SPEC® CINT2006 Result

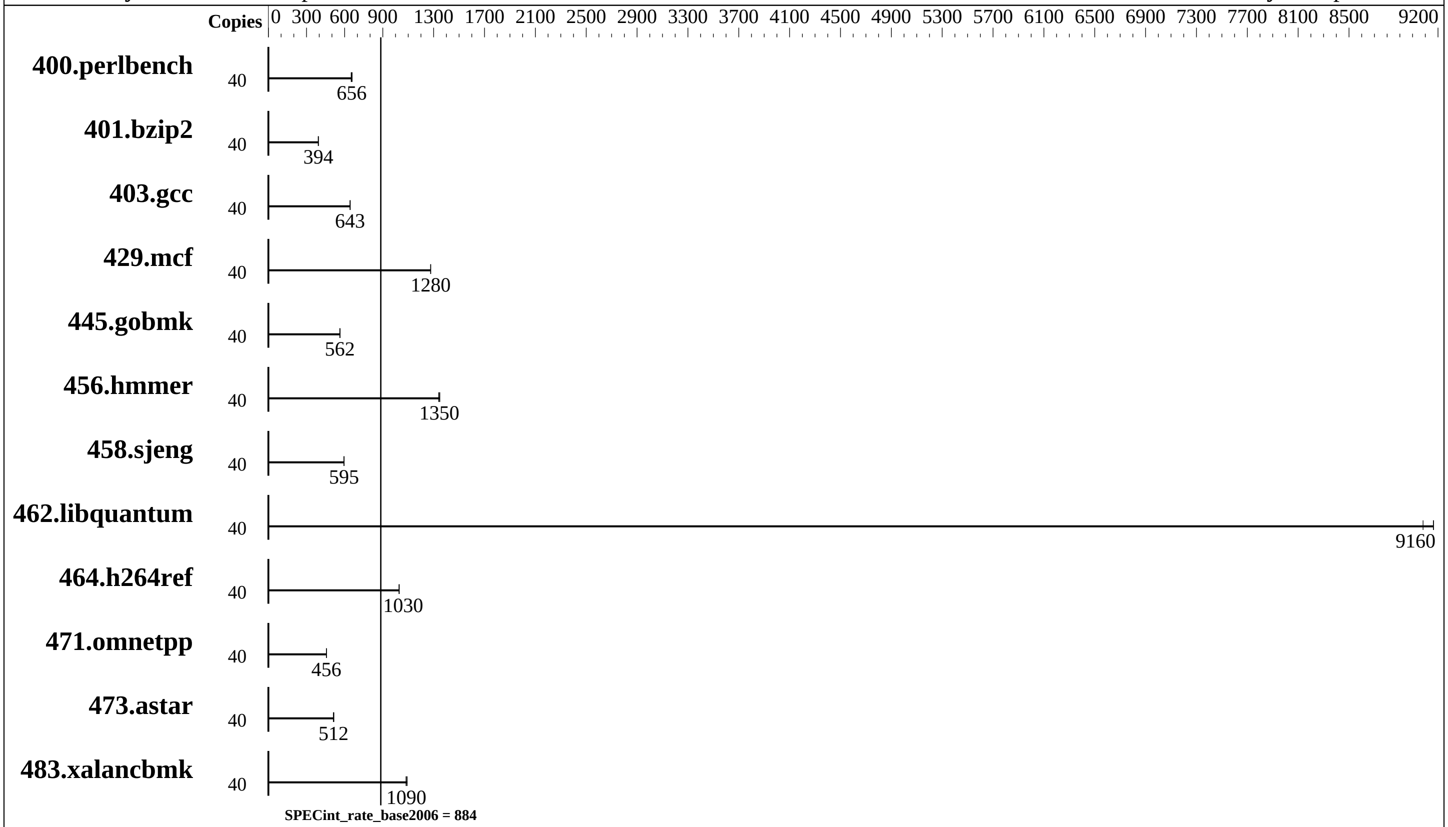
M Computers s.r.o.

HPC S2600WF (Intel Xeon Silver 4114, 2.20 GHz)

SPECint®_rate2006 = Not Run

SPECint_rate_base2006 = 884

CPU2006 license:	4204	**Test date:**	Sep-2017
Test sponsor:	M Computers s.r.o.	**Hardware Availability:**	Jul-2017
Tested by:	M Computers s.r.o.	**Software Availability:**	Apr-2017



Hardware

CPU Name:	Intel Xeon Silver 4114
CPU Characteristics:	Intel Turbo Boost Technology up to 3.00 GHz
CPU MHz:	2200
FPU:	Integrated
CPU(s) enabled:	20 cores, 2 chips, 10 cores/chip, 2 threads/core
CPU(s) orderable:	1,2 chip
Primary Cache:	32 KB I + 32 KB D on chip per core
Secondary Cache:	1 MB I+D on chip per core
L3 Cache:	13.75 MB I+D on chip per chip
Other Cache:	None
Memory:	768 GB (24 x 32 GB 2Rx8 PC4-2666V-R, running at 2400 MT/s)
Disk Subsystem:	1 x 1600 GB SATA SSD
Other Hardware:	None

Software

Operating System:	SUSE Linux Enterprise Server 12 SP2 4.4.21-69-default
Compiler:	C/C++: Version 17.0.4.196 of Intel C/C++ Compiler for Linux
Auto Parallel:	No
File System:	xfs
System State:	Run level 3
Base Pointers:	32-bit
Peak Pointers:	32/64-bit
Other Software:	Microquill SmartHeap V11.2

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Results Table

	Base							Peak						
Benchmark	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	40	600	651	593	659	**596**	**656**							
401.bzip2	40	980	394	985	392	**981**	**394**							
403.gcc	40	**501**	**643**	501	642	500	644							
429.mcf	40	286	1280	286	1280	**286**	**1280**							
445.gobmk	40	747	562	744	564	**746**	**562**							
456.hmmer	40	**277**	**1350**	279	1340	277	1350							
458.sjeng	40	**814**	**595**	814	595	813	595							
462.libquantum	40	90.4	9170	91.3	9080	**90.4**	**9160**							
464.h264ref	40	860	1030	862	1030	**860**	**1030**							
471.omnetpp	40	548	456	**548**	**456**	547	457							
473.astar	40	550	511	**548**	**512**	545	515							
483.xalancbmk	40	255	1080	**254**	**1090**	253	1090							

Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

Submit Notes

```
The numactl mechanism was used to bind copies to processors. The config file option 'submit'
was used to generate numactl commands to bind each copy to a specific processor.
For details, please see the config file.
```

Operating System Notes

```
Stack size set to unlimited using "ulimit -s unlimited"
```

Platform Notes

```
BIOS settings:
Patrol Scrub=Disabled
CPU and Power Performance Policy=Performance
Set Fan Profile=Performance
Sysinfo program /spec/config/sysinfo.rev6993
Revision 6993 of 2015-11-06 (300de342723409e6453f54e8c50448c3)
running on kvasir Fri Sep  1 21:47:36 2017

This section contains SUT (System Under Test) info as seen by
some common utilities.  To remove or add to this section, see:
  http://www.spec.org/cpu2006/Docs/config.html#sysinfo

From /proc/cpuinfo
   model name : Intel(R) Xeon(R) Silver 4114 CPU @ 2.20GHz
      2 "physical id"s (chips)
      40 "processors"
   cores, siblings (Caution: counting these is hw and system dependent.  The
```
Continued on next page

Platform Notes (Continued)

```
      following excerpts from /proc/cpuinfo might not be reliable.  Use with
      caution.)
         cpu cores : 10
         siblings  : 20
         physical 0: cores 0 1 2 3 4 8 9 10 11 12
         physical 1: cores 0 1 2 3 4 8 9 10 11 12
      cache size : 14080 KB

   From /proc/meminfo
      MemTotal:       791028784 kB
      HugePages_Total:       0
      Hugepagesize:       2048 kB

   /usr/bin/lsb_release -d
      SUSE Linux Enterprise Server 12 SP2

   From /etc/*release* /etc/*version*
      SuSE-release:
         SUSE Linux Enterprise Server 12 (x86_64)
         VERSION = 12
         PATCHLEVEL = 2
         # This file is deprecated and will be removed in a future service pack or
         release.
         # Please check /etc/os-release for details about this release.
      os-release:
         NAME="SLES"
         VERSION="12-SP2"
         VERSION_ID="12.2"
         PRETTY_NAME="SUSE Linux Enterprise Server 12 SP2"
         ID="sles"
         ANSI_COLOR="0;32"
         CPE_NAME="cpe:/o:suse:sles:12:sp2"

   uname -a:
      Linux kvasir 4.4.21-69-default #1 SMP Tue Oct 25 10:58:20 UTC 2016 (9464f67)
      x86_64 x86_64 x86_64 GNU/Linux

   run-level 3 Aug 31 14:16

   SPEC is set to: /spec
      Filesystem     Type  Size  Used Avail Use% Mounted on
      /dev/sda1      xfs   650G   81G  570G  13% /
   Additional information from dmidecode:

      Warning: Use caution when you interpret this section. The 'dmidecode' program
      reads system data which is "intended to allow hardware to be accurately
      determined", but the intent may not be met, as there are frequent changes to
      hardware, firmware, and the "DMTF SMBIOS" standard.

     BIOS Intel Corporation SE5C620.86B.0X.01.0007.060920171037 06/09/2017
     Memory:
      24x Kinston 9965640-006.A01G 32 GB 2 rank 2400 MHz
```

Continued on next page

Platform Notes (Continued)

```
(End of data from sysinfo program)
```

General Notes

```
Environment variables set by runspec before the start of the run:
LD_LIBRARY_PATH = "/spec/lib/ia32:/spec/lib/intel64:/spec/sh11.2"

 Binaries compiled on a system with 2x Intel Xeon-SP 4112 CPU + 192GB RAM
 memory using Redhat Enterprise Linux 7.3
 Transparent Huge Pages enabled by default.
 Filesystem page cache cleared with:
 echo 1 > /proc/sys/vm/drop_caches
 runspec command invoked through numactl i.e.:
 numactl --interleave=all runspec <etc>
```

Base Compiler Invocation

C benchmarks:
`icc -m32 -L/opt/intel/compilers_and_libraries_2017/linux/lib/ia32`

C++ benchmarks:
`icpc -m32 -L/opt/intel/compilers_and_libraries_2017/linux/lib/ia32`

Base Portability Flags

400.perlbench: -DSPEC_CPU_LINUX_IA32
462.libquantum: -DSPEC_CPU_LINUX
483.xalancbmk: -DSPEC_CPU_LINUX

Base Optimization Flags

C benchmarks:
`-xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -qopt-mem-layout-trans=3`

C++ benchmarks:
`-xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -qopt-mem-layout-trans=3 -Wl,-z,muldefs -L/sh11.2 -lsmartheap`

Base Other Flags

C benchmarks:

403.gcc: `-Dalloca=_alloca`

The flags files that were used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/Intel-ic17.0-official-linux64-revF.html
http://www.spec.org/cpu2006/flags/MComputers-Platform-Settings-V1.2-revB.20170920.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2006/flags/Intel-ic17.0-official-linux64-revF.xml
http://www.spec.org/cpu2006/flags/MComputers-Platform-Settings-V1.2-revB.20170920.xml

For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

Tested with SPEC CPU2006 v1.2.
Report generated on Wed Sep 20 11:01:33 2017 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 19 September 2017.