CFP2000 Result

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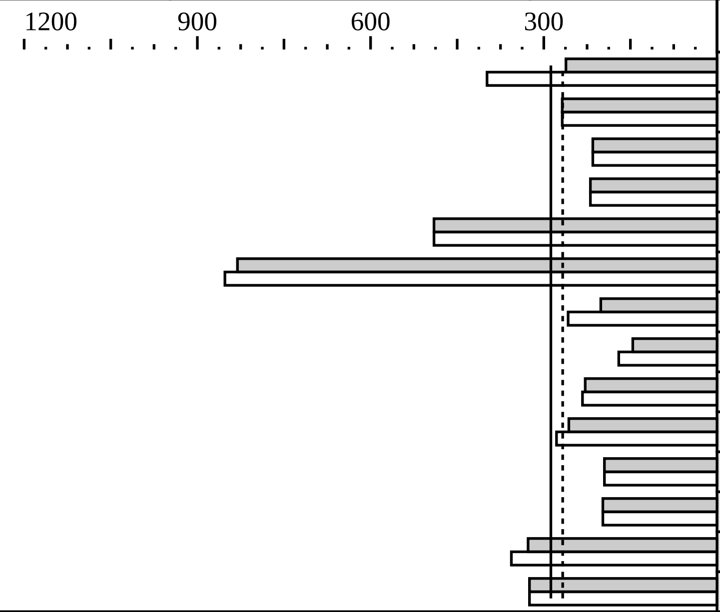
Hewlett-Packard Company

HP Superdome 64-way (875MHz PA-8700+)

SPECfp_rate2000 = 288

SPECfp_rate_base2000 = 267

SPEC license #: 3	Tested by: HP	Test date: Jun-2002	Hardware Avail: Jul-2002	Software Avail: Jun-2002



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	64	454	262	64	298	398
171.swim	64	859	268	64	859	268
172.mgrid	64	621	215	64	621	215
173.applu	64	711	219	64	711	219
177.mesa	64	212	490	64	212	490
178.galgel	64	259	831	64	253	852
179.art	64	959	201	64	749	258
183.equake	64	662	146	64	567	170
187.facerec	64	618	228	64	605	233
188.ammp	64	636	257	64	588	278
189.lucas	64	761	195	64	761	195
191.fma3d	64	789	198	64	789	198
200.sixtrack	64	250	327	64	229	356
301.apsi	64	594	325	64	594	325

Hardware

CPU:	PA-8700+
CPU MHz:	875
FPU:	Integrated
CPU(s) enabled:	64 cores, 64 chips, 1 core/chip
CPU(s) orderable:	8 to 64
Parallel:	No
Primary Cache:	0.75MB(I) + 1.5MB(D) on chip
Secondary Cache:	None
L3 Cache:	None
Other Cache:	None
Memory:	256GB (512x512MB DIMMs total)
Disk Subsystem:	5x9GB Fibrechannel (striped)
Other Hardware:	None

Software

Operating System:	HP-UX 11i TCOE B.11.11.0206.5
Compiler:	HP ANSI C 11.11.04 Fortran90 11.11.42 PHCO_24402 libc cumulative header file patch PHCO_26124 libc cumulative patch PHSS_24207 libm patch PHSS_25716 shared libF90 B.11.01.12 PHSS_25719 libCL patch PHSS_26263 ld(1) and linker tools cumulative patch PHSS_26264 linker startup code/SSLIC ELF support PHSS_26792 Ansi C compiler cumulative patch PHSS_26793 +O4/PBO optimizer cumulative patch PHSS_27072 Fortran90 B.11.01.53 patch
File System:	OnLine JFS
System State:	Single-user

Notes/Tuning Information

```
 Portability flags:
  178.galgel: +source=fixed

Baseline compile flags:
  fortran: +Ofaster -Wl,-a,archive
  C      : +I/+P +O4 +Odataprefetch -Wl,-a,archive


Peak compile flags:
  168.wupwise: (ONESTEP) +cat +O3 +Odataprefetch +Onofltacc
               -Wl,+FPD -Wl,-a,archive
     171.swim: basepeak=true
    172.mgrid: basepeak=true
    173.applu: basepeak=true
     177.mesa: basepeak=true
   178.galgel: +Ofaster +Oloop_unroll=6 -Wl,-a,archive
```

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Notes/Tuning Information (Continued)

```
        179.art: +I/+P +Oall +Onodataprefetch +Onofltacc +Optrs_strongly_typed
                 +Opromote_indirect_calls -Wl,+FPD -Wl,-a,archive
     183.equake: +O4 +Olibcalls +Odataprefetch +Optrs_strongly_typed
                 +Opromote_indirect_calls -Wl,+FPD -Wl,-a,archive
    187.facerec: (ONESTEP) +cat +O3 +Ofastaccess -Wl,+FPD -Wl,-a,archive
       188.ammp: +I/+P +Oall +Odataprefetch +Optrs_strongly_typed
                 +Opromote_indirect_calls -Wl,+FPD -Wl,-a,archive
      189.lucas: basepeak=true
      191.fma3d: basepeak=true
   200.sixtrack: (ONESTEP) +cat +O3 +Onolibcalls +Onolimit +Onoinline
                 +Onodataprefetch -Wl,+FPD -Wl,-a,archive
       301.apsi: basepeak=true

Hardware configuration notes:

  System was configured as a single partition with 16 cells
  boot time firmware tunable DataPrefetch enabled (default)

Operating system configuration notes:

  PHKL_25778 LVM cumulative patch
  PHKL_25886 Filesystem buffercache performance fix
  PHKL_26230 VxFS cumulative patch

  vps_pagesize 4096, vps_ceiling 16384
  dbc_min_pct=10, dbc_max_pct=10
  maxssiz=0x10000000

  filesystem used for spec runs mounted tmplog,mincache=tmpcache
```