CFP2000 Result

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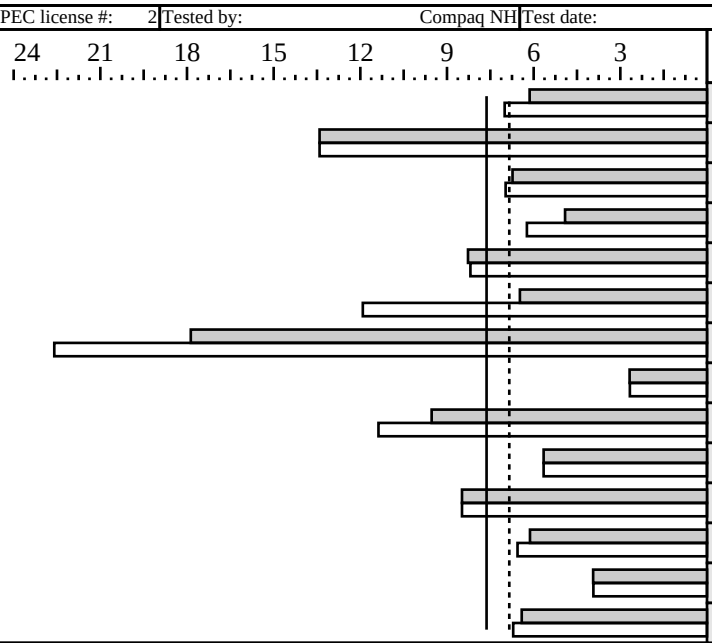
Compaq Computer Corporation
AlphaServer ES40 Model 6/833

SPECfp_rate2000 = 7.63

SPECfp_rate_base2000 = 6.84

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



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	1	302	6.14	1	265	7.00
171.swim	1	268	13.4	1	268	13.4
172.mgrid	1	310	6.73	1	300	6.97
173.applu	1	496	4.91	1	391	6.23
177.mesa	1	196	8.27	1	198	8.19
178.galgel	1	519	6.48	1	282	11.9
179.art	1	169	17.9	1	133	22.6
183.equake	1	563	2.68	1	565	2.67
187.facerec	1	231	9.53	1	194	11.4
188.ammp	1	451	5.66	1	451	5.66
189.lucas	1	274	8.48	1	274	8.48
191.fma3d	1	398	6.13	1	371	6.56
200.sixtrack	1	324	3.94	1	324	3.93
301.apsi	1	470	6.41	1	450	6.71

Hardware

CPU:	Alpha 21264B
CPU MHz:	833
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 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
```