



SPEC ACCEL™ ACC Result

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Bull

(Test Sponsor: Technische Universitaet Dresden)

NVIDIA Tesla K80

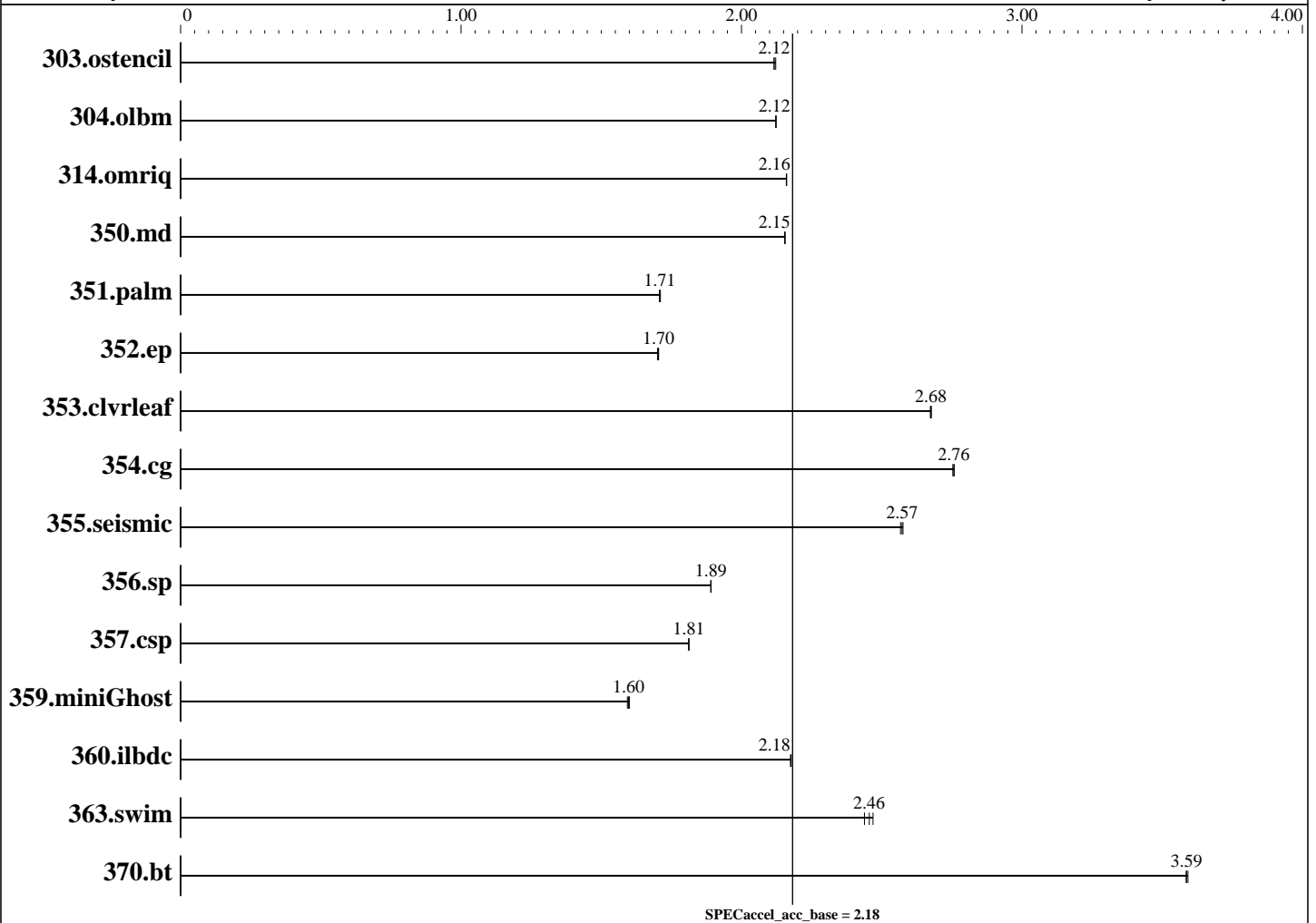
Bull R400

SPECaccel_acc_peak = Not Run

SPECaccel_acc_base = 2.18

ACCEL license: 37A
Test sponsor: Technische Universitaet Dresden
Tested by: Technische Universitaet Dresden

Test date: Sep-2015
Hardware Availability: Jan-2015
Software Availability: May-2015



Hardware

CPU Name: Intel Xeon E5-2680 v3
 CPU Characteristics: Intel Turbo Boost Technology up to 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
 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 PC4-2133P-R)
Disk Subsystem: 62 GB SSD
Other Hardware: --

Software

Operating System: Red Hat Enterprise Linux Server release 6.4 (Santiago)
2.6.32-504.12.2.el6.x86_64
Compiler: PGI Accelerator Server Complete, Release 15.5
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	68.5	2.12	68.3	2.12	68.5	2.12						
304.olbm	214	2.12	214	2.12	214	2.12						
314.omriq	443	2.16	442	2.16	442	2.16						
350.md	117	2.15	117	2.15	117	2.16						
351.palm	216	1.71	217	1.71	217	1.71						
352.ep	311	1.70	312	1.70	311	1.70						
353.clvrlf	166	2.68	166	2.68	166	2.67						
354.cg	148	2.76	148	2.76	148	2.75						
355.seismic	144	2.58	144	2.57	144	2.57						
356.sp	146	1.89	146	1.89	146	1.89						
357.csp	149	1.81	149	1.81	149	1.81						
359.miniGhost	231	1.60	232	1.59	231	1.60						
360.ilbdc	169	2.17	169	2.18	169	2.18						
363.swim	93.2	2.47	93.7	2.46	94.3	2.44						
370.bt	62.1	3.59	62.2	3.59	62.2	3.59						

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/Docs/sysinfo
\$Rev: 6874 \$ \$Date:: 2013-11-20 #\$ 0953404ef7e75a5f9bbb534c6de3f831
running on taurusi2058 Mon Sep 14 17:28:10 2015

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 E5-2680 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 taurusi2058 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 14:37
```

```
SPEC is set to: /tmp/spec-accel
Filesystem      Type  Size  Used Avail Use% Mounted on
/dev/sda3       ext4  62G  2.9G   56G   5% /tmp
```

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

(End of data from sysinfo program)

Base Compiler Invocation

C benchmarks:
pgcc

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Base Compiler Invocation (Continued)

Fortran benchmarks:
pgfortran

Benchmarks using both Fortran and C:
pgcc pgfortran

Base Optimization Flags

C benchmarks:
-V15.5 -fast -Mfprelaxed -acc -ta=tesla:cc35 -ta=tesla:cuda7.0
-tp=haswell-64

Fortran benchmarks:
-V15.5 -fast -Mfprelaxed -acc -ta=tesla:cc35 -ta=tesla:cuda7.0
-tp=haswell-64

Benchmarks using both Fortran and C:

353.cvrleaf: -V15.5 -fast -Mfprelaxed -acc -ta=tesla:cc35
-ta=tesla:cuda7.0 -tp=haswell-64

359.miniGhost: -V15.5 -fast -Mfprelaxed -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

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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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