CFP2000 Result

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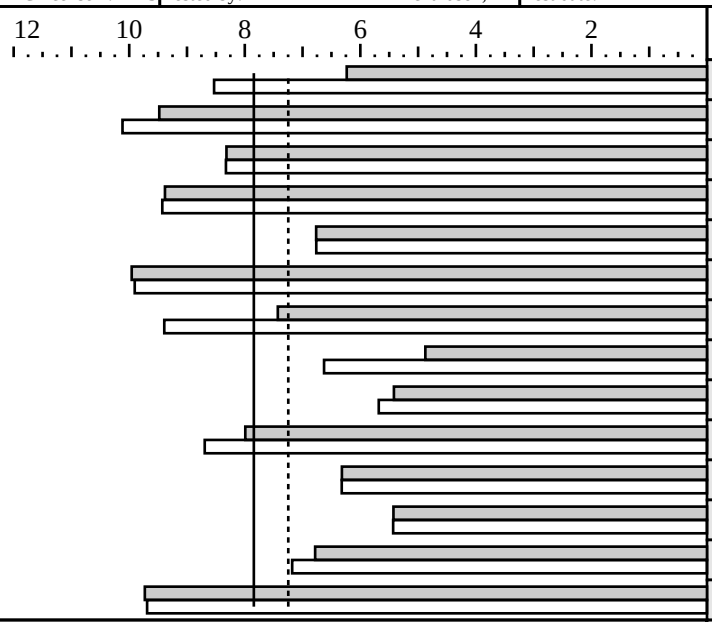
Hewlett-Packard Company
HP 9000 Model N4000

SPECfp_rate2000 = 7.84

SPECfp_rate_base2000 = 7.25

SPEC license #: 3 | Tested by: HP Richardson, TX | Test date: Mar-2000 | Hardware Avail: Apr-2000 | Software Avail: Apr-2000



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	2	595	6.24	2	435	8.53
171.swim	2	759	9.48	2	711	10.1
172.mgrid	2	502	8.32	2	502	8.33
173.applu	2	519	9.38	2	517	9.43
177.mesa	2	480	6.76	2	480	6.76
178.galgel	2	676	9.96	2	679	9.90
179.art	2	812	7.43	2	642	9.39
183.equake	2	619	4.87	2	455	6.63
187.facerec	2	813	5.42	2	776	5.68
188.ammp	2	639	7.99	2	587	8.69
189.lucas	2	734	6.32	2	734	6.32
191.fma3d	2	898	5.43	2	897	5.43
200.sixtrack	2	376	6.78	2	355	7.18
301.apsi	2	620	9.73	2	622	9.69

Hardware

CPU:	552 MHz PA-RISC 8600
CPU MHz:	552
FPU:	Integrated
CPU(s) enabled:	2 cores, 2 chips, 1 core/chip
CPU(s) orderable:	1-8
Parallel:	--
Primary Cache:	512KBI+1MBD (on chip)
Secondary Cache:	None
L3 Cache:	None
Other Cache:	None
Memory:	8GB
Disk Subsystem:	1x9GB FC 10,000 rpm
Other Hardware:	--

Software

Operating System:	HP-UX B.11.00
Compiler:	HP92453-01 A.11.01.02 HP C Compiler HP-UX f90 19990722 (140507) B.11.01.08 HP-UX f77 971027 (162928) B.11.00.01
File System:	HP-UX VxFS
System State:	Multi-user

Notes/Tuning Information

```
Portability flags:
cc: -Ae
168.wupwise: -K
178.galgel: +source=fixed

Base Flags:
f90: +O3   +Onofltacc -Wl,-a,archive -Wl,+FPD
cc: +Oall +Odataprefetch -Wl,-a,archive +I/+P

Peak flags:
168.wupwise: f77 +DA2.0 +DS2.0 +O4 +Odataprefetch +Onofltacc
171.swim: f77 +DA2.0 +DS2.0 +O4 +Odataprefetch +Ocachepadcommon +Oloop_unroll
172.mgrid: +O3 +Odataprefetch +Onofltacc -Wl,+FPD -Wl,-a,archive
173.applu: +O3 +Odataprefetch +Onofltacc -Wl,+FPD -Wl,-a,archive
177.mesa: +I/+P +Oall +Odataprefetch -Wl,+FPD -Wl,-a,archive
178.galgel: +O3 +Odataprefetch +Onofltacc -Wl,+FPD -Wl,-a,archive
179.art: +Oall +Odataprefetch +Onofltacc +Optrs_strongly_typed -Wl,+FPD -Wl,-a,archive +I/+P
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Notes/Tuning Information (Continued)

```
183.equake: +Oall +Odataprefetch +Optrs_strongly_typed
187.facerec: +O2 +Ofastaccess +Omultiprocessor -Wl,+FPD -Wl,-a,archive -Wl,/opt/langtools/lib/fastmem.o
188.ammp: +Oall +Odataprefetch +Optrs_strongly_typed +I/+P
189.lucas: +O3 +Odataprefetch +Onofltacc +Omultiprocessor
191.fma3d: +O3 +Odataprefetch +Onofltacc -Wl,+FPD -Wl,-a,archive
200.sixtrack: f90 +Oall +Ofastaccess +Oloop_block +Omultiprocessor +Onofltacc
              LIBS = -Wl,+FPD -Wl,-a,archive -Wl,/opt/langtools/lib/fastmem.o
301.apsi: +O3 +Odataprefetch +Onofltacc -Wl,+FPD -Wl,-a,archive
Kernel Tunables:
vps_pagesize=256, vps_ceiling=256
```