SGI

SGI UV 2000 (Intel Xeon E5-4650 2.7GHz)

**SPECCompG_peak2012 = Not Run**

**SPECCompG_base2012 = 54.5**

**OMPG2012 Result**

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</tbody>
</table>

**Hardware**

- **CPU Name:** Intel Xeon E5-4650
- **CPU Characteristics:** Intel Turbo Boost Technology up to 3.30 GHz
- **CPU MHz:** 2700
- **CPU MHz Maximum:** 3300
- **FPU:** Integrated
- **CPU(s) enabled:** 512 cores, 64 chips, 8 cores/chip, 2 threads/core
- **CPU(s) orderable:** 2-256 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:** 20 MB I+D on chip per chip
- **Other Cache:** None
- **Memory:** 4 TB (512 x 8 GB 2Rx4 PC3-12800R-11, ECC)
- **Disk Subsystem:** 14.4 TB RAID 6 (48 x 300 GB SAS (HITACHI - ULTRASTAR C10K600 SAS-6Gbps 10000RPM)
- **Other Hardware:** None

**Software**

- **Operating System:** SUSE Linux Enterprise Server 11 (x86_64) SP2 3.0.26-0.7-default #1 SMP
- **Compiler:** C/C++/Fortran: Version 13.0 of Intel Composer XE 2013 Build 20120731
- **Auto Parallel:** No
- **File System:** xfs
- **System State:** Run level 3 (Multi-user)
- **Base Pointers:** 64-bit
- **Peak Pointers:** Not Applicable
- **Other Software:** SGI Accelerate 1.4, Build 706r14.sles11sp2-1204092008
  SGI Foundation Software 2.6, Build 706r14.sles11sp2-1204092008

Test date: Oct-2012

Hardware Availability: Jun-2012

Software Availability: Aug-2012

Test sponsor: SGI

Hardware Availability: Jun-2012

Tested by: SGI

Software Availability: Aug-2012

Threads
SGI UV 2000 (Intel Xeon E5-4650 2.7GHz)

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<th>Seconds</th>
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</tbody>
</table>

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

**Submit Notes**

The config file option 'submit' was used.

For all benchmarks, threads were bound to cores using the following submit command:

dplace -x2 $command

This binds threads in order of creation, beginning with the master thread on logical cpu 0, the first slave thread on logical cpu 1, and so on. The -x2 flag instructs dplace to skip placement of the lightweight OpenMP monitor thread, which is created prior to the slave threads.

**Operating System Notes**

Software Environment:

- export KMP_AFFINITY=disabled
- export KMP_STACKSIZE=200M
- export KMP_SCHEDULE=static,balanced
- export OMP_DYNAMIC FALSE
- limit -s unlimited

Continued on next page
SPEC OMPG2012 Result

SGI

SGI UV 2000 (Intel Xeon E5-4650 2.7GHz)

SPECCompG_peak2012 = Not Run
SPECCompG_base2012 = 54.5

OMPG2012 license: 14
Test sponsor: SGI
Tested by: SGI

Operating System Notes (Continued)
Hyperthreading is enabled but not used on the system.

Platform Notes

Sysinfo program /store/hfeng/omp2012/1.0/Docs/sysinfo
$Rev: 395 $ $Date:: 2012-07-25 #$ 8f8c0fe9e19c658963a1e67685e50647
running on cy022-sys Tue Oct 23 03:06:18 2012

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/omp2012/Docs/config.html#sysinfo

From /proc/cpuinfo
model name : Intel(R) Xeon(R) CPU E5-4650 0 @ 2.70GHz
64 "physical id"s (chips)
1024 "processors"
cores, siblings (Caution: counting these is hw and system dependent. The
following excerpts from /proc/cpuinfo might not be reliable. Use with
cautions.)
cpu cores : 8
siblings : 16
physical 0: cores 0 1 2 3 4 5 6 7
physical 1: cores 0 1 2 3 4 5 6 7
physical 2: cores 0 1 2 3 4 5 6 7
physical 3: cores 0 1 2 3 4 5 6 7
physical 4: cores 0 1 2 3 4 5 6 7
physical 5: cores 0 1 2 3 4 5 6 7
physical 6: cores 0 1 2 3 4 5 6 7
physical 7: cores 0 1 2 3 4 5 6 7
physical 8: cores 0 1 2 3 4 5 6 7
physical 9: cores 0 1 2 3 4 5 6 7
physical 10: cores 0 1 2 3 4 5 6 7
physical 11: cores 0 1 2 3 4 5 6 7
physical 12: cores 0 1 2 3 4 5 6 7
physical 13: cores 0 1 2 3 4 5 6 7
physical 14: cores 0 1 2 3 4 5 6 7
physical 15: cores 0 1 2 3 4 5 6 7
physical 16: cores 0 1 2 3 4 5 6 7
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physical 25: cores 0 1 2 3 4 5 6 7
physical 26: cores 0 1 2 3 4 5 6 7
physical 27: cores 0 1 2 3 4 5 6 7
physical 28: cores 0 1 2 3 4 5 6 7
physical 29: cores 0 1 2 3 4 5 6 7

Continued on next page
SPEC OMPG2012 Result

SGI

SGI UV 2000 (Intel Xeon E5-4650 2.7GHz)

SPECompG_peak2012 = Not Run
SPECompG_base2012 = 54.5

OMP2012 license: 14
Test sponsor: SGI
Test date: Oct-2012
Hardware Availability: Jun-2012
Tested by: SGI
Software Availability: Aug-2012

Platform Notes (Continued)

physical 30: cores 0 1 2 3 4 5 6 7
physical 31: cores 0 1 2 3 4 5 6 7
physical 32: cores 0 1 2 3 4 5 6 7
physical 33: cores 0 1 2 3 4 5 6 7
physical 34: cores 0 1 2 3 4 5 6 7
physical 35: cores 0 1 2 3 4 5 6 7
physical 36: cores 0 1 2 3 4 5 6 7
physical 37: cores 0 1 2 3 4 5 6 7
physical 38: cores 0 1 2 3 4 5 6 7
physical 39: cores 0 1 2 3 4 5 6 7
physical 40: cores 0 1 2 3 4 5 6 7
physical 41: cores 0 1 2 3 4 5 6 7
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physical 57: cores 0 1 2 3 4 5 6 7
physical 58: cores 0 1 2 3 4 5 6 7
physical 59: cores 0 1 2 3 4 5 6 7
physical 60: cores 0 1 2 3 4 5 6 7
physical 61: cores 0 1 2 3 4 5 6 7
physical 62: cores 0 1 2 3 4 5 6 7
physical 63: cores 0 1 2 3 4 5 6 7

cache size : 20480 KB

From /proc/meminfo
MemTotal: 4102393252 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 = 2
sgi-accelerate-release: SGI Accelerate 1.4, Build 706r14.sles11sp2-1204092008
sgi-foundation-release: SGI Foundation Software 2.6, Build 706r14.sles11sp2-1204092008

Continued on next page
## Platform Notes (Continued)

- sgi-mpi-release: SGI MPI 1.4, Build 706r14.sles11sp2-1204092008
- sgi-release: SGI Performance Suite 1.4, Build 706r14.sles11sp2-1204092008
- sgi-upc-release: SGI UPC 1.4, Build 706r14.sles11sp2-1204092008
- sgi-xvm-release: SGI XVM 6.6, Build 706r14.sles11sp2-1204092008

```
uname -a:
Linux cy022-sys 3.0.38-0.5-default #1 SMP Fri Aug 3 09:02:17 UTC 2012
(358029e) x86_64 x86_64 x86_64 GNU/Linux
```

```
run-level 3 Oct 22 05:28 last=S
```

```
SPEC is set to: /store/hfeng/omp2012/1.0
Filesystem            Type  Size  Used Avail Use% Mounted on
/dev/lxvm/cy022-store xfs   9.9T  1.6T  8.3T  17% /store
```

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

(End of data from sysinfo program)

## Base Compiler Invocation

- **C benchmarks:**
  - icc

- **C++ benchmarks:**
  - icpc

- **Fortran benchmarks:**
  - ifort

## Base Portability Flags

- 350.md: -free
- 367.imagick: -std=c99

## Base Optimization Flags

- **C benchmarks:**
  - -O3 -xAVX -ipol -openmp -ansi-alias -mcmodel=medium -shared-intel

- **C++ benchmarks:**
  - -O3 -xAVX -ipol -openmp -ansi-alias -mcmodel=medium -shared-intel

- **Fortran benchmarks:**
  - -O3 -xAVX -ipol -openmp -mcmodel=medium -shared-intel
**SGI UV 2000 (Intel Xeon E5-4650 2.7GHz)**

<table>
<thead>
<tr>
<th>SPEC OMPG2012 Result</th>
<th>SPECompG_peak2012 = Not Run</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECompG_base2012 =</td>
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</tbody>
</table>

| OMP2012 license:14   | Test date: Oct-2012         |
| Test sponsor: SGI    | Hardware Availability: Jun-2012 |
| Tested by: SGI       | Software Availability: Aug-2012 |

The flags file that was used to format this result can be browsed at [http://www.spec.org/omp2012/flags/SGI-OMP2012-ic13.html](http://www.spec.org/omp2012/flags/SGI-OMP2012-ic13.html)

You can also download the XML flags source by saving the following link: [http://www.spec.org/omp2012/flags/SGI-OMP2012-ic13.xml](http://www.spec.org/omp2012/flags/SGI-OMP2012-ic13.xml)

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

Tested with SPEC OMP2012 v1.0.
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