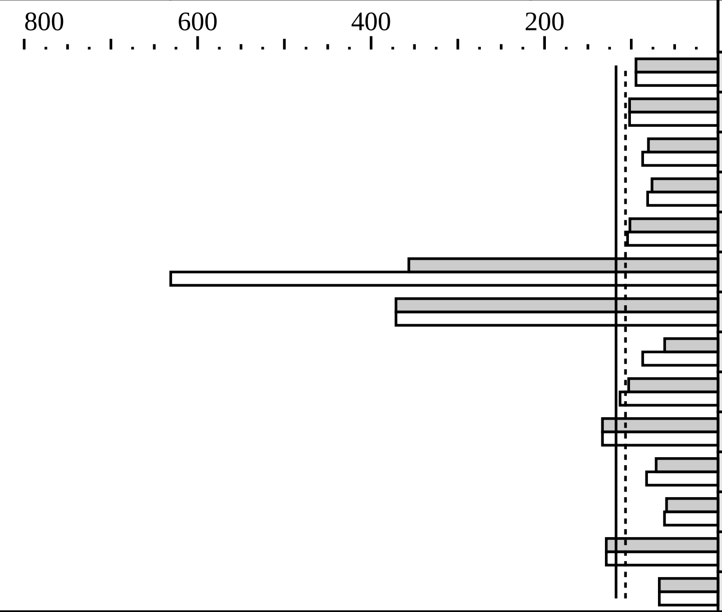
CFP2000 Result

Hewlett-Packard Company
HP Integrity rx8620 (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	94.6	8	157	94.6
171.swim	8	282	102	8	282	102
172.mgrid	8	208	80.2	8	192	86.9
173.applu	8	256	76.1	8	240	81.1
177.mesa	8	128	102	8	125	104
178.galgel	8	75.5	356	8	42.6	631
179.art	8	65.0	371	8	65.0	371
183.equake	8	196	61.5	8	139	86.8
187.facerec	8	171	103	8	156	113
188.ammp	8	153	133	8	153	133
189.lucas	8	260	71.3	8	225	82.4
191.fma3d	8	329	59.3	8	316	61.7
200.sixtrack	8	79.2	129	8	79.2	129
301.apsi	8	357	67.7	8	357	67.7

Hardware

CPU:	Intel Itanium 2
CPU MHz:	1500
FPU:	Integrated
CPU(s) enabled:	8 cores, 8 chips, 1 core/chip
CPU(s) orderable:	2,4,6,8,10,12,14,16
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:	10x36GB 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"
```