SPECompG_peak2012 = Not Run
SPECompG_base2012 = 5.41

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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: 40

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 = 5.41

Results Table

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<tr>
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</tbody>
</table>

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 Sun Jan 21 22:42:52 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
run-level 5 Dec 15 13:40

SPEC is set to: /gpfs/homeb/padc/padc021/spec/omp2012-1.1-run
Filesystem Type Size Used Avail Use% Mounted on
homeb gpfs 609T 579T 30T 96% /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
**SPEC OMPG2012 Result**

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

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

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**IBM OMP2012 license:** 3440A  
**Test sponsor:** Indiana University  
**Test date:** Jan-2018

**Tested by:** Indiana University  
**Hardware Availability:** Sep-2017  
**Software Availability:** Aug-2017

---

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.  
Report generated on Wed Jun 20 15:26:18 2018 by SPEC OMP2012 PS/PDF formatter v541.  
Originally published on 20 June 2018.