SPEC® MPIM2007 Result
Copyright 2006-2010 Standard Performance Evaluation Corporation

Hewlett-Packard Company
HP ProLiant DL160 G5

Ranks		
104.milc	64	3.85
107.leslie3d	64	4.97
113.GemsFDTD	64	7.54
115.fds4	64	4.44
121.pop2	64	7.23
122.tachyon	64	7.47
126.lammps	64	5.98
127.wrf2	64	9.62
128.GAPgeofem	64	5.30
129.tera_tf	64	7.75
130.socorro	64	5.00
132.zeusmp2	64	6.42
137.lu	64	9.09

SPECmpiM_base2007 = 6.28

Results Table

Benchmark	Ranks	Base Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Peak Ranks	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
104.milc	64	405	3.87	407	3.84	**407**	**3.85**							
107.leslie3d	64	1049	4.97	1046	4.99	**1049**	**4.97**							
113.GemsFDTD	64	840	7.51	833	7.57	**837**	**7.54**							
115.fds4	64	**440**	**4.44**	439	4.44	443	4.41							
121.pop2	64	**571**	**7.23**	624	6.62	568	7.26							
122.tachyon	64	374	7.47	**374**	**7.47**	373	7.49							
126.lammps	64	486	6.00	489	5.96	**487**	**5.98**							
127.wrf2	64	806	9.67	**810**	**9.62**	811	9.61							
128.GAPgeofem	64	391	5.29	**390**	**5.30**	385	5.37							
129.tera_tf	64	360	7.68	356	7.77	**357**	**7.75**							

Table continues on next page. Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

SPEC MPIM2007 Result
Copyright 2006-2010 Standard Performance Evaluation Corporation

Hewlett-Packard Company
HP ProLiant DL160 G5

SPECmpiM_peak2007 = Not Run

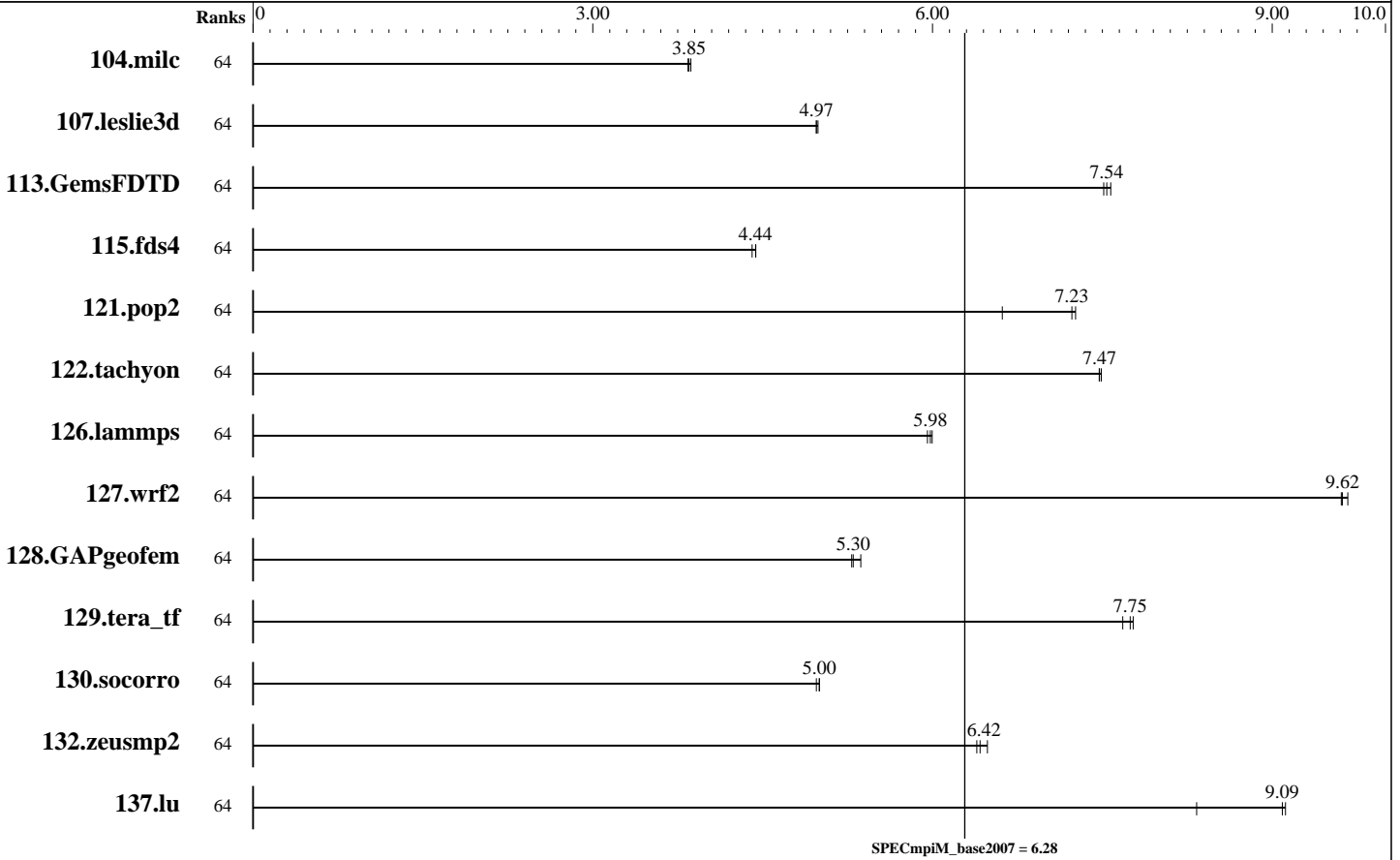SPECmpiM_base2007 = 6.28

MPI2007 license: 1
Test sponsor: Hewlett-Packard Company
Tested by: HP Richardson

Test date: Nov-2008
Hardware Availability: Jun-2008
Software Availability: Jan-2009

Results Table (Continued)

Benchmark	Ranks	Base Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Peak Ranks	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
130.socorro	64	767	4.97	763	5.00	**763**	**5.00**							
132.zeusmp2	64	486	6.39	479	6.48	**483**	**6.42**							
137.lu	64	**404**	**9.09**	441	8.33	403	9.12							

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

Hardware Summary

Type of System:	Homogeneous
Compute Nodes:	DL160 G5 Compute Node
	DL160 G5 Head Node
Interconnects:	Gigabit Ethernet Switch
	InfiniBand Switch
File Server Node:	DL160 G5 Head Node
Head Node:	DL160 G5 Head Node
Total Compute Nodes:	8
Total Chips:	16
Total Cores:	64
Total Threads:	64
Total Memory:	128 GB
Base Ranks Run:	64
Minimum Peak Ranks:	--
Maximum Peak Ranks:	--

Software Summary

C Compiler:	Intel C++ Compiler 10.1 for Linux (10.1.018)
C++ Compiler:	Intel C++ Compiler 10.1 for Linux (10.1.018)
Fortran Compiler:	Intel Fortran Compiler 10.1 for Linux (10.1.018)
Base Pointers:	64-bit
Peak Pointers:	64-bit
MPI Library:	HP-MPI v2.3
Other MPI Info:	--
Pre-processors:	No
Other Software:	--

Node Description: DL160 G5 Compute Node

Hardware

Number of nodes:	7
Uses of the node:	compute
Vendor:	Hewlett-Packard Company
Model:	DL160 G5
CPU Name:	Intel Xeon CPU E5462
CPU(s) orderable:	1-2 chips
Chips enabled:	2
Cores enabled:	8
Cores per chip:	4
Threads per core:	1
CPU Characteristics:	1600 MHz FSB
CPU MHz:	2800
Primary Cache:	32 KB I + 32 KB D on chip per core
Secondary Cache:	12 MB I+D on chip per chip, 6 MB shared / 2 cores
L3 Cache:	None
Other Cache:	None
Memory:	16 GB (FBDIMM 8x2-GB 667 Mtf/s)
Disk Subsystem:	2x146GB 15k RPM SAS (RAID 0 mode)
Other Hardware:	HP Smart Array E200 Raid Controller
Adapter:	NetXtreme BCM5722 Gigabit Ethernet
Number of Adapters:	1

Software

Adapter:	NetXtreme BCM5722 Gigabit Ethernet
Adapter Driver:	tg3 version 3.86b
Adapter Firmware:	5722-v3.07, ASFIPMI v6.02
Adapter:	HP 448397-B21 (4x DDR)
Adapter Driver:	OFED 1.3
Adapter Firmware:	2.5.0
Operating System:	SLES 10 update 1
Local File System:	Linux/ext3
Shared File System:	NFS
System State:	Multi-User
Other Software:	none

SPEC MPIM2007 Result
Copyright 2006-2010 Standard Performance Evaluation Corporation

Hewlett-Packard Company
HP ProLiant DL160 G5

SPECmpiM_peak2007 = Not Run

SPECmpiM_base2007 =   6.28

MPI2007 license: 1
Test sponsor: Hewlett-Packard Company
Tested by: HP Richardson

Test date: Nov-2008
Hardware Availability: Jun-2008
Software Availability: Jan-2009

Node Description: DL160 G5 Compute Node

Slot Type:	Builtin PCI-Express
Data Rate:	1 Gb/s Ethernet
Ports Used:	1
Interconnect Type:	Ethernet
Adapter:	HP 448397-B21 (4x DDR)
Number of Adapters:	1
Slot Type:	PCIe x16 Gen2
Data Rate:	InfiniBand 4x DDR
Ports Used:	1
Interconnect Type:	InfiniBand

Node Description: DL160 G5 Head Node

Hardware

Number of nodes:	1
Uses of the node:	head, fileserver, compute
Vendor:	Hewlett-Packard Company
Model:	DL160 G5
CPU Name:	Intel Xeon CPU E5462
CPU(s) orderable:	1-2 chips
Chips enabled:	2
Cores enabled:	8
Cores per chip:	4
Threads per core:	1
CPU Characteristics:	1600 MHz FSB
CPU MHz:	2800
Primary Cache:	32 KB I + 32 KB D on chip per core
Secondary Cache:	12 MB I+D on chip per chip, 6 MB shared / 2 cores
L3 Cache:	None
Other Cache:	None
Memory:	16 GB (FBDIMM 8x2-GB 667 Mtf/s)
Disk Subsystem:	2x146GB 15k RPM SAS (RAID 0 mode)
Other Hardware:	HP Smart Array E200 Raid Controller
Adapter:	NetXtreme BCM5722 Gigabit Ethernet
Number of Adapters:	1
Slot Type:	Builtin PCI-Express
Data Rate:	1 Gb/s Ethernet
Ports Used:	1
Interconnect Type:	Ethernet
Adapter:	HP 448397-B21 (4x DDR)
Number of Adapters:	1
Slot Type:	PCIe x16 Gen2
Data Rate:	InfiniBand 4x DDR
Ports Used:	1
Interconnect Type:	InfiniBand

Software

Adapter:	NetXtreme BCM5722 Gigabit Ethernet
Adapter Driver:	tg3 version 3.86b
Adapter Firmware:	5722-v3.07, ASFIPMI v6.02
Adapter:	HP 448397-B21 (4x DDR)
Adapter Driver:	OFED 1.3
Adapter Firmware:	2.5.0
Operating System:	SLES 10 update 1
Local File System:	Linux/ext3
Shared File System:	NFS
System State:	Multi-User
Other Software:	none

SPEC MPIM2007 Result
Copyright 2006-2010 Standard Performance Evaluation Corporation

Hewlett-Packard Company
HP ProLiant DL160 G5

SPECmpiM_peak2007 = Not Run

SPECmpiM_base2007 =   6.28

MPI2007 license: 1
Test sponsor: Hewlett-Packard Company
Tested by: HP Richardson

Test date: Nov-2008
Hardware Availability: Jun-2008
Software Availability: Jan-2009

Interconnect Description: Gigabit Ethernet Switch

Hardware	**Software**
Vendor: Hewlett-Packard Company	
Model: ProCurve J8693A Switch 3500yl-48G	
Switch Model: ProCurve J8693A Switch 3500yl-48G	
Number of Switches: 1	
Number of Ports: 48	
Data Rate: 1Gbps Ethernet	
Firmware: K.12.16	
Topology: single switch	
Primary Use: Cluster File System	

Interconnect Description: InfiniBand Switch

Hardware	**Software**
Vendor: Hewlett-Packard Company	
Model: HP 445825-B21 (4x DDR)	
Switch Model: HP 445825-B21	
Number of Switches: 1	
Number of Ports: 144	
Data Rate: InfiniBand 4x DDR	
Firmware: 4.1.1.1.11	
Topology: single switch	
Primary Use: MPI traffic	

General Notes

```
Required alternate sources:
   129.tera_tf: fixbuffer
Optional alternate sources:
   104.milc: calloc
   113.GemsFDTD: maxprocandstop

% cat submit.sh
#!/bin/bash
ulimit -s 326780
exec $*
%

BASE PORTABILITY FLAG NOTICE:
 130.socorro: Discontinue use of -DSPEC_EIGHT_BYTE_LONG because it
              doesn't appear in the source code.
```

SPEC MPIM2007 Result
Copyright 2006-2010 Standard Performance Evaluation Corporation

Hewlett-Packard Company
HP ProLiant DL160 G5

SPECmpiM_peak2007 = Not Run

SPECmpiM_base2007 =   6.28

MPI2007 license:	1	**Test date:**	Nov-2008
Test sponsor:	Hewlett-Packard Company	**Hardware Availability:**	Jun-2008
Tested by:	HP Richardson	**Software Availability:**	Jan-2009

Base Compiler Invocation

C benchmarks:
```
/lvol_nfs/brent/mpi2007_v1.0/hpmpi23_20081105/bin/mpicc
```

C++ benchmarks:

```
126.lammps: /lvol_nfs/brent/mpi2007_v1.0/hpmpi23_20081105/bin/mpiCC
```

Fortran benchmarks:
```
/lvol_nfs/brent/mpi2007_v1.0/hpmpi23_20081105/bin/mpif90
```

Benchmarks using both Fortran and C:
```
/lvol_nfs/brent/mpi2007_v1.0/hpmpi23_20081105/bin/mpicc
/lvol_nfs/brent/mpi2007_v1.0/hpmpi23_20081105/bin/mpif90
```

Base Portability Flags

```
    121.pop2: -DSPEC_MPI_CASE_FLAG
    127.wrf2: -DSPEC_MPI_LINUX -DSPEC_MPI_CASE_FLAG
  130.socorro: -DSPEC_EIGHT_BYTE_LONG
```

Base Optimization Flags

C benchmarks:
```
    -O3 -no-prec-div -xT
```

C++ benchmarks:

```
    126.lammps: -O3 -no-prec-div -xT
```

Fortran benchmarks:
```
    -O3 -no-prec-div -xT
```

Benchmarks using both Fortran and C:
```
    -O3 -no-prec-div -xT
```

The flags file that was used to format this result can be browsed at
http://www.spec.org/mpi2007/flags/EM64T_Intel101_flags.20090108.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/mpi2007/flags/EM64T_Intel101_flags.20090108.xml

SPEC MPIM2007 Result
Copyright 2006-2010 Standard Performance Evaluation Corporation

Hewlett-Packard Company
HP ProLiant DL160 G5

SPECmpiM_peak2007 = Not Run

SPECmpiM_base2007 =   6.28

MPI2007 license: 1
Test sponsor: Hewlett-Packard Company
Tested by: HP Richardson

Test date: Nov-2008
Hardware Availability: Jun-2008
Software Availability: Jan-2009

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

Tested with SPEC MPI2007 v1.0.
Report generated on Tue Jul 22 13:35:55 2014 by SPEC MPI2007 PS/PDF formatter v1463.
Originally published on 8 January 2009.