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

SPECompG_peak2012 = Not Run
SPECompG_base2012 = 5.56

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SPECompG_base2012 = 5.56

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) 3.10.0-693.11.1.el7.ppc64le
Compiler: C/C++/Fortran: Version 7.2.0 of gcc
Auto Parallel: No
File System: GPFS 4.2.3.6
System State: Run level 5 (Multi-user, graphical)
Base Pointers: 64-bit
Peak Pointers: Not Applicable
Other Software: None
IBM S822LC for HPC (Power8 with NVLink, 2.860 GHz)

SPECompG_peak2012 = Not Run
SPECompG_base2012 = 5.56

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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 Fri Jan 19 08:31:34 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
SPEC OMPG2012 Result

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

SPECompG_peak2012 = Not Run
SPECompG_base2012 = 5.56

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

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

run-level 5 Dec 15 13:41

SPEC is set to: /gpfs/homeb/padc/padc021/spec/omp2012-1.1-run
Filesystem Type Size Used Avail Use% Mounted on
homeb gpfs 609T 578T 31T 95% /gpfs/homeb

(End of data from sysinfo program)

General Notes

Environment Variables:
  OMP_STACKSIZE=1G
  ulimit -s unlimited

No: The test sponsor attests, as of date of publication, that CVE-2017-5754 (Meltdown) is mitigated in the system as tested and documented.
No: The test sponsor attests, as of date of publication, that CVE-2017-5753 (Spectre variant 1) is mitigated in the system as tested and documented.
No: The test sponsor attests, as of date of publication, that CVE-2017-5715 (Spectre variant 2) is mitigated in the system as tested and documented.

This benchmark result is intended to provide perspective on
Continued on next page
IBM
(Test Sponsor: Indiana University)
IBM S822LC for HPC
(Power8 with NVLink, 2.860 GHz)

SPECompG_peak2012 = Not Run
SPECompG_base2012 = 5.56

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

General Notes (Continued)

past performance using the historical hardware and/or software described on this result page.

The system as described on this result page was formerly generally available. At the time of this publication, it may not be shipping, and/or may not be supported, and/or may fail to meet other tests of General Availability described in the SPEC HPG Policy document, http://www.spec.org/hpg/policy.html

This measured result may not be representative of the result that would be measured were this benchmark run with hardware and software available as of the publication date.

Base Compiler Invocation

C benchmarks:
gcc

C++ benchmarks:
g++

Fortran benchmarks:
gfortran

Base Portability Flags

350.md: -ffree-form -fno-range-check

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/gcc-linux64.20180620.html
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You can also download the XML flags source by saving the following link:

http://www.spec.org/omp2012/flags/gcc-linux64.20180620.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.
Originally published on 20 June 2018.