# SPEC® CINT2006 Result

## Fujitsu

**PRIMERGY TX140 S1, Intel Core i3-2100, 3.10 GHz**

<table>
<thead>
<tr>
<th>CPU2006 license: 19</th>
<th>Test date: May-2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test sponsor: Fujitsu</td>
<td>Hardware Availability: Jun-2011</td>
</tr>
<tr>
<td>Tested by: Fujitsu</td>
<td>Software Availability: Jan-2011</td>
</tr>
</tbody>
</table>

| SPECint®_rate2006 = 78.1 | SPECint_rate_base2006 = 75.1 |

### Hardware

<table>
<thead>
<tr>
<th>CPU Name:</th>
<th>Intel Core i3-2100</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU Characteristics:</td>
<td></td>
</tr>
<tr>
<td>CPU MHz:</td>
<td>3100</td>
</tr>
<tr>
<td>FPU:</td>
<td>Integrated</td>
</tr>
<tr>
<td>CPU(s) enabled:</td>
<td>2 cores, 1 chip, 2 cores/chip, 2 threads/core</td>
</tr>
<tr>
<td>CPU(s) orderable:</td>
<td>1 chip</td>
</tr>
<tr>
<td>Primary Cache:</td>
<td>32 KB I + 32 KB D on chip per core</td>
</tr>
<tr>
<td>Secondary Cache:</td>
<td>256 KB I+D on chip per core</td>
</tr>
<tr>
<td>L3 Cache:</td>
<td>3 MB I+D on chip per chip</td>
</tr>
<tr>
<td>Other Cache:</td>
<td>None</td>
</tr>
<tr>
<td>Memory:</td>
<td>8 GB (2 x 4 GB 2Rx8 PC3-10600E-9, ECC)</td>
</tr>
<tr>
<td>Disk Subsystem:</td>
<td>1 x SATA, 300 GB, 7200 RPM</td>
</tr>
<tr>
<td>Other Hardware:</td>
<td>None</td>
</tr>
</tbody>
</table>

### Software

<table>
<thead>
<tr>
<th>Operating System:</th>
<th>SUSE Linux Enterprise Server 11 (x86_64) with SP1, Kernel 2.6.32.12-0.7-default</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compiler:</td>
<td>Intel C++ Compiler XE for applications running on IA-32 Version 12.0.1.116 Build 20101116</td>
</tr>
<tr>
<td>Auto Parallel:</td>
<td>No</td>
</tr>
<tr>
<td>File System:</td>
<td>ext3</td>
</tr>
<tr>
<td>System State:</td>
<td>Run level 3 (multi-user)</td>
</tr>
<tr>
<td>Base Pointers:</td>
<td>32-bit</td>
</tr>
<tr>
<td>Peak Pointers:</td>
<td>32/64-bit</td>
</tr>
<tr>
<td>Other Software:</td>
<td>Microquill SmartHeap V9.01</td>
</tr>
</tbody>
</table>

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Standard Performance Evaluation Corporation
info@spec.org
http://www.spec.org/
Fujitsu
PRIMERGY TX140 S1, Intel Core i3-2100, 3.10 GHz

SPECint_rate2006 = 78.1
SPECint_rate_base2006 = 75.1

Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Copies</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>400.perlbench</td>
<td>4</td>
<td>654</td>
<td>59.8</td>
<td>653</td>
<td>59.9</td>
<td>654</td>
<td>59.7</td>
<td>4</td>
<td>538</td>
<td>72.6</td>
<td>548</td>
<td>71.3</td>
<td>547</td>
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<td>401.bzip2</td>
<td>4</td>
<td>939</td>
<td>41.1</td>
<td>938</td>
<td>41.2</td>
<td>948</td>
<td>40.7</td>
<td>4</td>
<td>880</td>
<td>43.9</td>
<td>896</td>
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<td>882</td>
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<tr>
<td>403.gcc</td>
<td>4</td>
<td>494</td>
<td>65.1</td>
<td>496</td>
<td>64.9</td>
<td>496</td>
<td>65.0</td>
<td>4</td>
<td>492</td>
<td>65.5</td>
<td>489</td>
<td>65.8</td>
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<tr>
<td>429.mcf</td>
<td>4</td>
<td>454</td>
<td>80.3</td>
<td>455</td>
<td>80.1</td>
<td>455</td>
<td>80.2</td>
<td>2</td>
<td>213</td>
<td>85.6</td>
<td>211</td>
<td>86.3</td>
<td>213</td>
</tr>
<tr>
<td>445.gobmk</td>
<td>4</td>
<td>694</td>
<td>60.5</td>
<td>684</td>
<td>61.3</td>
<td>683</td>
<td>61.5</td>
<td>4</td>
<td>677</td>
<td>62.0</td>
<td>669</td>
<td>62.7</td>
<td>668</td>
</tr>
<tr>
<td>456.hmmer</td>
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<td>394</td>
<td>94.6</td>
<td>393</td>
<td>94.9</td>
<td>400</td>
<td>93.4</td>
<td>4</td>
<td>394</td>
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<td>393</td>
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<td>400</td>
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<tr>
<td>458.sjeng</td>
<td>4</td>
<td>825</td>
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<td>462.libquantum</td>
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<td>393</td>
<td>211</td>
<td>393</td>
<td>211</td>
<td>392</td>
<td>4</td>
<td>211</td>
<td>393</td>
<td>211</td>
<td>393</td>
<td>211</td>
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<td>840</td>
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<td>806</td>
<td>102</td>
<td>890</td>
<td>99.5</td>
<td>4</td>
<td>846</td>
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<td>107</td>
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<td>471.omnetpp</td>
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<td>506</td>
<td>49.4</td>
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<td>49.4</td>
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<td>472</td>
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<td>473</td>
<td>52.9</td>
<td>469</td>
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<tr>
<td>473.astar</td>
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<td>602</td>
<td>46.6</td>
<td>597</td>
<td>47.0</td>
<td>592</td>
<td>47.4</td>
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<td>602</td>
<td>46.6</td>
<td>597</td>
<td>47.0</td>
<td>592</td>
</tr>
<tr>
<td>483.xalancbmk</td>
<td>4</td>
<td>350</td>
<td>78.9</td>
<td>348</td>
<td>79.2</td>
<td>351</td>
<td>78.5</td>
<td>4</td>
<td>350</td>
<td>78.9</td>
<td>348</td>
<td>79.2</td>
<td>351</td>
</tr>
</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.
numactl was used to bind copies to the cores

Operating System Notes
'ulimit -s unlimited' was used to set the stacksize to unlimited prior to run
Large pages were not enabled for this run

General Notes
For information about Fujitsu please visit: http://www.fujitsu.com
Binaries were compiled on RHEL5.5
This result was measured on the PRIMERGY TX140 S1. The PRIMERGY TX120 S3 and the PRIMERGY TX140 S1 are electronically equivalent.

Base Compiler Invocation
C benchmarks:
  icc -m32

C++ benchmarks:
  icpc -m32
Fujitsu

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<td>Jan-2011</td>
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</tbody>
</table>

**Base Portability Flags**

- 400.perlbench: -DSPEC_CPU_LINUX_IA32
- 462.libquantum: -DSPEC_CPU_LINUX
- 483.xalancbmk: -DSPEC_CPU_LINUX

**Base Optimization Flags**

C benchmarks:
- -xAVX  -ipo  -O3  -no-prec-div  -opt-prefetch
- -B /usr/share/libhugetlbfs/ -Wl,-hugetlbfs-link=BDT

C++ benchmarks:
- -xAVX  -ipo  -O3  -no-prec-div  -opt-prefetch  -Wl,-z,muldefs
- -L/smartheap -lsmartheap
- -B /usr/share/libhugetlbfs/ -Wl,-hugetlbfs-link=BDT

**Base Other Flags**

C benchmarks:
- 403.gcc: -Dalloca=_alloca

**Peak Compiler Invocation**

C benchmarks (except as noted below):
- icc  -m32
  - 400.perlbench: icc  -m64
  - 401.bzip2: icc  -m64
  - 458.sjeng: icc  -m64

C++ benchmarks:
- icpc  -m32

**Peak Portability Flags**

- 400.perlbench: -DSPEC_CPU_LP64  -DSPEC_CPU_LINUX_X64
- 401.bzip2: -DSPEC_CPU_LP64
- 458.sjeng: -DSPEC_CPU_LP64
- 462.libquantum: -DSPEC_CPU_LINUX

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Peak Portability Flags (Continued)

483.xalancbmk: -DSPEC_CPU_LINUX

Peak Optimization Flags

C benchmarks:

400.perlbench: -xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
   -no-prec-div(pass 2) -prof-use(pass 2)
   -B /usr/share/libhugetlbfs/ -Wl,-melf_x86_64 -Wl,-hugetlbfs-link=BDT

401.bzip2: -xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
   -no-prec-div(pass 2) -prof-use(pass 2) -opt-prefetch
   -auto-ilp32 -ansi-alias
   -B /usr/share/libhugetlbfs/ -Wl,-melf_x86_64 -Wl,-hugetlbfs-link=BDT

403.gcc: -xAVX -ipo -O3 -no-prec-div
   -B /usr/share/libhugetlbfs/ -Wl,-hugetlbfs-link=BDT

429.mcf: -xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
   -no-prec-div(pass 2) -prof-use(pass 2) -ansi-alias
   -auto-ilp32

445.gobmk: -xAVX(pass 2) -prof-gen(pass 1) -prof-use(pass 2)
   -ansi-alias -auto-ilp32

456.hmmer: basepeak = yes

458.sjeng: -xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
   -no-prec-div(pass 2) -prof-use(pass 2) -unroll4
   -auto-ilp32
   -B /usr/share/libhugetlbfs/ -Wl,-melf_x86_64 -Wl,-hugetlbfs-link=BDT

462.libquantum: basepeak = yes

464.h264ref: -xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
   -no-prec-div(pass 2) -prof-use(pass 2) -unroll2
   -ansi-alias

C++ benchmarks:

471.omnetpp: -xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
   -no-prec-div(pass 2) -prof-use(pass 2) -ansi-alias
   -opt-ra-region-strategy=block -Wl,-z,muldefs
   -L/smartheap -lsmartheap

473.astar: basepeak = yes

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Peak Optimization Flags (Continued)

483.xalancbmk: basepeak = yes

Peak Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca

The flags files that were used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/Fujitsu-Platform.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2006/flags/Intel-ic12.0-linux64-revB.20110316.xml
http://www.spec.org/cpu2006/flags/Fujitsu-Platform.xml

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For other inquiries, please contact webmaster@spec.org.

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