



CINT2000 Result

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Hewlett-Packard Company
HP Integrity rx8620 (1300 MHz Itanium 2)

SPECint_rate2000 = 183
SPECint_rate_base2000 = 181

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
164.gzip	16	171	152	16	171	152
175.vpr	16	169	154	16	165	157
176.gcc	16	93.2	219	16	93.2	219
181.mcf	16	257	130	16	257	130
186.crafty	16	96.0	193	16	93.8	198
197.parser	16	233	143	16	233	143
252.eon	16	98.0	246	16	95.0	254
253.perlbnk	16	179	186	16	172	194
254.gap	16	142	144	16	142	144
255.vortex	16	127	278	16	125	283
256.bzip2	16	161	173	16	161	173
300.twolf	16	271	205	16	263	211

Hardware

CPU: Intel Itanium 2
CPU MHz: 1300
FPU: Integrated
CPU(s) enabled: 16 cores, 16 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: 3.0MB (on chip) per CPU
Other Cache: N/A
Memory: 32GB (64 * 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 aC++ Compiler A.05.52
File System: vxfs
System State: Multi-user

Notes/Tuning Information

Portability Flags

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

Base Flags

all : +Oprofile=collect:all/+Oprofile=use
C : +Ofaster -exec +Odatalayout
C++ : +Ofaster +inline_level 2 -minshared

Peak Flags

164.gzip : basepeak=true
175.vpr : +Oprofile=collect:all/+Oprofile=use +Ofaster -exec +Odatalayout
+Onoptrs_to_globals +Onorecovery
176.gcc : basepeak=true
181.mcf : basepeak=true
186.crafty : +Oprofile=collect:all/+Oprofile=use +Ofaster -exec +Odatalayout



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Notes/Tuning Information (Continued)

```

+Otype_safety=ansi
197.parser : basepeak=true
252.eon : +Oprofile=collect:all/+Oprofile=use +Ofaster +inline_level 2
        -minshared +Otype_safety=ansi
253.perlbnk : +Oprofile=collect:all/+Oprofile=use +Ofaster -exec +Odatalayout
        +Onoptrs_to_globals
        LIBS = /opt/langtools/lib/hpux32/fastmem.o
254.gap : basepeak=true
255.vortex : +Oprofile=collect:all/+Oprofile=use +Ofaster -exec +Odatalayout
        +Onoptrs_to_globals +Onorecovery
256.bzip2 : basepeak=true
300.twolf : +Oprofile=collect:all/+Oprofile=use +Ofaster -exec +Odatalayout
        +Onoptrs_to_globals
        LIBS = /opt/langtools/lib/hpux32/effmem.o

```

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

```

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"