



CINT2000 Result

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ION I2X4 (1.6GHz Itanium 2 processor)

SPECint_rate2000 = 64.9

SPECint_rate_base2000 = 64.5

SPEC license #: 2697 | Tested by: ION | Test date: Jan-2005 | Hardware Avail: Jan-2005 | Software Avail: Dec-2004

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	4	138	47.1	4	138	47.1
175.vpr	4	120	54.3	4	120	54.3
176.gcc	4	69.8	73.1	4	69.8	73.1
181.mcf	4	70.2	119	4	70.2	119
186.crafty	4	77.2	60.1	4	77.2	60.1
197.parser	4	173	48.2	4	173	48.2
252.eon	4	66.5	90.7	4	66.5	90.7
253.perlbnk	4	132	63.3	4	132	63.3
254.gap	4	134	38.2	4	134	38.2
255.vortex	4	91.8	96.0	4	88.3	99.8
256.bzip2	4	122	56.8	4	122	56.8
300.twolf	4	209	66.7	4	201	69.1

Hardware

CPU: Intel Itanium 2 processor
 CPU MHz: 1596
 FPU: Integrated
 CPU(s) enabled: 4 cores, 4 chips, 1 core/chip
 CPU(s) orderable: 1-4
 Parallel: No
 Primary Cache: 16KBI + 16KBD (on chip) per CPU
 Secondary Cache: 256KB (I+D) (on chip) per CPU
 L3 Cache: 9MB (I+D) (on chip) per CPU
 Other Cache: N/A
 Memory: 32 GB (16x2048MB DDR266 DIMMS)
 Disk Subsystem: 1x36GB SCSI (Seagate Cheetah 15k rpm)
 Other Hardware: None

Software

Operating System: Red Hat Enterprise Linux AS 3 Update 4, 2.4.21-27.EL, IPF
 Compiler: Intel(R) C Compiler for Linux 8.1, IPF (Build 20041123)
 Intel(R) C++ Compiler for Linux 8.1, IPF (Build 20041123)
 MicroQuill SmartHeap library 7.01, IPF
 File System: ext3
 System State: Multi-user, run level 3

Notes/Tuning Information

Tested by ION Computer Systems

INT Baseline optimization flags:
 C Programs: -fast -auto_ilp32 +FDO
 C++ programs: -fast +FDO -cxxlib-icc
 +FDO: PASS1=-prof_gen PASS2=-prof_use

INT Peak optimization flags:
 164.gzip: basepeak=yes
 175.vpr: basepeak=yes
 176.gcc: basepeak=yes
 181.mcf: basepeak=yes
 186.crafty: basepeak=yes
 197.parser: basepeak=yes
 252.eon: basepeak=yes
 253.perlbnk: basepeak=yes



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Notes/Tuning Information (Continued)

```
254.gap: basepeak=yes
255.vortex: -fast -auto_ilp32 /opt/SmartHeap_7.01/lib/libsmartheap64.a +FDO
256.bzip2: basepeak=yes
300.twolf: -fast -auto_ilp32 -ansi_alias /opt/SmartHeap_7.01/lib/libsmartheap64.a +FDO
```

Portability Flags:

```
176.gcc: -DSPEC_CPU2000_LP64 -Dalloca=_builtin_alloca
176.gcc: srcalt=64bitgcc35
186.crafty: -DLINUX_i386
252.eon: -DSPEC_CPU2000_LP64 -DHAS_ERRLIST
252.eon: srcalt=stdcpp
253.perlbnk: -DSPEC_CPU2000_LP64 -DSPEC_CPU2000_NEED_BOOL
           -DSPEC_CPU2000_LINUX_IA64 -DSPEC_CPU2000_GLIBC22
254.gap: -DSPEC_CPU2000_LP64 -DSYS_HAS_CALLOC_PROTO -DSYS_IS_USG
         -DSYS_HAS_IOCTL_PROTO -DSYS_HAS_TIME_PROTO -DSYS_HAS_SIGNAL_PROTO
255.vortex: -DSPEC_CPU2000_LP64
255.vortex: srcalt=closed_files
```