SPEC® CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Intel Corporation

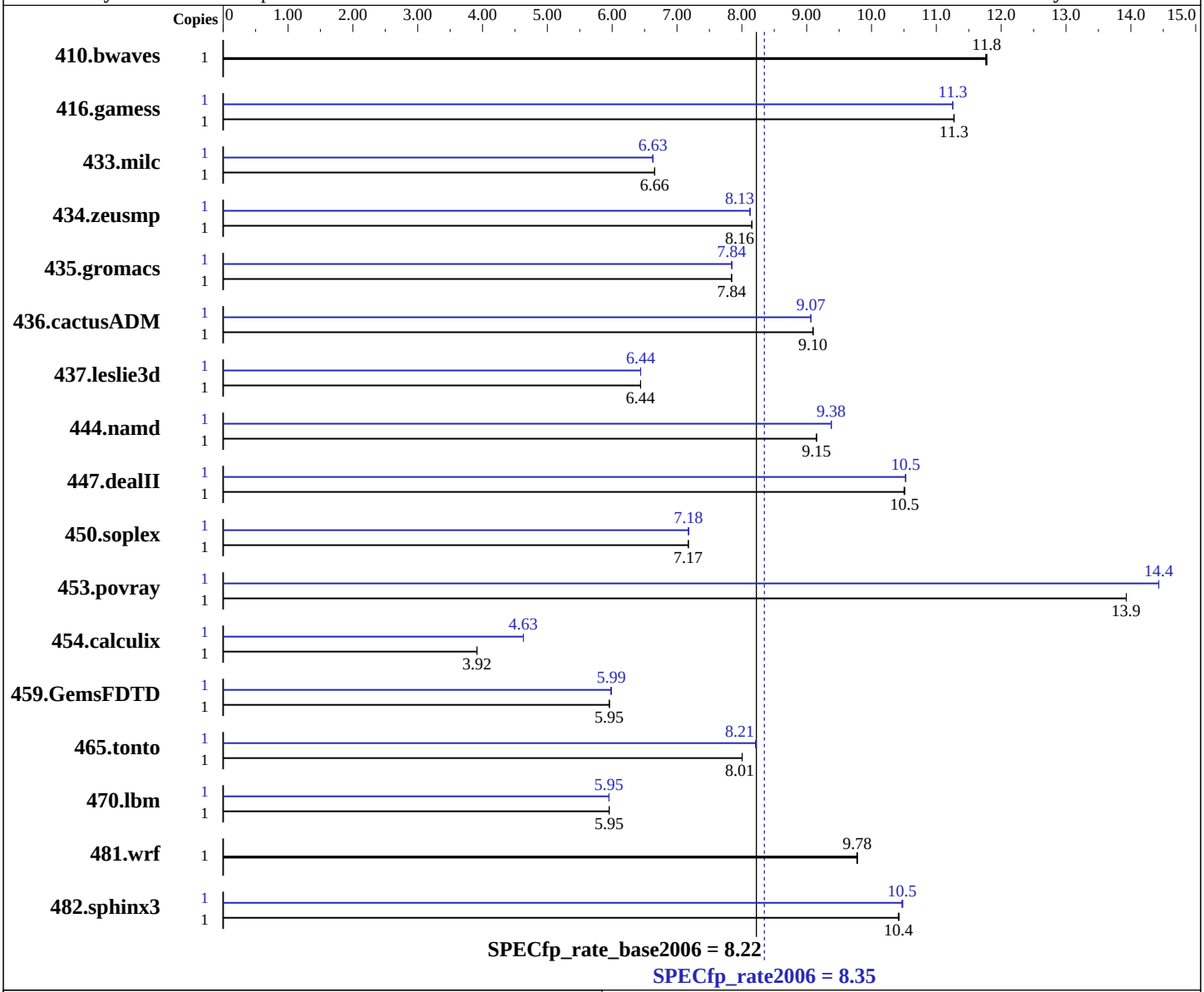
Lenovo ThinkPad T43 (Intel Pentium M 780)

SPECfp®_rate2006 = 8.35

SPECfp_rate_base2006 = 8.22

CPU2006 license: 13
Test sponsor: Intel Corporation
Tested by: Intel Corporation

Test date: Dec-2007
Hardware Availability: Jan-2008
Software Availability: Nov-2007



Hardware

CPU Name:	Intel Pentium M 780
CPU Characteristics:	
CPU MHz:	2266
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 1 core/chip
CPU(s) orderable:	1 chip
Primary Cache:	32 KB I + 32 KB D on chip per chip
Secondary Cache:	2 MB I+D on chip per chip

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Software

Operating System:	Windows Vista Ultimate (32-bit)
Compiler:	Intel C++ Compiler for IA32 version 10.1 Build 20070913 Package ID: w_cc_p_10.1.011 Intel Fortran Compiler for IA32 version 10.1 Build 20070913 Package ID: w_fc_p_10.1.011 Microsoft Visual Studio 2005 SP1 (for libraries)
Auto Parallel:	No
File System:	NTFS
System State:	Default

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L3 Cache: None
Other Cache: None
Memory: 2 GB (2x1GB Hynix DDR2-667 CL5)
Disk Subsystem: Hitachi 100 GB SATA, 7200 RPM
Other Hardware: None

Base Pointers: 32-bit
Peak Pointers: 32-bit
Other Software: None
SmartHeap Library Version 8.1 from http://www.microquill.com/

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	1	1154	11.8	1155	11.8	**1154**	**11.8**	1	1154	11.8	1155	11.8	**1154**	**11.8**
416.gamess	1	1736	11.3	**1737**	**11.3**	1737	11.3	1	**1740**	**11.3**	1740	11.3	1740	11.3
433.milc	1	1380	6.65	**1379**	**6.66**	1379	6.66	1	1385	6.63	**1385**	**6.63**	1385	6.63
434.zeusmp	1	**1116**	**8.16**	1116	8.16	1116	8.15	1	**1120**	**8.13**	1120	8.13	1120	8.13
435.gromacs	1	911	7.84	**910**	**7.84**	910	7.84	1	**910**	**7.84**	910	7.84	910	7.85
436.cactusADM	1	1314	9.10	1313	9.10	**1313**	**9.10**	1	1318	9.07	**1318**	**9.07**	1318	9.06
437.leslie3d	1	1460	6.44	**1460**	**6.44**	1460	6.44	1	1460	6.44	**1460**	**6.44**	1460	6.44
444.namd	1	876	9.15	876	9.15	**876**	**9.15**	1	855	9.38	**855**	**9.38**	855	9.38
447.dealII	1	**1088**	**10.5**	1088	10.5	1089	10.5	1	1087	10.5	1087	10.5	**1087**	**10.5**
450.soplex	1	1163	7.17	**1162**	**7.17**	1162	7.18	1	**1162**	**7.18**	1162	7.18	1162	7.18
453.povray	1	382	13.9	**382**	**13.9**	382	13.9	1	**369**	**14.4**	369	14.4	369	14.4
454.calculix	1	2108	3.91	**2107**	**3.92**	2107	3.92	1	**1782**	**4.63**	1781	4.63	1782	4.63
459.GemsFDTD	1	**1782**	**5.95**	1782	5.95	1780	5.96	1	1772	5.99	**1772**	**5.99**	1774	5.98
465.tonto	1	**1229**	**8.01**	1229	8.00	1229	8.01	1	1198	8.21	**1198**	**8.21**	1198	8.22
470.lbm	1	2309	5.95	**2307**	**5.95**	2307	5.95	1	2309	5.95	**2309**	**5.95**	2308	5.95
481.wrf	1	**1142**	**9.78**	1143	9.78	1141	9.79	1	**1142**	**9.78**	1143	9.78	1141	9.79
482.sphinx3	1	**1871**	**10.4**	1872	10.4	1870	10.4	1	**1861**	**10.5**	1861	10.5	1859	10.5

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

General Notes

```
The system bus runs at 533 MHz
Binaries were built on Windows Vista (32-bit)
The following VS 2005 SP1 updates were applied: KB926601 and KB932232
```

Base Compiler Invocation

C benchmarks:

```
icl -Qvc8 -Qc99
```

C++ benchmarks:

```
icl -Qvc8
```

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Base Compiler Invocation (Continued)

Fortran benchmarks:
ifort

Benchmarks using both Fortran and C:
icl -Qvc8 -Qc99 ifort

Base Portability Flags

436.cactusADM: -Qlowercase /assume:underscore
444.namd: -TP
447.dealII: -DDEAL_II_MEMBER_VAR_SPECIALIZATION_BUG
453.povray: -DSPEC_CPU_WINDOWS_ICL
454.calculix: -DSPEC_CPU_NOZMODIFIER -Qlowercase
481.wrf: -DSPEC_CPU_WINDOWS_ICL

Base Optimization Flags

C benchmarks:
-QxB -Qipo -O3 -Qprec-div- /F1000000000

C++ benchmarks:
-QxB -Qipo -O3 -Qprec-div- -Qcxx_features /F1000000000 shlw32m.lib
-link /FORCE:MULTIPLE

Fortran benchmarks:
-QxB -Qipo -O3 -Qprec-div- /F1000000000

Benchmarks using both Fortran and C:
-QxB -Qipo -O3 -Qprec-div- /F1000000000

Peak Compiler Invocation

C benchmarks:
icl -Qvc8 -Qc99

C++ benchmarks:
icl -Qvc8

Fortran benchmarks:
ifort

Benchmarks using both Fortran and C:
icl -Qvc8 -Qc99 ifort

Peak Portability Flags

436.cactusADM: -Qlowercase /assume:underscore
444.namd: -TP
447.dealII: -DDEAL_II_MEMBER_VAR_SPECIALIZATION_BUG
453.povray: -DSPEC_CPU_WINDOWS_ICL
454.calculix: -DSPEC_CPU_NOZMODIFIER -Qlowercase
481.wrf: -DSPEC_CPU_WINDOWS_ICL

Peak Optimization Flags

C benchmarks:

433.milc: -QxB -Qipo -O3 -Qprec-div- -Qunroll2 -Oa /F1000000000

470.lbm: -QxB -Qipo -O3 -Qprec-div- -Qunroll2 -Qscalar-rep- -Qprefetch /F1000000000

482.sphinx3: -QxB -Qipo -O3 -Qprec-div- -Qunroll2 /F1000000000

C++ benchmarks:

444.namd: -QxB -Qipo -O3 -Qprec-div- -Oa -Qcxx_features /F1000000000 shlw32m.lib -link /FORCE:MULTIPLE

447.dealII: -QxB -Qipo -O3 -Qprec-div- -Qunroll2 -Qprefetch -Qcxx_features /F1000000000 shlw32m.lib -link /FORCE:MULTIPLE

450.soplex: -QxB -Qipo -O3 -Qprec-div- -Qcxx_features /F1000000000 shlw32m.lib -link /FORCE:MULTIPLE

453.povray: -QxB -Qipo -O3 -Qprec-div- -Qunroll4 -Qansi-alias -Qcxx_features /F1000000000 shlw32m.lib -link /FORCE:MULTIPLE

Fortran benchmarks:

410.bwaves: basepeak = yes

416.gamess: -QxB -Qipo -O3 -Qprec-div- -Qunroll2 -Ob0 -Qansi-alias -Qscalar-rep- /F1000000000

434.zeusmp: -QxB -O2 -Qprec-div- -Qunroll0 -Qscalar-rep- /F1000000000

437.leslie3d: -QxB -Qipo -O3 -Qprec-div- -Qprefetch /F1000000000

459.GemsFDTD: -QxB -Qipo -O3 -Qprec-div- -Qunroll2 -Ob0 -Qprefetch /F1000000000

Continued on next page

Peak Optimization Flags (Continued)

465.tonto: `-QxB -Qipo -O3 -Qprec-div- -Qunroll4 -Qauto /F1000000000`

Benchmarks using both Fortran and C:

435.gromacs: `-QxB -Qipo -O3 -Qprec-div- -Oa -Qprefetch /F1000000000`

436.cactusADM: `-QxB -Qipo -O3 -Qprec-div- -Qunroll2 -Qprefetch /F1000000000`

454.calculix: `-QxB -Qipo -O3 -Qprec-div- -Qunroll-aggressive /F1000000000`

481.wrf: `basepeak = yes`

The flags file that was used to format this result can be browsed at
`http://www.spec.org/cpu2006/flags/Intel-ic10-ia32-intel64-linux-flags.20090714.09.html`

You can also download the XML flags source by saving the following link:
`http://www.spec.org/cpu2006/flags/Intel-ic10-ia32-intel64-linux-flags.20090714.09.xml`

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