



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.quake	1	563	2.68	1	565	2.67
187.facerec	1	231	9.53	1	194	11.4
188.amp	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.quake: kcc -fast -ckapargs='-arl=4' -xtaso_short
 187.facerec: f90 -fast -O4
 188.amp: 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