



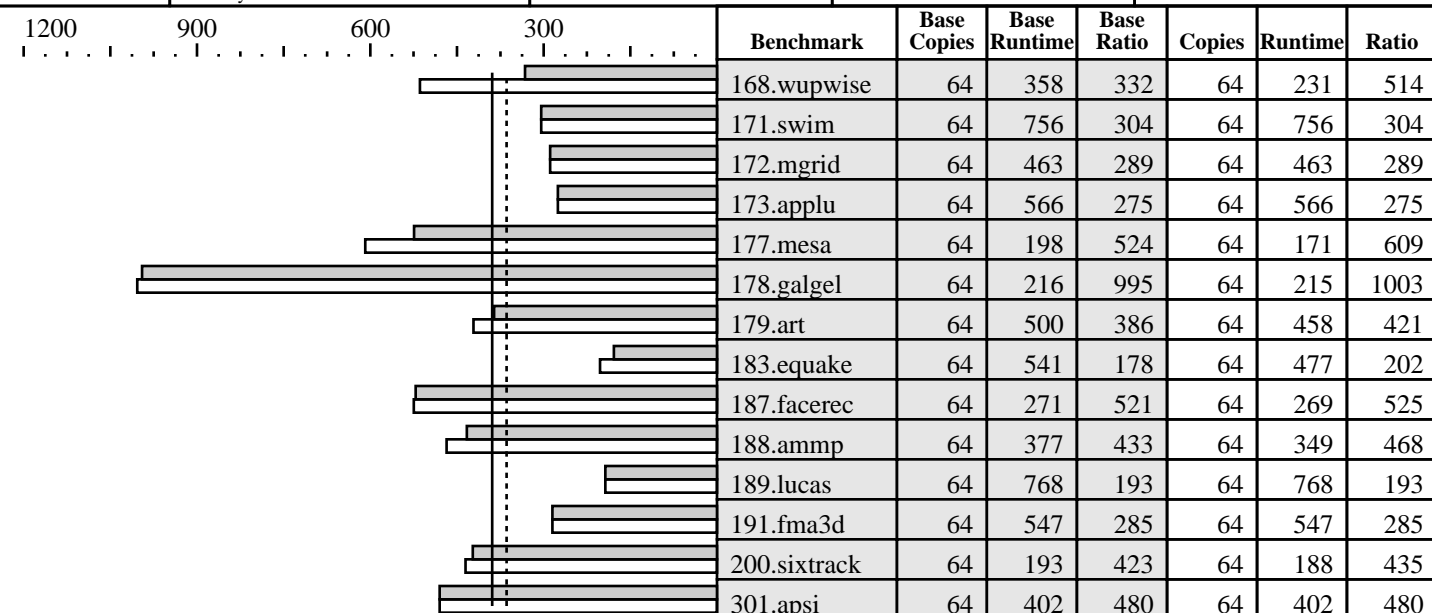
CFP2000 Result

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Hewlett-Packard Company
HP 9000 Superdome (1000MHz PA-8800, 16 cells)

SPECfp_rate2000 = **389**
SPECfp_rate_base2000 = **364**

SPEC license #: 3 | Tested by: HP Richardson | Test date: Jan-2004 | Hardware Avail: Mar-2004 | Software Avail: Feb-2004



Hardware

CPU: PA-8800
 CPU MHz: 1000
 FPU: Integrated
 CPU(s) enabled: 64 cores, 32 chips, 2 cores/chip
 CPU(s) orderable: 4-128 cores (up to 64/partition)
 Parallel: no
 Primary Cache: 0.75MBI + 0.75MBD (on chip) per core
 Secondary Cache: 32MB (off chip) shared by 2 cores
 L3 Cache: N/A
 Other Cache: N/A
 Memory: 256GB (512 * 512MB DIMMs)
 Disk Subsystem: 10x36GB 10K rpm SCSI (striped)
 Other Hardware: N/A

Software

Operating System: HP/UX11i-TCOE B.11.11.0312
 Compiler: HP C/ANSI C B.11.11.08
 HP Fortran90 Compiler B.11.01.74
 File System: OnLineJFS
 System State: Multi-user

Notes/Tuning Information

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

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

Peak compile flags:
  168.wupwise: (ONESTEP) +cat +Ofaster -Wl,-a,archive
  171.swim: basepeak=true
  172.mgrid: basepeak=true
  173.applu: basepeak=true
  177.mesa: +I/+P +O4 +Odataprefetch -Wl,-a,archive
  178.galgel: +Ofaster +Oloop_unroll=6 -Wl,-a,archive
  179.art: +I/+P +Oall +Optrs_strongly_typed +Opromote_indirect_calls -Wl,-a,archive
  183.equake: +O4 +Olibcalls +Odataprefetch +Optrs_strongly_typed
```



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Notes/Tuning Information (Continued)

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

Kernel Tunables:

```
dbc_max_pct=20
dbc_min_pct=20
maxdsiz=3221225472
maxssiz=401604608
maxdsiz_64bit=4396972761584
maxssiz_64bit=1073741824
vps_pagesize=4096
vps_ceiling=16384
```

Other notes:

The system under test had the HP-UX 11i v1 December 2003
Technical Computing Operating Environment (version 11.11.0312)
and DART63 (December 2003) compilers installed, with the
following patches applied:

```
GOLDAPPS11i Gold Applications Patches for HP-UX 11i v1, December 2003
GOLDBASE11i Gold Base Patches for HP-UX 11i v1, December 2003
HWEnable11i Hardware Enablement Patches for HP-UX 11i v1, December 2003
HWTEST1111 Hardware Enablement Patches for PA-8800 (prerelease)
PHSS_29483 aC++ compiler cumulative patch (A.03.52)
PHSS_30002 Fortran90 cumulative patch (B.11.01.74)
```

System was configured with all memory interleaved

System configured as a single partition with 16 cells and
2 PA-8800 modules (each with 2 processors) per cell

Filesystem used for spec runs mounted "tmplog"