CFP2000 Result

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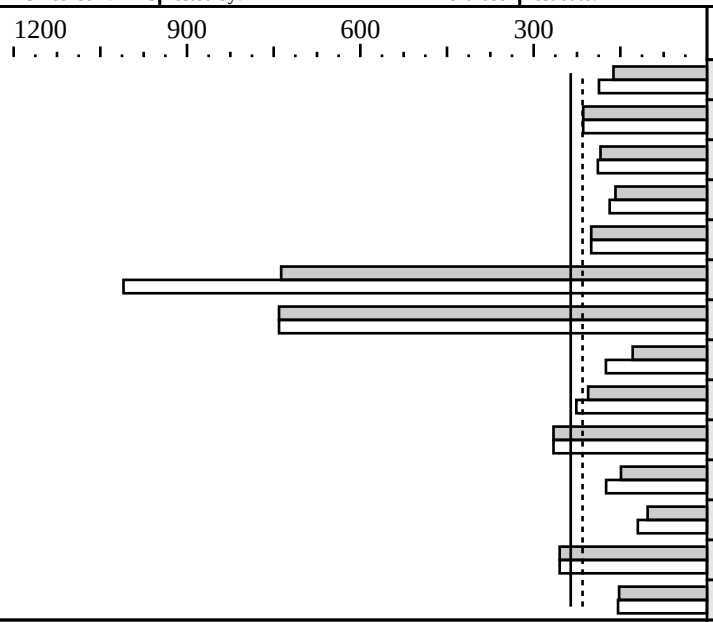
Hewlett-Packard Company

HP Integrity Superdome 16-way (1500 MHz Itanium 2)

SPECfp_rate2000 = 236

SPECfp_rate_base2000 = 215

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



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	16	183	162	16	159	187
171.swim	16	269	214	16	269	214
172.mgrid	16	181	184	16	177	189
173.applu	16	246	158	16	231	168
177.mesa	16	130	200	16	130	200
178.galgel	16	73.0	737	16	53.3	1010
179.art	16	65.1	741	16	65.1	741
183.equake	16	188	129	16	138	175
187.facerec	16	171	206	16	156	226
188.ammp	16	154	266	16	154	266
189.lucas	16	249	149	16	213	175
191.fma3d	16	379	103	16	326	120
200.sixtrack	16	80.1	255	16	80.1	255
301.apsi	16	317	152	16	313	154

Hardware

CPU:	Intel Itanium 2
CPU MHz:	1500
FPU:	Integrated
CPU(s) enabled:	16 cores, 16 chips, 1 core/chip
CPU(s) orderable:	6 to 16 by 2
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:	64GB (128 * 512MB DIMMs)
Disk Subsystem:	10x36GB 10K RPM SCSI disk (striped)
Other Hardware:	N/A

Software

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

Notes/Tuning Information

```
C compiler invoked as:
  /opt/ansic/bin/cc -AOe

Portability Flags
  178.galgel: +source=fixed

Base Flags
  f90  : +Oprofile=collect:all/+Oprofile=use +Ofast +O3 -minshared
  C        : +Oprofile=collect:all/+Oprofile=use +Ofaster -exec

Peak Flags:

  168.wupwise   : +Ofast +Onoptrs_to_globals -minshared +O4 +Oinline_budget=50000
  171.swim      : basepeak=true
  172.mgrid     : +Ofast +O3 -minshared +DSblended +DD64
  173.applu     : +Ofast +O3 -minshared
  177.mesa      : basepeak=true
```

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Notes/Tuning Information (Continued)

```
    178.galgel    : +Ofast +Onoptrs_to_globals -minshared +O3 +Oloop_unroll=2 +DD64
                    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 -Wl,-aarchive_shared
                    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 +Oinline_budget=100
    191.fma3d     : +Ofast +Onoptrs_to_globals -minshared +O3
    200.sixtrack  : basepeak=true
    301.apsi      : +Ofast +Onoptrs_to_globals -minshared +O3

  Kernel Tunables:
    dbc_max_pct=20
    dbc_min_pct=20
    maxdsiz=3221225472
    maxssiz=401604608
    maxdsiz_64bit=4396972769279
    maxssiz_64bit=1073741824
    vps_pagesize=4096
    vps_ceiling=16384

  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 4 cells and
      4 processors per cell

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

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