CINT2000 Result

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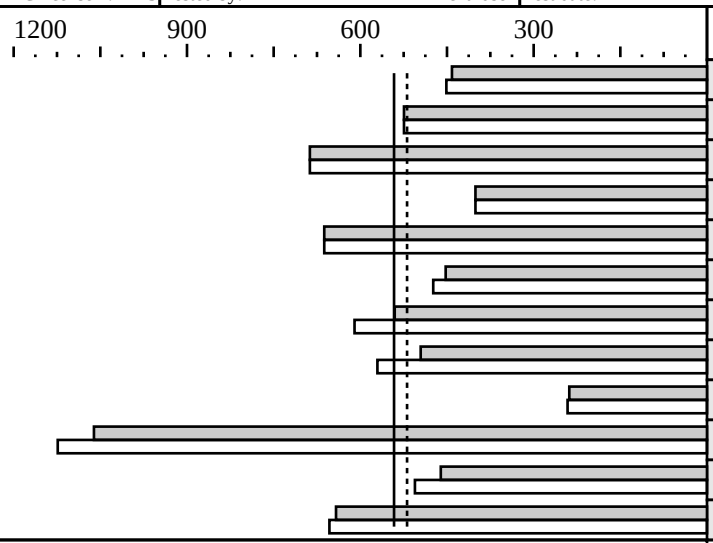
Hewlett-Packard Company

HP 9000 Superdome (1000MHz PA-8800, 8 cells)

SPECint_rate2000 = 542

SPECint_rate_base2000 = 519

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



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	64	235	441	64	230	451
175.vpr	64	198	524	64	198	524
176.gcc	64	119	687	64	119	687
181.mcf	64	333	401	64	333	401
186.crafty	64	112	662	64	112	662
197.parser	64	295	452	64	282	474
252.eon	64	179	540	64	158	610
253.perlbmk	64	270	496	64	234	570
254.gap	64	343	238	64	338	241
255.vortex	64	133	1061	64	126	1124
256.bzip2	64	242	461	64	220	506
300.twolf	64	347	642	64	341	654

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:	128GB (256 * 512MB DIMMs)
Disk Subsystem:	10x36GB 10K rpm SCSI (striped)
Other Hardware:	N/A

Software

Operating System:	HPUX11i-TCOE B.11.11.0312
Compiler:	HP aC++ Compiler A.03.52 HP C/ANSIC B.11.11.08
File System:	OnLineJFS
System State:	Multi-user

Notes/Tuning Information

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Portability flags:
  176.gcc: -DHOST_WORDS_BIG_ENDIAN
  186.crafty: -DHP
  252.eon: -DFMAX_IS_DOUBLE
  253.perlbmk: -DSPEC_CPU2000_HP
  254.gap: -DSPEC_CPU2000_HP -DSYS_IS_USG -DSYS_HAS_IOCTL_PROTO
           -DSYS_HAS_TIME_PROTO -DSYS_HAS_CALLOC_PROTO

Baseline compile flags:
  C      : +I/+P +Oall +Ostatic_prediction -Wl,-a,archive
  C++    : +I/+P +Oall +Ostatic_prediction -Wl,-a,archive

Peak compile flags:
     164.gzip: +I/+P +Oall +Optrs_strongly_typed +Oinline_budget=800
               -Wl,-a,archive +Ostatic_prediction
      175.vpr: basepeak=true
      176.gcc: basepeak=true
      181.mcf: basepeak=true
   186.crafty: basepeak=true
```

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Notes/Tuning Information (Continued)

```
     197.parser: +I/+P +Oall +Odataprefetch +ESfic +Oinline_budget=400
                 +Owhole_program_mode -Wl,-a,archive +Ostatic_prediction
        252.eon: +I/+P +noeh +O4 +Optrs_strongly_typed +Olibcalls +Oentrysched
                 +A +ESfic -Wl,-a,archive +Ostatic_prediction
    253.perlbmk: +I/+P +Oall +ESlit +ESfic +Optrs_strongly_typed
                 +Opromote_indirect_calls -Wl,-a,archive +Ostatic_prediction
                 linked with /opt/langtools/lib/fastmem.o
        254.gap: +I/+P +Oall +ESlit +ESfic +Optrs_strongly_typed
                 +Opromote_indirect_calls -Wl,-a,archive +Ostatic_prediction
     255.vortex: +I/+P +Oall +Oinline_budget=800 +Optrs_strongly_typed
                 -Wl,-a,archive +Ostatic_prediction
      256.bzip2: +I/+P +Oall +Odataprefetch +Optrs_strongly_typed +Owhole_program_mode
                +Onoptrs_to_globals +Oinline_budget=80 -Wl,-a,archive +Ostatic_prediction
     300.twolf: +I/+P +Oall +Optrs_strongly_typed -Wl,-a,archive +Ostatic_prediction

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
  HWETEST1111 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 8 cells and
    4 PA-8800 modules (each with 2 processors) per cell

  Filesystem used for spec runs mounted "tmplog"
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