IBM S822LC for HPC
(Power8 with NVLink, 2.860 GHz)

SPECompG_peak2012 = Not Run
SPECompG_base2012 = 5.63

OMP2012 license:3440A
Test date: Apr-2018
Test sponsor: Indiana University
Tested by: Indiana University
Software Availability: Dec-2017

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SPECompG_base2012 = 5.63

Hardware
CPU Name: POWER8 with NVLink
CPU Characteristics: IBM Intelligent Energy Optimization enabled, up to 3.492 GHz
CPU MHZ: 2860
CPU MHZ Maximum: 3492
FPU: Integrated
CPU(s) enabled: 20 cores, 2 chips, 10 cores/chip, 8 threads/core
CPU(s) orderable: 1-2 chips
Primary Cache: 32 KB I + 64 KB D on chip per core
Secondary Cache: 512 KB I+D on chip per core
L3 Cache: 8 MB I+D on chip per core
Other Cache: 16 MB I+D off chip per 4 DIMMs
Memory: 256 GB (32 x 8 GB DIMMs DDR4 1600 MHz)
Disk Subsystem: 609TB GPFS
Other Hardware: None
Base Threads Run: 160

Software
Operating System: CentOS Linux release 7.4.1708 (AltArch)
Compiler: C/C++: Version 4.0.1 of Clang
Auto Parallel: No
File System: GPFS 4.2.3.6
System State: Run level 3 (multi-user)
Base Pointers: 64-bit
Peak Pointers: Not Applicable
Other Software: None

Standard Performance Evaluation Corporation
info@spec.org
http://www.spec.org/
IBM
(Test Sponsor: Indiana University)
IBM S822LC for HPC
(Power8 with NVLink, 2.860 GHz)

SPECompG_peak2012 = Not Run
SPECompG_base2012 = 5.63

### Results Table

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

### Platform Notes

Sysinfo program /gpfs/homeb/padc/padc021/spec/omp2012-1.1-run/Docs/sysinfo
Revision 563 of 2016-06-10 (097295389cf6073d8c3b03fa376740a5)
running on juronc13.juron.dns.zone Mon Apr 23 17:18:49 2018

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/omp2012/Docs/config.html#sysinfo

From /proc/cpuinfo
- clock : 4023.0000000MHz
- machine : PowerNV 8335-GTB
- model : 8335-GTB
- platform : PowerNV
- revision : 1.0 (pvr 004c 0100)
- cpu : POWER8NVL (raw), altivec supported
  * 0 "physical id" tags found. Perhaps this is an older system,
  * or a virtualized system. Not attempting to guess how to
  * count chips/cores for this system.
  *
  160 "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.)

From /proc/meminfo
- MemTotal: 267801664 kB
- HugePages_Total: 0
- Hugepagesize: 16384 kB

From /etc/*release* /etc/*version*
- centos-release: CentOS Linux release 7.4.1708 (AltArch)
- centos-release-upstream: Derived from Red Hat Enterprise Linux 7.4 (Source)
- os-release:
  - NAME="CentOS Linux"
  - VERSION="7 (AltArch)"
  - ID="centos"
  - ID_LIKE="rhel fedora"
  - VERSION_ID="7"
  - PRETTY_NAME="CentOS Linux 7 (AltArch)"
  - ANSI_COLOR="0;31"
- CPE_NAME="cpe:/o:centos:centos:7"
- redhat-release: CentOS Linux release 7.4.1708 (AltArch)
- system-release: CentOS Linux release 7.4.1708 (AltArch)
- system-release-cpe: cpe:/o:centos:centos:7

```
uname -a:
Linux juronc13.juron.dns.zone 3.10.0-693.11.1.el7.ppc64le #1 SMP Mon Dec 4 15:48:14 GMT 2017 ppc64le ppc64le ppc64le GNU/Linuxun-level 3 Apr 10 19:42
```

SPEC is set to: /gpfs/homeb/padc/padc021/spec/omp2012-1.1-run

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(End of data from sysinfo program)

### General Notes

Environment Variables:
- OMP_STACKSIZE=1G
- ulimit -s unlimited

### Base Compiler Invocation

C benchmarks:
- clang

Continued on next page
SPEC OMPG2012 Result

IBM
(Test Sponsor: Indiana University)
IBM S822LC for HPC
(Power8 with NVLink, 2.860 GHz)

SPECompG_peak2012 = Not Run
SPECompG_base2012 = 5.63

OMP2012 license: 3440A
Test sponsor: Indiana University
Tested by: Indiana University

Test date: Apr-2018
Hardware Availability: Sep-2017
Software Availability: Dec-2017

Base Compiler Invocation (Continued)

C++ benchmarks:
clang++

Fortran benchmarks:
flang

Base Portability Flags

350.md: -Mfreeform
357.bt331: -mcmodel=medium

Base Optimization Flags

C benchmarks:
-Ofast -fopenmp -fsigned-char

C++ benchmarks:
-Ofast -fopenmp

Fortran benchmarks:
-Ofast -fopenmp

The flags file that was used to format this result can be browsed at
http://www.spec.org/omp2012/flags/llvm40.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/omp2012/flags/llvm40.xml

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

Tested with SPEC OMP2012 v1.1.
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