CFP2000 Result

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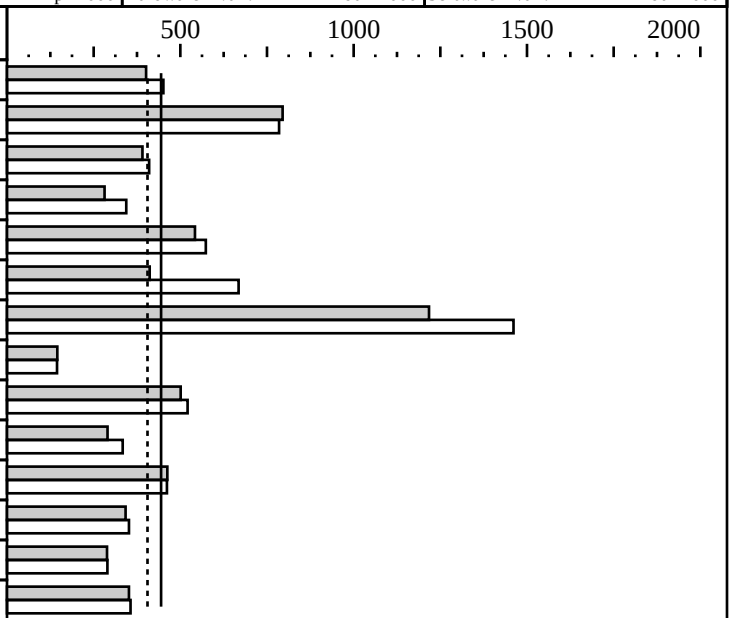
Compaq Computer Corporation
AlphaServer GS320 Model 6/731

SPECfp2000 = 444

SPECfp_base2000 = 405

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	399	401	355	451
171.swim	3100	390	795	395	785
172.mgrid	1800	461	391	439	410
173.applu	2100	746	281	610	344
177.mesa	1400	258	542	244	574
178.galgel	2900	705	412	434	668
179.art	2600	214	1217	178	1461
183.equake	1300	896	145	901	144
187.facerec	1900	379	501	365	521
188.ammp	2200	759	290	659	334
189.lucas	2000	432	463	434	461
191.fma3d	2100	614	342	597	352
200.sixtrack	1100	381	289	380	290
301.apsi	2600	739	352	730	356



Hardware

CPU:	Alpha 21264A
CPU MHz:	731
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 1 core/chip
CPU(s) orderable:	Up to 32 by 4
Parallel:	No
Primary Cache:	64KB(I)+64KB(D) on chip
Secondary Cache:	4MB off chip per CPU
L3 Cache:	None
Other Cache:	None
Memory:	4GB
Disk Subsystem:	mfs (Memory File System)
Other Hardware:	Ethernet

Software

Operating System:	Tru64 Unix T5.1-9 (Release for GS160,GS320)
Compiler:	Compaq C T6.3-120-44A2I Compaq Fortran V5.3 /usr/bin/f77: fort (not fort90) KAP Fortran V4.2 KAP C 4.0
File System:	mfs
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: -v -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

 Compaq C T6.3 is posted at http://www.unix.digital.com/dtk/
 It has been available as an ADK (Advanced Developers' Kit)
 since February, 2000; the final version will be posted
 in July, 2000.
 The SPEC CPU2000 binaries were compiled under Unix V4.0F.
 sysconfigtab settings:
            max_proc_per_user = 4096
          max_threads_per_user = 4096
         per_proc_data_size     = 21474836480
    max_per_proc_data_size     = 21474836480
         per_proc_address_space = 21474836480
    max_per_proc_address_space = 21474836480

Tru64 Unix V5.1 will ship in Jul-2000 for use on the GS160, GS320 platforms;
the final version will ship Sep-2000.

Submitted_by: henning@perfom.zko.dec.com
Submitted: Thu May 11 19:21:35 2000
Submission: cpu2000-20000511-00100.sub
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