



CFP2000 Result

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Compaq Computer Corporation AlphaServer ES40 Model 6/500

SPECfp_rate2000 = 15.6
SPECfp_rate_base2000 = 14.3

SPEC license #: 2 | Tested by: Compaq NH | Test date: Sep-2000 | Hardware Avail: Apr-1999 | Software Avail: Jul-2000

							Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio		
45	40	35	30	25	20	15	10	5	168.wupwise	4	468	15.9	4	440	16.9
									171.swim	4	815	17.6	4	815	17.6
									172.mgrid	4	692	12.1	4	641	13.0
									173.applu	4	925	10.5	4	828	11.8
									177.mesa	4	354	18.4	4	326	19.9
									178.galgel	4	977	13.8	4	580	23.2
									179.art	4	343	35.2	4	287	42.1
									183.quake	4	857	7.04	4	842	7.16
									187.facerec	4	458	19.2	4	384	23.0
									188.ammmp	4	854	12.0	4	854	12.0
									189.lucas	4	595	15.6	4	595	15.6
									191.fma3d	4	688	14.2	4	680	14.3
									200.sixtrack	4	568	8.99	4	565	9.04
									301.apsi	4	811	14.9	4	816	14.8

Hardware

CPU: Alpha 21264
 CPU MHz: 500
 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: 4MB 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.quake: kcc -fast -ckapargs='-arl=4' -xtaso_short
 187.facerec: f90 -fast -O4
 188.ammmp: 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