# SPEC® CFP2006 Result

## NEC Corporation

**Address:** Express5800/110Rh-1 (Intel Xeon processor 3060)

<table>
<thead>
<tr>
<th>SPECfp_rate2006</th>
<th>SPECfp_rate_base2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>24.4</td>
<td>23.7</td>
</tr>
</tbody>
</table>

### Hardware

- **CPU Name:** Intel Xeon 3060
- **CPU Characteristics:** 2.40 GHz, 4 MB L2, 1066 MHz bus
- **CPU MHz:** 2400
- **FPU:** Integrated
- **CPU(s) enabled:** 2 cores, 1 chip, 2 cores/chip
- **CPU(s) orderable:** 1 chip
- **Primary Cache:** 32 KB I + 32 KB D on chip per core
- **Secondary Cache:** 4 MB I+D on chip per chip

### Software

- **Operating System:** SUSE Linux Enterprise Server 10 (x86_64), Kernel 2.6.16.21-0.8-smp
- **Compiler:** Intel C++ Compiler for Linux32 and Linux64 version 9.1 Build 20070320 Package ID: l_cc_c_9.1.049
- **Compiler:** Intel Fortran Compiler for Linux32 and Linux64 version 9.1 Build 20070320 Package ID: l_fc_c_9.1.045
- **Auto Parallel:** No

### CactusADM

```
| Copies | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 | 32 | 34 | 36 | 38 | 40 | 42 | 44 |
|--------|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|        | 25.1 | | | | | | | | | | | | | | | | | | | | | | | |
|        | 32.8 | | | | | | | | | | | | | | | | | | | | | | | |
|        | 25.6 | | | | | | | | | | | | | | | | | | | | | | | |
|        | 29.9 | | | | | | | | | | | | | | | | | | | | | | | |
|        | 29.0 | | | | | | | | | | | | | | | | | | | | | | | |
|        | 31.9 | | | | | | | | | | | | | | | | | | | | | | | |
|        | 40.9 | | | | | | | | | | | | | | | | | | | | | | | |
|        | 41.9 | | | | | | | | | | | | | | | | | | | | | | | |
```

### Leslie3D

```
|        | 15.9 | | | | | | | | | | | | | | | | | | | | | | | |
|        | 25.2 | | | | | | | | | | | | | | | | | | | | | | | |
|        | 41.9 | | | | | | | | | | | | | | | | | | | | | | | |
|        | 40.9 | | | | | | | | | | | | | | | | | | | | | | | |
```

### Soplex

```
|        | 19.6 | | | | | | | | | | | | | | | | | | | | | | | |
|        | 18.2 | | | | | | | | | | | | | | | | | | | | | | | |
|        | 32.5 | | | | | | | | | | | | | | | | | | | | | | | |
|        | 43.0 | | | | | | | | | | | | | | | | | | | | | | | |
```

### PovRay

```
|        | 25.9 | | | | | | | | | | | | | | | | | | | | | | | |
|        | 32.5 | | | | | | | | | | | | | | | | | | | | | | | |
|        | 25.4 | | | | | | | | | | | | | | | | | | | | | | | |
```

### Calculix

```
|        | 14.6 | | | | | | | | | | | | | | | | | | | | | | | |
|        | 23.8 | | | | | | | | | | | | | | | | | | | | | | | |
|        | 23.3 | | | | | | | | | | | | | | | | | | | | | | | |
|        | 25.6 | | | | | | | | | | | | | | | | | | | | | | | |
|        | 26.6 | | | | | | | | | | | | | | | | | | | | | | | |
```

### Other Applications

- **bwaves**: 25.1
- **gamess**: 32.8
- **milc**: 25.6
- **zeusmp**: 25.4
- **gromacs**: 29.9
- **cactusADM**: 31.9
- **leslie3d**: 15.9
- **namd**: 25.2
- **dealII**: 41.9
- **soplex**: 19.6
- **povray**: 18.2
- **calculix**: 25.9
- **GemsFDTD**: 14.6
- **tonto**: 23.8
- **lbm**: 14.0
- **wrf**: 25.6
- **sphinx3**: 26.6

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Standard Performance Evaluation Corporation
info@spec.org
http://www.spec.org/
SPEC CFP2006 Result

NEC Corporation
Express5800/110Rh-1
(Intel Xeon processor 3060)

SPECfp_rate2006 = 24.4
SPECfp_rate_base2006 = 23.7

CPU2006 license: 9006
Test sponsor: NEC Corporation
Tested by: NEC Corporation
Test date: Nov-2007
Hardware Availability: Nov-2006
Tested by: NEC Corporation
Software Availability: Apr-2007

L3 Cache: None
Other Cache: None
Memory: 4 GB (4x1 GB PC2-5300E, 2 rank, CL5-5-5, ECC)
Disk Subsystem: 1x80 GB SATAII, 7200RPM
Other Hardware: None

File System: ext2
System State: Multiuser, Runlevel 3
Base Pointers: 64-bit
Peak Pointers: 32/64-bit
Other Software: None

Results Table

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<td>1568</td>
<td>24.9</td>
</tr>
</tbody>
</table>

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

Operating System Notes

'ulimit -s unlimited' was used to set the stack size to unlimited prior to run "/usr/bin/taskset" used to bind processes to CPUs

General Notes

The system bus runs at 1066 MHz
All binaries were built with 64-bit Intel compiler except:
433.milc, 434.zeusmp, 450.soplex, 470.lbm and 482.sphinx3 in peak were built with 32-bit Intel compiler by changing the path for include and library files.
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Software Availability: Apr-2007

Base Compiler Invocation

C benchmarks:
icc

C++ benchmarks:
icpc

Fortran benchmarks:
ifort

Benchmarks using both Fortran and C:
icc ifort

Base Portability Flags

410.bwaves: -DSPEC_CPU_LP64
416.gameess: -DSPEC_CPU_LP64
433.milc: -DSPEC_CPU_LP64
434.zeusmp: -DSPEC_CPU_LP64
435.gromacs: -DSPEC_CPU_LP64 -nofor_main
436.cactusADM: -DSPEC_CPU_LP64 -nofor_main
437.leslie3d: -DSPEC_CPU_LP64
444.namd: -DSPEC_CPU_LP64
447.dealII: -DSPEC_CPU_LP64
450.soplex: -DSPEC_CPU_LP64
453.povray: -DSPEC_CPU_LP64
454.calculix: -DSPEC_CPU_LP64 -nofor_main
459.GemsFDTD: -DSPEC_CPU_LP64
465.tonto: -DSPEC_CPU_LP64
470.lbm: -DSPEC_CPU_LP64
481.wrf: -DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG -DSPEC_CPU_LINUX
482.sphinx3: -DSPEC_CPU_LP64

Base Optimization Flags

C benchmarks:
-fast

C++ benchmarks:
-fast

Fortran benchmarks:
-fast

Benchmarks using both Fortran and C:
-fast
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Peak Compiler Invocation

C benchmarks:

```
/opt/intel/cc/9.1.049/bin/icc -I/opt/intel/cc/9.1.049/include
-L/opt/intel/cc/9.1.049/lib
```

C++ benchmarks (except as noted below):

```
icpc
```

```
450.soplex: /opt/intel/cc/9.1.049/bin/icpc
-I/opt/intel/cc/9.1.049/include -L/opt/intel/cc/9.1.049/lib
```

Fortran benchmarks (except as noted below):

```
ifort
```

```
434.zeusmp: /opt/intel/fc/9.1.045/bin/ifort
-I/opt/intel/fc/9.1.045/include -L/opt/intel/fc/9.1.045/lib
```

Benchmarks using both Fortran and C:

```
icc ifort
```

Peak Portability Flags

```
410.bwaves: -DSPEC_CPU_LP64
416.gamess: -DSPEC_CPU_LP64
435.gromacs: -DSPEC_CPU_LP64 -nofor_main
436.cactusADM: -DSPEC_CPU_LP64 -nofor_main
437.leslie3d: -DSPEC_CPU_LP64 -nofor_main
444.namd: -DSPEC_CPU_LP64
447.dealII: -DSPEC_CPU_LP64
453.povray: -DSPEC_CPU_LP64
454.calculix: -DSPEC_CPU_LP64 -nofor_main
459.GemsFDTD: -DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG -DSPEC_CPU_LINUX
465.tonto: -DSPEC_CPU_LP64
481.wrf: -DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG -DSPEC_CPU_LINUX
```

Peak Optimization Flags

C benchmarks:

```
433.milc: -prof_gen(pass 1) -prof_use(pass 2) -fast
470.lbm: Same as 433.milc
482.sphinx3: -fast
```

C++ benchmarks:

```
Continued on next page
```
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Test date: Nov-2007
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Software Availability: Apr-2007

Peak Optimization Flags (Continued)

444.namd: basepeak = yes
447.dealII: -prof_gen(pass 1) -prof_use(pass 2) -fast
450.soplex: Same as 447.dealII
453.povray: Same as 447.dealII

Fortran benchmarks:
410.bwaves: basepeak = yes
416.gamess: basepeak = yes
434.zeusmp: -fast
437.leslie3d: basepeak = yes
459.GemsFDTD: basepeak = yes
465.tonto: -prof_gen(pass 1) -prof_use(pass 2) -fast

Benchmarks using both Fortran and C:
435.gromacs: -prof_gen(pass 1) -prof_use(pass 2) -fast
436.cactusADM: basepeak = yes
454.calculix: Same as 435.gromacs
481.wrf: basepeak = yes

The flags file that was used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/NEC-ic91-FP-linux-flags.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/NEC-ic91-FP-linux-flags.xml

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

Tested with SPEC CPU2006 v1.0.
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