



SPEC® CFP2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Hypertechnologies Ciara, Inc Orion HF320-G3

SPECfp®2006 = 132

SPECfp_base2006 = 129

CPU2006 license: 4531

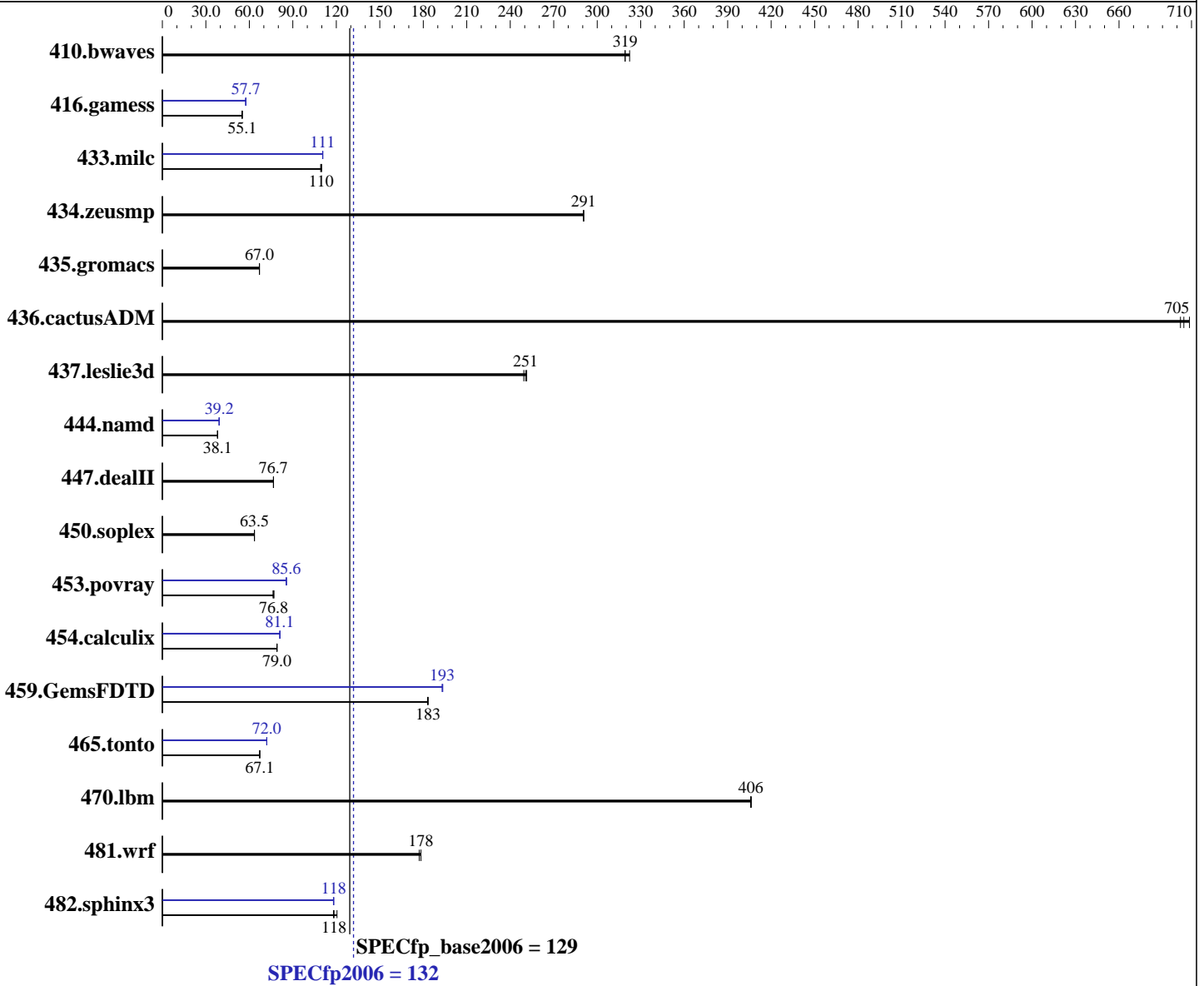
Test sponsor: Hypertechnologies Ciara, Inc

Tested by: Hypertechnologies Ciara, Inc

Test date: Apr-2015

Hardware Availability: Feb-2015

Software Availability: Aug-2015



Hardware

CPU Name: Intel Core i7-5960X
 CPU Characteristics: Intel Turbo Boost Technology disabled
 CPU MHz: 4500
 FPU: Integrated
 CPU(s) enabled: 8 cores, 1 chip, 8 cores/chip
 CPU(s) orderable: 1 chip
 Primary Cache: 32 KB I + 32 KB D on chip per core
 Secondary Cache: 256 KB I+D on chip per core

Continued on next page

Software

Operating System: Red Hat Enterprise Linux Server release 7.0 (Maipo)
 3.10.0-123.el7.x86_64
 Compiler: C/C++: Version 15.0.0.090 of Intel C++ Studio XE for Linux;
 Fortran: Version 15.0.0.090 of Intel Fortran Studio XE for Linux
 Auto Parallel: Yes
 File System: xfs

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Hypertechnologies Ciara, Inc Orion HF320-G3

SPECfp2006 = **132**
SPECfp_base2006 = **129**

CPU2006 license: 4531
Test sponsor: Hypertechnologies Ciara, Inc
Tested by: Hypertechnologies Ciara, Inc
Test date: Apr-2015
Hardware Availability: Feb-2015
Software Availability: Aug-2015

L3 Cache: 20 MB I+D on chip per chip
Other Cache: None
Memory: 64 GB (8 x 8 GB 2Rx8 PC4-2666P-U)
Disk Subsystem: 2x 240 GB SATA SSD, RAID 0
Other Hardware: None
System State: Run level 3 (multi-user)
Base Pointers: 64-bit
Peak Pointers: 32/64-bit
Other Software: None

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	42.2	322	42.6	319	42.6	319	42.2	322	42.6	319	42.6	319
416.gamess	356	55.1	357	54.9	355	55.2	341	57.3	339	57.7	339	57.7
433.milc	83.5	110	84.1	109	83.7	110	83.0	111	82.9	111	83.0	111
434.zeusmp	31.3	291	31.3	291	31.3	291	31.3	291	31.3	291	31.3	291
435.gromacs	107	67.0	107	67.0	107	66.9	107	67.0	107	67.0	107	66.9
436.cactusADM	16.9	709	17.0	702	17.0	705	16.9	709	17.0	702	17.0	705
437.leslie3d	37.5	251	37.7	249	37.4	251	37.5	251	37.7	249	37.4	251
444.namd	211	38.1	211	38.1	210	38.1	205	39.2	205	39.2	205	39.2
447.dealII	149	76.7	149	76.6	149	76.7	149	76.7	149	76.6	149	76.7
450.soplex	131	63.5	131	63.5	131	63.6	131	63.5	131	63.5	131	63.6
453.povray	69.2	76.8	69.1	76.9	69.7	76.3	62.2	85.6	62.1	85.7	62.3	85.4
454.calculix	104	79.0	104	79.2	104	79.0	102	81.1	102	81.1	102	81.0
459.GemsFDTD	57.9	183	58.0	183	57.9	183	54.8	193	54.9	193	55.0	193
465.tonto	146	67.3	147	67.1	147	67.1	137	72.0	136	72.1	137	72.0
470.lbm	33.8	406	33.9	406	33.8	406	33.8	406	33.9	406	33.8	406
481.wrf	63.0	177	62.6	178	62.6	178	63.0	177	62.6	178	62.6	178
482.sphinx3	162	120	165	118	165	118	165	118	165	118	165	118

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

Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"

Platform Notes

Sysinfo program /usr/cpu2006/config/sysinfo.rev6914
\$Rev: 6914 \$ \$Date:: 2014-06-25 #\$ e3fbb8667b5a285932ceab81e28219e1
running on localhost.localdomain Tue Apr 14 13:08:54 2015

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/cpu2006/Docs/config.html#sysinfo>

From /proc/cpuinfo
model name : Intel(R) Core(TM) i7-5960X CPU @ 3.00GHz
Continued on next page



SPEC CFP2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Hypertechnologies Ciara, Inc
Orion HF320-G3

SPECfp2006 = 132
SPECfp_base2006 = 129

CPU2006 license: 4531

Test sponsor: Hypertechnologies Ciara, Inc

Tested by: Hypertechnologies Ciara, Inc

Test date: Apr-2015

Hardware Availability: Feb-2015

Software Availability: Aug-2015

Platform Notes (Continued)

```

1 "physical id"s (chips)
8 "processors"
cores, siblings (Caution: counting these is hw and system dependent. The
following excerpts from /proc/cpuinfo might not be reliable. Use with
caution.)
  cpu cores : 8
  siblings  : 8
  physical 0: cores 0 1 2 3 4 5 6 7
cache size : 20480 KB

From /proc/meminfo
MemTotal:      65711324 kB
HugePages_Total:      0
Hugepagesize:   2048 kB

From /etc/*release* /etc/*version*
os-release:
NAME="Red Hat Enterprise Linux Server"
VERSION="7.0 (Maipo)"
ID="rhel"
ID_LIKE="fedora"
VERSION_ID="7.0"
PRETTY_NAME="Red Hat Enterprise Linux Server 7.0 (Maipo)"
ANSI_COLOR="0;31"
CPE_NAME="cpe:/o:redhat:enterprise_linux:7.0:GA:server"
redhat-release: Red Hat Enterprise Linux Server release 7.0 (Maipo)
system-release: Red Hat Enterprise Linux Server release 7.0 (Maipo)
system-release-cpe: cpe:/o:redhat:enterprise_linux:7.0:ga:server

uname -a:
Linux localhost.localdomain 3.10.0-123.el7.x86_64 #1 SMP Mon May 5 11:16:57
EDT 2014 x86_64 x86_64 x86_64 GNU/Linux

run-level 3 Apr 14 09:14 last=5

SPEC is set to: /usr/cpu2006
Filesystem      Type  Size  Used Avail Use% Mounted on
/dev/mapper/rhel-root xfs  434G  144G  291G  34% /
Additional information from dmidecode:

Warning: Use caution when you interpret this section. The 'dmidecode' program
reads system data which is "intended to allow hardware to be accurately
determined", but the intent may not be met, as there are frequent changes to
hardware, firmware, and the "DMTF SMBIOS" standard.

BIOS American Megatrends Inc. 8804 01/27/2015
Memory:
8x Undefined CMD32GX4M4A2666C15 8 GB 2 rank 2133 MHz, configured at 2666 MHz

(End of data from sysinfo program)

```



SPEC CFP2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Hypertechnologies Ciara, Inc
Orion HF320-G3

SPECfp2006 = 132
SPECfp_base2006 = 129

CPU2006 license: 4531

Test sponsor: Hypertechnologies Ciara, Inc

Tested by: Hypertechnologies Ciara, Inc

Test date: Apr-2015

Hardware Availability: Feb-2015

Software Availability: Aug-2015

General Notes

Environment variables set by runspec before the start of the run:
Processor accelerated to 4.50 GHz with HyperThreading Disabled
KMP_AFFINITY = "granularity=fine,compact,1,0"
LD_LIBRARY_PATH = "/usr/cpu2006/libs/32:/usr/cpu2006/libs/64:/usr/cpu2006/sh"
OMP_NUM_THREADS = "8"
Binaries compiled on a system with 1x Core i5-4670K CPU + 16GB
memory using RedHat EL 7.0
Transparent Huge Pages enabled with:
echo always > /sys/kernel/mm/transparent_hugepage/enabled

Base Compiler Invocation

C benchmarks:
icc -m64

C++ benchmarks:
icpc -m64

Fortran benchmarks:
ifort -m64

Benchmarks using both Fortran and C:
icc -m64 ifort -m64

Base Portability Flags

410.bwaves: -DSPEC_CPU_LP64
416.gamess: -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



SPEC CFP2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Hypertechnologies Ciara, Inc
Orion HF320-G3

SPECfp2006 = 132
SPECfp_base2006 = 129

CPU2006 license: 4531

Test sponsor: Hypertechnologies Ciara, Inc

Tested by: Hypertechnologies Ciara, Inc

Test date: Apr-2015

Hardware Availability: Feb-2015

Software Availability: Aug-2015

Base Optimization Flags

C benchmarks:

-xCORE-AVX2 -ipo -O3 -no-prec-div -parallel -opt-prefetch
-ansi-alias

C++ benchmarks:

-xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch -ansi-alias

Fortran benchmarks:

-xCORE-AVX2 -ipo -O3 -no-prec-div -parallel -opt-prefetch

Benchmarks using both Fortran and C:

-xCORE-AVX2 -ipo -O3 -no-prec-div -parallel -opt-prefetch
-ansi-alias

Peak Compiler Invocation

C benchmarks:

icc -m64

C++ benchmarks:

icpc -m64

Fortran benchmarks:

ifort -m64

Benchmarks using both Fortran and C:

icc -m64 ifort -m64

Peak Portability Flags

Same as Base Portability Flags

Peak Optimization Flags

C benchmarks:

433.milc: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
-auto-ilp32 -ansi-alias

470.lbm: basepeak = yes

482.sphinx3: -xCORE-AVX2 -ipo -O3 -no-prec-div -unroll2 -ansi-alias
-parallel

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Hypertechnologies Ciara, Inc
Orion HF320-G3

SPECfp2006 = 132
SPECfp_base2006 = 129

CPU2006 license: 4531

Test sponsor: Hypertechnologies Ciara, Inc

Tested by: Hypertechnologies Ciara, Inc

Test date: Apr-2015

Hardware Availability: Feb-2015

Software Availability: Aug-2015

Peak Optimization Flags (Continued)

C++ benchmarks:

444.namd: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
-fno-alias -auto-ilp32

447.dealIII: basepeak = yes

450.soplex: basepeak = yes

453.povray: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2) -unroll4
-ansi-alias

Fortran benchmarks:

410.bwaves: basepeak = yes

416.gamess: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2) -unroll2
-inline-level=0 -scalar-rep-

434.zeusmp: basepeak = yes

437.leslie3d: basepeak = yes

459.GemsFDTD: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2) -unroll2
-inline-level=0 -opt-prefetch -parallel

465.tonto: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
-inline-calloc -opt-malloc-options=3 -auto -unroll4

Benchmarks using both Fortran and C:

435.gromacs: basepeak = yes

436.cactusADM: basepeak = yes

454.calculix: -xCORE-AVX2 -ipo -O3 -no-prec-div -auto-ilp32 -ansi-alias

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-ic15.0-official-linux64.html>

You can also download the XML flags source by saving the following link:

<http://www.spec.org/cpu2006/flags/Intel-ic15.0-official-linux64.xml>



SPEC CFP2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Hypertechnologies Ciara, Inc
Orion HF320-G3

SPECfp2006 = 132

SPECfp_base2006 = 129

CPU2006 license: 4531

Test sponsor: Hypertechnologies Ciara, Inc

Tested by: Hypertechnologies Ciara, Inc

Test date: Apr-2015

Hardware Availability: Feb-2015

Software Availability: Aug-2015

SPEC and SPECfp are registered trademarks of the Standard Performance Evaluation Corporation. All other brand and product names appearing in this result are trademarks or registered trademarks of their respective holders.

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

Tested with SPEC CPU2006 v1.2.
Report generated on Wed Jun 17 10:47:54 2015 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 16 June 2015.