CFP2000 Result

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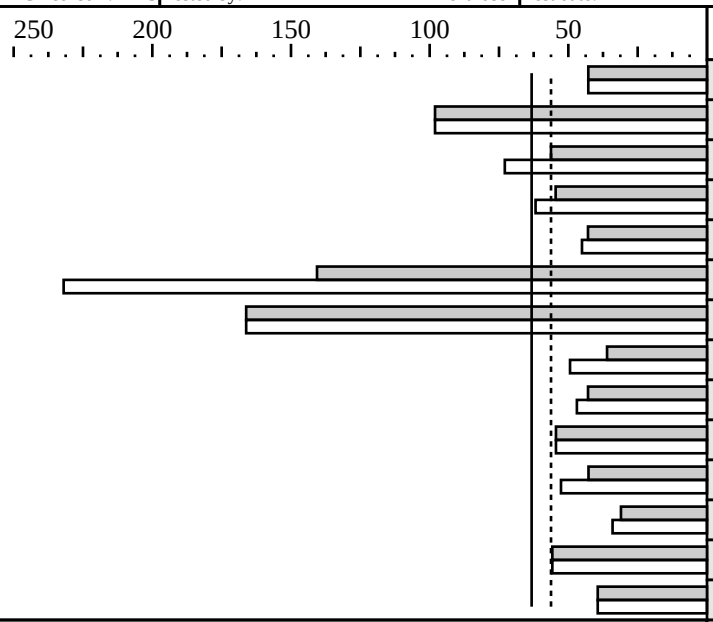
Hewlett-Packard Company

HP Integrity rx7620 (1300 MHz Itanium 2)

SPECfp_rate2000 = 63.2

SPECfp_rate_base2000 = 56.2

SPEC license #: 3 | Tested by: HP Richardson | Test date: Nov-2003 | Hardware Avail: Nov-2003 | Software Avail: Oct-2003



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	4	173	42.8	4	173	42.8
171.swim	4	147	98.1	4	147	98.1
172.mgrid	4	148	56.3	4	115	72.9
173.applu	4	179	54.6	4	158	61.8
177.mesa	4	151	42.9	4	144	45.1
178.galgel	4	95.7	141	4	58.0	232
179.art	4	72.6	166	4	72.6	166
183.equake	4	167	36.0	4	122	49.4
187.facerec	4	206	42.9	4	188	46.9
188.ammp	4	187	54.5	4	187	54.5
189.lucas	4	217	42.7	4	176	52.6
191.fma3d	4	314	31.0	4	286	34.1
200.sixtrack	4	91.5	55.8	4	91.5	55.8
301.apsi	4	306	39.4	4	306	39.4

Hardware

CPU:	Intel Itanium 2
CPU MHz:	1300
FPU:	Integrated
CPU(s) enabled:	4 cores, 4 chips, 1 core/chip
CPU(s) orderable:	2,4,6,8
Parallel:	no
Primary Cache:	16KBI + 16KBD (on chip) per CPU
Secondary Cache:	256KB (on chip) per CPU
L3 Cache:	3.0MB (on chip) per CPU
Other Cache:	N/A
Memory:	16GB (32 * 512MB DIMMs)
Disk Subsystem:	2x18GB 10K rpm SCSI (striped)
Other Hardware:	N/A

Software

Operating System:	HPUX11i-TCOE B.11.23
Compiler:	HP C/ANSI C Compiler A.05.52 HP Fortran90 Compiler B.11.23
File System:	vxfs
System State:	Multi-user

Notes/Tuning Information

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

Base Flags
  f90      : +Oprofile=collect:all/+Oprofile=use +Ofaster -minshared
  C        : +Oprofile=collect:all/+Oprofile=use +Ofaster +Otype_safety=ansi -exec

Peak Flags:

  168.wupwise   : basepeak=true
  171.swim      : basepeak=true
  172.mgrid     : +Ofaster -minshared +Oprefetch_latency=1280
  173.applu     : +Ofast +O3 -minshared
  177.mesa      : +Oprofile=collect:all/+Oprofile=use +Ofaster +Otype_safety=ansi
                  -exec +Oprefetch_latency=1280
  178.galgel    : +Oprofile=collect:all/+Oprofile=use +Ofast +Onoptrs_to_globals
                  -minshared +O3 +Oloop_unroll=11 +DD64
```

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Notes/Tuning Information (Continued)

```
                RM_SOURCES = lapak.f90 LIBS = -llapack
  179.art       : basepeak=true
  183.equake    : +Oprofile=collect:all/+Oprofile=use +Ofaster +Onorecovery
                  +Onoptrs_to_globals +Otype_safety=strong -exec
                  LIBS = -Bprotected /opt/langtools/lib/hpux32/effmem.o
  187.facerec   : +Ofast +Onoptrs_to_globals -minshared +O3 +Oloop_unroll=2
  188.ammp      : basepeak=true
  189.lucas     : +Ofast +Onoptrs_to_globals -minshared +O3
  191.fma3d     : +Oprofile=collect:all/+Oprofile=use +Ofast +Onoptrs_to_globals
                  -minshared +O3
  200.sixtrack  : basepeak=true
  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

The system under test had the HP-UX 11i v2 (version 11.23)
  Technical Computing Operating Environment and compilers
  installed, with the following patches applied:

  PHSS_29655  aC++ compiler (A.05.52)
  PHSS_29656  HP C Compiler (A.05.52)
  PHSS_29657  u2comp/be/plugin library Patch
  PHSS_29663  Fortran Product Patch, v2.7 to v2.7.2

Other notes:

  System was configured with 1/2 of memory interleaved and
    1/2 of memory local to each cell

  System configured as a single partition with 2 cells and
    2 processors per cell (unused processors disabled
    prior to booting with firmware command "cpuconfig")

  Processes were assigned to localities using the
    HP-UX mpsched utility

  Filesystem used for spec runs mounted "tmplog"
```