SPEC ACCEL™ ACC Result

Bull

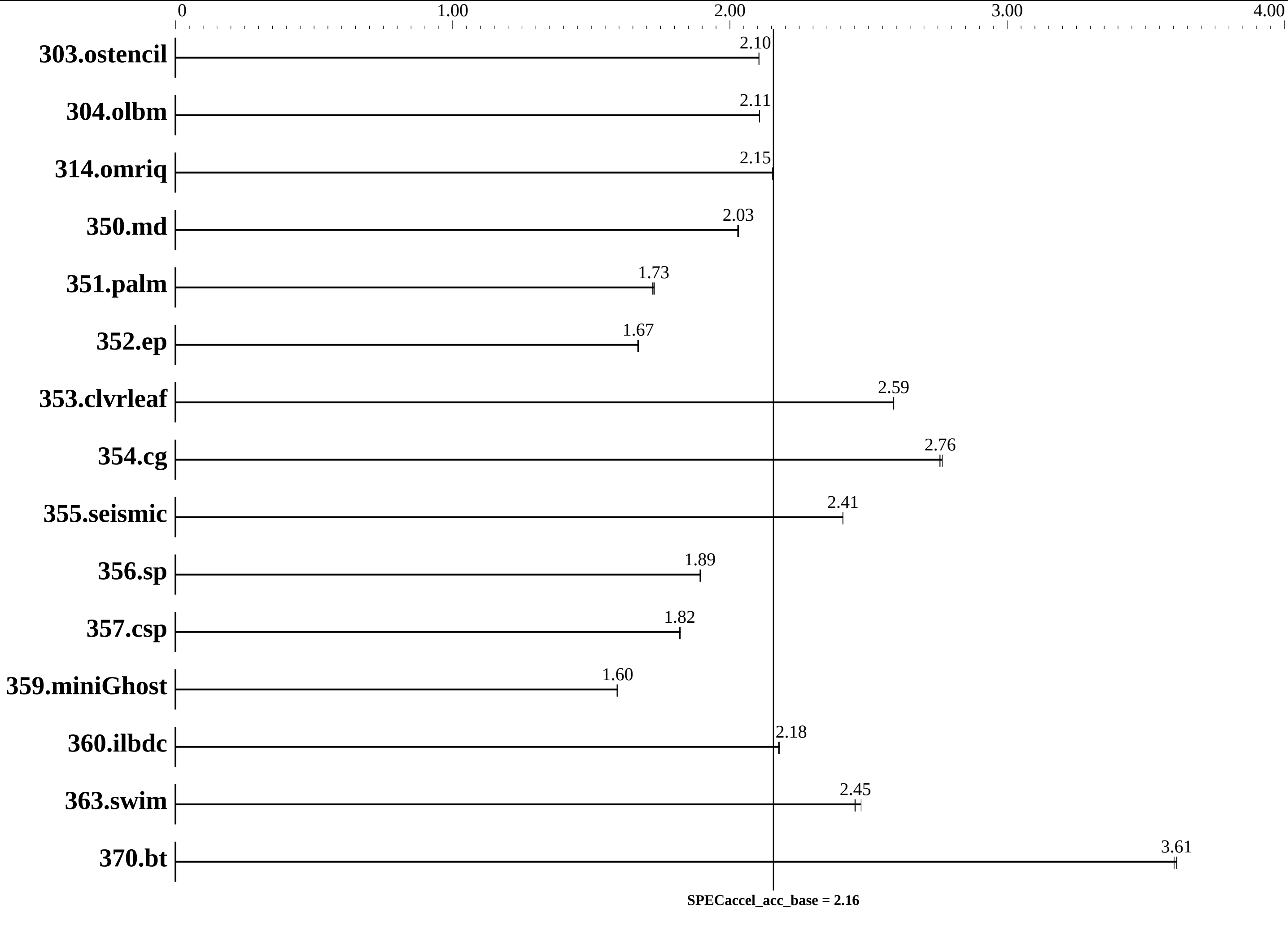
(Test Sponsor: Technische Universitaet Dresden)

NVIDIA Tesla K80
Bull R400

SPECaccel_acc_peak = Not Run

SPECaccel_acc_base = 2.16

ACCEL license:	37A	**Test date:**	Sep-2015
Test sponsor:	Technische Universitaet Dresden	**Hardware Availability:**	Jan-2015
Tested by:	Technische Universitaet Dresden	**Software Availability:**	Jul-2015



Hardware

CPU Name:	Intel Xeon E5-2680 v3
CPU Characteristics:	Intel Turbo Boost Technology up tp 3.30 GHz
CPU MHz:	2500
CPU MHz Maximum:	3300
FPU:	Integrated
CPU(s) enabled:	24 cores, 2 chips, 12 cores/chip
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
Other Cache:	None

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Accelerator

Accel Model Name:	Tesla K80
Accel Vendor:	NVIDIA
Accel Name:	NVIDIA Tesla K80
Type of Accel:	GPU
Accel Connection:	PCIe 2.0 16x
Does Accel Use ECC:	yes
Accel Description:	NVIDIA Tesla K80, Kepler GK210, 2496 CUDA cores, 875 MHz 12 GB GDDR5 RAM (Kepler Generation)
Accel Driver:	NVIDIA UNIX x86_64 Kernel Module 346.46

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Hardware (Continued)

Memory: 64 GB (8 x 8 GB 2Rx8 PC4-2133R-10)
Disk Subsystem: 62 GB SSD
Other Hardware: --

Software

Operating System: Red Hat Enterprise Linux Server release 6.4 (Santiago)
Red Hat Enterprise Linux Server release 6.4 (Santiago)
2.6.32-504.12.2.el6.x86_64
Compiler: PGI Accelerator Server Complete, Release 15.7
File System: ext4
System State: Run Level 3 (Multi-User)
Other Software: NVIDIA Cuda SDK 7.0, driver version 346.46

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
303.ostencil	**68.9**	**2.10**	68.9	2.10	68.9	2.11						
304.olbm	**216**	**2.11**	216	2.11	216	2.11						
314.omriq	443	2.16	444	2.15	**444**	**2.15**						
350.md	**124**	**2.03**	124	2.03	124	2.03						
351.palm	**214**	**1.73**	214	1.73	215	1.72						
352.ep	318	1.67	**317**	**1.67**	317	1.67						
353.clvrleaf	**172**	**2.59**	172	2.59	172	2.59						
354.cg	148	2.76	**148**	**2.76**	148	2.77						
355.seismic	154	2.41	**154**	**2.41**	154	2.41						
356.sp	146	1.89	146	1.89	**146**	**1.89**						
357.csp	148	1.82	**148**	**1.82**	148	1.82						
359.miniGhost	232	1.59	231	1.60	**231**	**1.60**						
360.ilbdc	169	2.18	168	2.18	**169**	**2.18**						
363.swim	93.0	2.47	**93.8**	**2.45**	93.9	2.45						
370.bt	**61.8**	**3.61**	61.7	3.61	61.9	3.60						

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

Platform Notes

```
MultiThreading disabled in BIOS
 Sysinfo program /tmp/spec-accel/1.1/Docs/sysinfo
 $Rev: 6965 $ $Date:: 2015-04-21 #$ c05a7f14b1b1765e3fe1df68447e8a35
 running on taurusi2059 Wed Sep 16 16:39:01 2015
```

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Platform Notes (Continued)

```
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/accel/Docs/config.html#sysinfo

From /proc/cpuinfo
   model name : Intel(R) Xeon(R) CPU E5-2680 v3 @ 2.50GHz
      2 "physical id"s (chips)
      24 "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  : 12
      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:       65868116 kB
   HugePages_Total:       0
   Hugepagesize:       2048 kB

/usr/bin/lsb_release -d
   Red Hat Enterprise Linux Server release 6.4 (Santiago)

From /etc/*release* /etc/*version*
   redhat-release: Red Hat Enterprise Linux Server release 6.4 (Santiago)
   system-release: Red Hat Enterprise Linux Server release 6.4 (Santiago)
   system-release-cpe: cpe:/o:redhat:enterprise_linux:6server:ga:server

uname -a:
   Linux taurusi2059 2.6.32-504.12.2.el6.x86_64 #1 SMP Sun Feb 1 12:14:02 EST
   2015 x86_64 x86_64 x86_64 GNU/Linux

run-level 3 Jul 8 14:35

SPEC is set to: /tmp/spec-accel/1.1
   Filesystem     Type  Size  Used Avail Use% Mounted on
   /dev/sda3      ext4   62G  4.2G   55G   8% /tmp

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

(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:
`-V15.7 -fast -acc -ta=tesla:cc35 -ta=tesla:cuda7.0 -tp=haswell-64`

Fortran benchmarks:
`-V15.7 -fast -acc -ta=tesla:cc35 -ta=tesla:cuda7.0 -tp=haswell-64`

Benchmarks using both Fortran and C:

353.clvrleaf: `-V15.7 -fast -acc -ta=tesla:cc35 -ta=tesla:cuda7.0 -tp=haswell-64`

359.miniGhost: `-V15.7 -fast -acc -ta=tesla:cc35 -ta=tesla:cuda7.0 -tp=haswell-64 -Mnomain`

The flags file that was used to format this result can be browsed at
http://www.spec.org/accel/flags/pgi2014_flags.20150930.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/accel/flags/pgi2014_flags.20150930.xml

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

Tested with SPEC ACCEL v1.1.
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