CFP2000 Result

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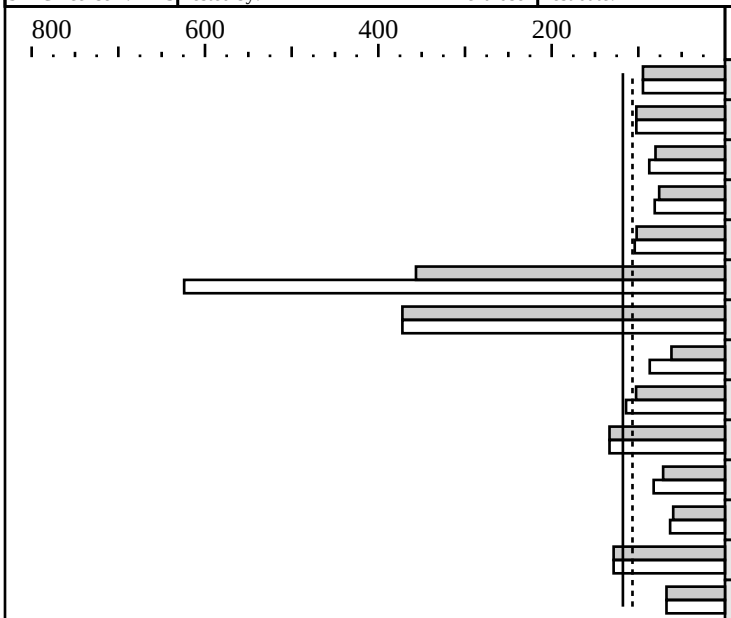
Hewlett-Packard Company

HP Integrity rx7620 (1500 MHz Itanium 2)

SPECfp_rate2000 = 118

SPECfp_rate_base2000 = 107

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



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	8	157	94.7	8	157	94.7
171.swim	8	281	102	8	281	102
172.mgrid	8	208	80.2	8	191	87.4
173.applu	8	257	75.9	8	240	81.1
177.mesa	8	127	102	8	125	104
178.galgel	8	75.5	357	8	43.1	624
179.art	8	64.8	372	8	64.8	372
183.equake	8	195	61.8	8	139	86.8
187.facerec	8	172	103	8	154	114
188.ammp	8	153	133	8	153	133
189.lucas	8	260	71.4	8	225	82.3
191.fma3d	8	326	59.8	8	308	63.3
200.sixtrack	8	79.4	129	8	79.4	129
301.apsi	8	357	67.5	8	357	67.5

Hardware

CPU:	Intel Itanium 2
CPU MHz:	1500
FPU:	Integrated
CPU(s) enabled:	8 cores, 8 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:	6.0MB (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
      4 processors per cell

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

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