



SPEC ACCEL™ ACC Result

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Cray

(Test Sponsor: Indiana University)

Intel Xeon E5-2697 v2

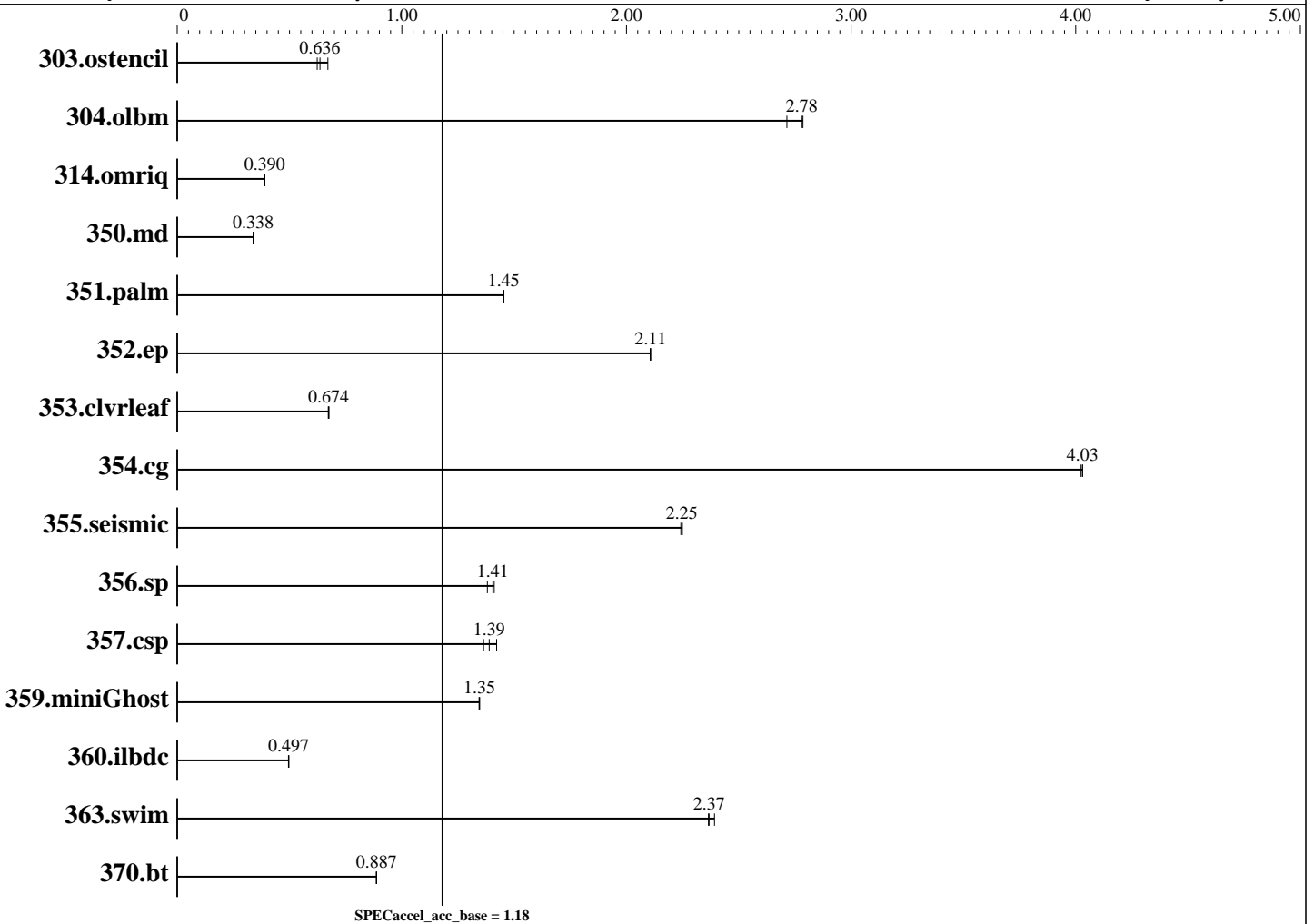
Cray XC30

SPECaccel_acc_peak = Not Run

SPECaccel_acc_base = 1.18

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

Test date: Aug-2017
Hardware Availability: Apr-2013
Software Availability: May-2017



Hardware

CPU Name: Intel Xeon E5-2697 v2
 CPU Characteristics: Intel Turbo Boost Technology off, Hyper-threading on.
 CPU MHz: 2700
 CPU MHz Maximum: 2700
 FPU: Integrated
 CPU(s) enabled: 24 cores, 2 chips, 12 cores/chip, 2 threads/core
 CPU(s) orderable: 1-2 chips
 Primary Cache: 32 KB I + 32 KB D on chip per core
 Secondary Cache: 256 KB I+D on chip per core
 L3 Cache: 30 MB I+D on chip per chip

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Accelerator

Accel Model Name: Intel Xeon E5-2697 v2
 Accel Vendor: Intel
 Accel Name: Intel Xeon E5-2697 v2
 Type of Accel: CPU
 Accel Connection: N/A
 Does Accel Use ECC: Yes
 Accel Description: Intel Xeon E5-2697 v2 @ 2.7 GHz
 Accel Driver: None



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Hardware (Continued)

Other Cache: None
Memory: 64 GB (8 x 8 GB 2Rx4 PC3-14900R-13, ECC)
Disk Subsystem: None
Other Hardware: None

Software

Operating System: SUSE Linux Enterprise Server 11 (x86_64),
Cray Linux Environment 5.2,
3.0.101-0.46.1_1.0502.8871-cray_ari_c
Compiler: PGI Professional Edition, Release 17.5
File System: Lustre 2.5 (DDN SFA12K) over QDR InfiniBand
System State: Run level 3 (multi-user)
Other Software: None

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
303.ostencil	216	0.671	233	0.623	<u>228</u>	<u>0.636</u>						
304.olbm	<u>164</u>	<u>2.78</u>	163	2.79	168	2.71						
314.omriq	2453	0.390	2454	0.390	<u>2454</u>	<u>0.390</u>						
350.md	745	0.338	<u>745</u>	<u>0.338</u>	744	0.338						
351.palm	254	1.45	255	1.45	<u>255</u>	<u>1.45</u>						
352.ep	252	2.11	252	2.11	<u>252</u>	<u>2.11</u>						
353.clvrleaf	659	0.676	<u>660</u>	<u>0.674</u>	662	0.672						
354.cg	101	4.03	<u>101</u>	<u>4.03</u>	101	4.02						
355.seismic	165	2.25	<u>165</u>	<u>2.25</u>	165	2.24						
356.sp	200	1.38	<u>196</u>	<u>1.41</u>	196	1.41						
357.csp	190	1.42	<u>194</u>	<u>1.39</u>	198	1.36						
359.miniGhost	274	1.35	<u>274</u>	<u>1.35</u>	275	1.34						
360.ilbdc	739	0.497	<u>739</u>	<u>0.497</u>	741	0.495						
363.swim	97.3	2.36	<u>97.1</u>	<u>2.37</u>	96.2	2.39						
370.bt	<u>251</u>	<u>0.887</u>	251	0.888	252	0.886						

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

Platform Notes

```
Sysinfo program /N/dc2/projects/hpc/lijunj/spec/accel-1.2-run/br2p/Docs/sysinfo
$Rev: 6965 $ $Date:: 2015-04-21 #$ c05a7f14b1b1765e3feldf68447e8a35
running on nid00571 Sat Aug 12 19:56:51 2017
```

This section contains SUT (System Under Test) info as seen by

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Platform Notes (Continued)

some common utilities. To remove or add to this section, see:
<http://www.spec.org/accel/Docs/config.html#sysinfo>

```
From /proc/cpuinfo
model name : Intel(R) Xeon(R) CPU E5-2697 v2 @ 2.70GHz
 2 "physical id"s (chips)
 48 "processors"
cores, siblings (Caution: counting these is hw and system dependent. The
following excerpts from /proc/cpuinfo might not be reliable. Use with
caution.)
  cpu cores : 12
  siblings  : 24
  physical 0: cores 0 1 2 3 4 5 8 9 10 11 12 13
  physical 1: cores 0 1 2 3 4 5 8 9 10 11 12 13
cache size : 30720 KB
```

```
From /proc/meminfo
MemTotal:      66072376 kB
HugePages_Total:      0
Hugepagesize:    2048 kB
```

```
/usr/bin/lsb_release -d
SUSE Linux Enterprise Server 11 (x86_64)
```

```
From /etc/*release* /etc/*version*
SuSE-release:
SUSE Linux Enterprise Server 11 (x86_64)
VERSION = 11
PATCHLEVEL = 3
```

```
uname -a:
Linux nid00571 3.0.101-0.46.1_1.0502.8871-cray_ari_c #1 SMP Tue Jul 18
17:24:02 UTC 2017 x86_64 x86_64 x86_64 GNU/Linux
```

```
SPEC is set to: /N/dc2/projects/hpc/lijunj/spec/accel-1.2-run/br2p
Filesystem      Type      Size  Used Avail Use% Mounted
on
10.10.0.171@o2ib:10.10.0.172@o2ib:/dc2 lustre  5.3P  5.0P  198T  97% /N/dc2
```

Cannot run dmidecode; consider saying 'chmod +s /usr/sbin/dmidecode'

(End of data from sysinfo program)
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Base Compiler Invocation

C benchmarks:

pgcc

Fortran benchmarks:

pgfortran

Benchmarks using both Fortran and C:

pgcc pgfortran

Base Optimization Flags

C benchmarks:

-fast -Mfprelaxed -acc -ta=multicore

Fortran benchmarks:

-fast -Mfprelaxed -acc -ta=multicore

Benchmarks using both Fortran and C:

353.clvrlf: -fast -Mfprelaxed -acc -ta=multicore

359.miniGhost: -fast -Mfprelaxed -acc -ta=multicore -Mnomain

The flags file that was used to format this result can be browsed at

https://www.spec.org/accel/flags/pgi2017_flags.20170830.html

You can also download the XML flags source by saving the following link:

https://www.spec.org/accel/flags/pgi2017_flags.20170830.xml

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

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