SPEC ACCEL™ ACC Result

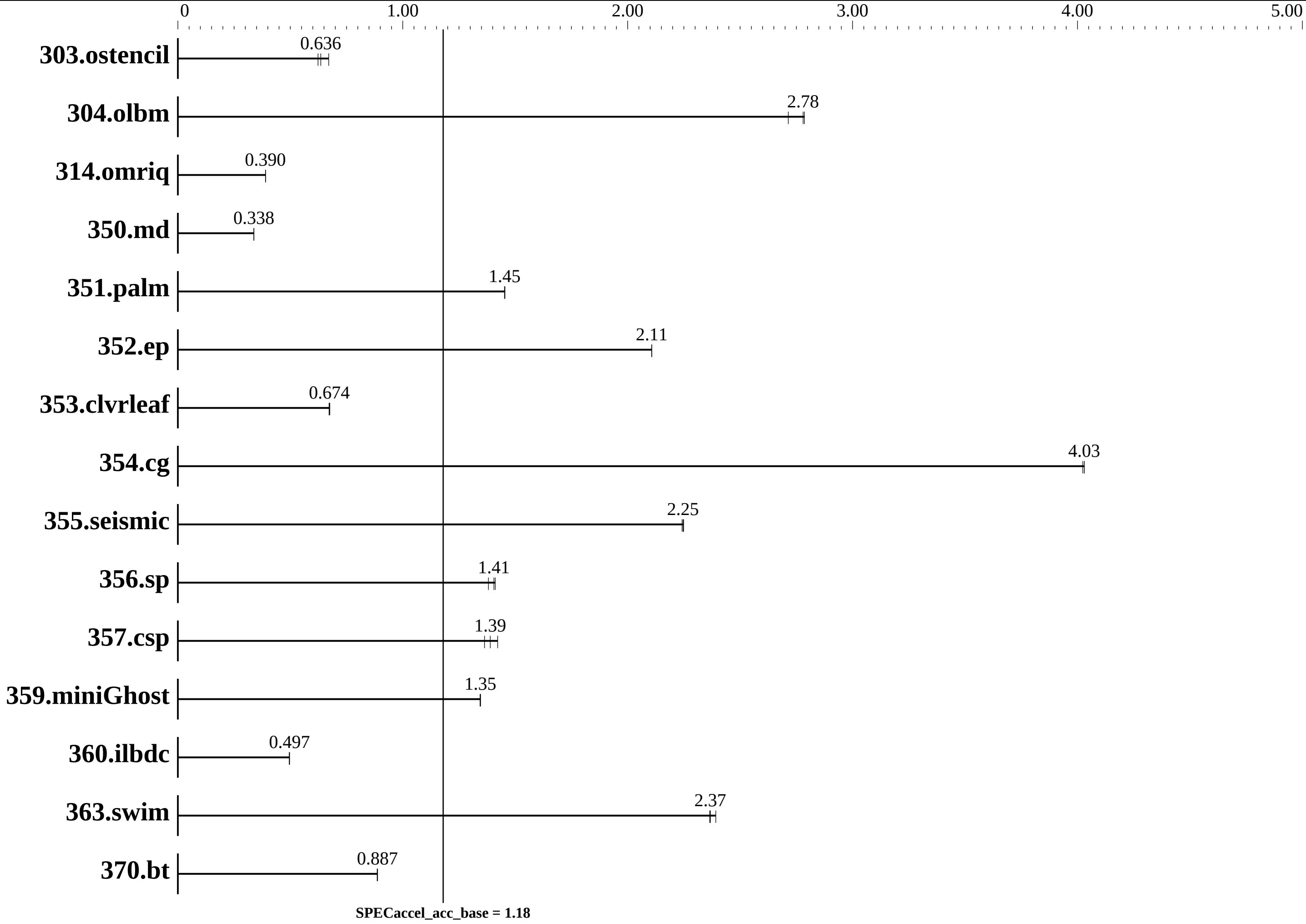
Cray
(Test Sponsor: Indiana University)

Intel Xeon E5-2697 v2
Cray XC30

SPECaccel_acc_peak = Not Run

SPECaccel_acc_base = 1.18

ACCEL license:	3440A	**Test date:**	Aug-2017
Test sponsor:	Indiana University	**Hardware Availability:**	Apr-2013
Tested by:	Indiana University	**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	**228**	**0.636**						
304.olbm	**164**	**2.78**	163	2.79	168	2.71						
314.omriq	2453	0.390	2454	0.390	**2454**	**0.390**						
350.md	745	0.338	**745**	**0.338**	744	0.338						
351.palm	254	1.45	255	1.45	**255**	**1.45**						
352.ep	252	2.11	252	2.11	**252**	**2.11**						
353.clvrleaf	659	0.676	**660**	**0.674**	662	0.672						
354.cg	101	4.03	**101**	**4.03**	101	4.02						
355.seismic	165	2.25	**165**	**2.25**	165	2.24						
356.sp	200	1.38	**196**	**1.41**	196	1.41						
357.csp	190	1.42	**194**	**1.39**	198	1.36						
359.miniGhost	274	1.35	**274**	**1.35**	275	1.34						
360.ilbdc	739	0.497	**739**	**0.497**	741	0.495						
363.swim	97.3	2.36	**97.1**	**2.37**	96.2	2.39						
370.bt	**251**	**0.887**	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 $ $Date:: 2015-04-21 #$ c05a7f14b1b1765e3fe1df68447e8a35
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)
(End of data from sysinfo program)
```

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.clvrleaf: `-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