MHz:	667
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:	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
```