SPEC® CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Fujitsu

PRIMEQUEST 3800B, Intel Xeon Platinum 8176, 2.10GHz

SPECrate2017_fp_base = 900

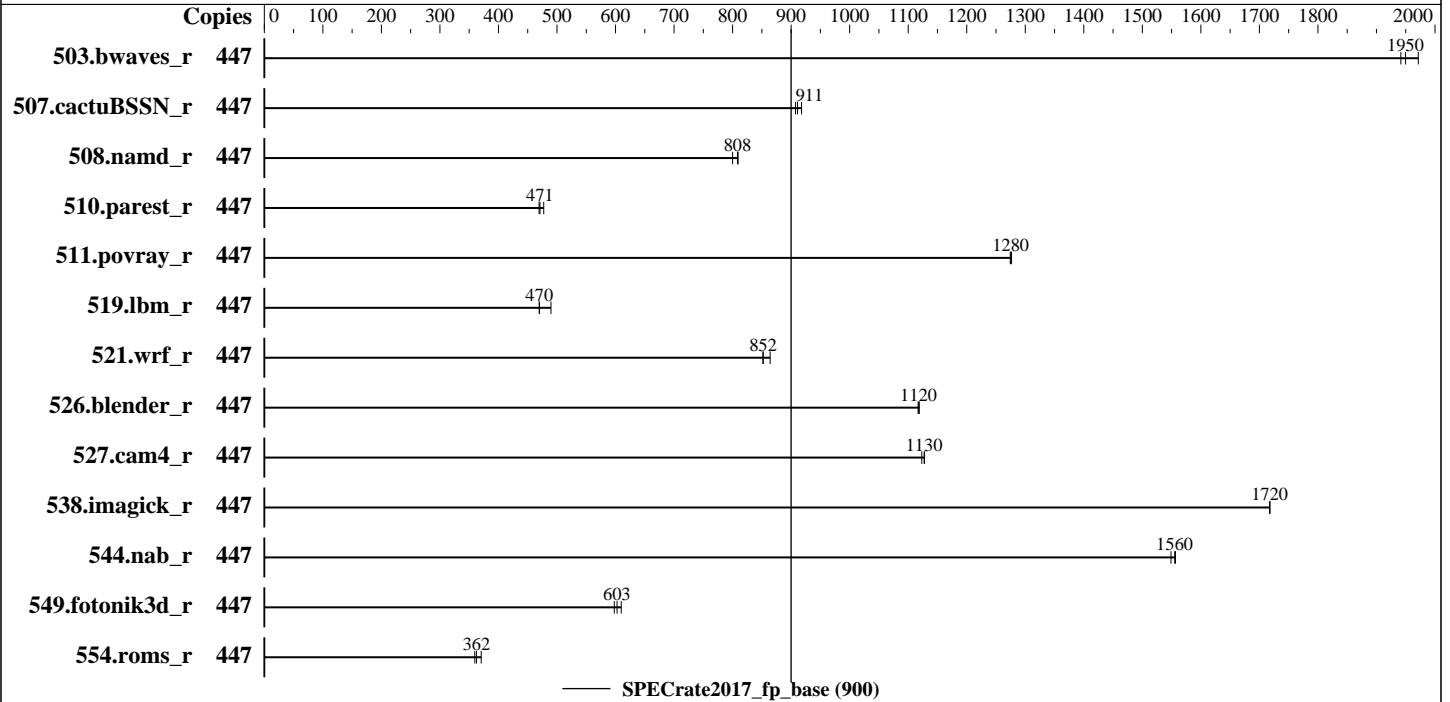SPECrate2017_fp_peak = Not Run

CPU2017 License: 19

Test Sponsor: Fujitsu

Tested by: Fujitsu

Test Date: Nov-2017

Hardware Availability: Jul-2017

Software Availability: Sep-2017

Benchmark	Copies	Result
503.bwaves_r	447	1950
507.cactuBSSN_r	447	911
508.namd_r	447	808
510.parest_r	447	471
511.povray_r	447	1280
519.lbm_r	447	470
521.wrf_r	447	852
526.blender_r	447	1120
527.cam4_r	447	1130
538.imagick_r	447	1720
544.nab_r	447	1560
549.fotonik3d_r	447	603
554.roms_r	447	362

SPECrate2017_fp_base (900)

Hardware

CPU Name: Intel Xeon Platinum 8176
 Max MHz.: 3800
 Nominal: 2100
Enabled: 224 cores, 8 chips, 2 threads/core
Orderable: 2,4,6,8 chips
Cache L1: 32 KB I + 32 KB D on chip per core
 L2: 1 MB I+D on chip per core
 L3: 38.5 MB I+D on chip per chip
 Other: None
Memory: 1536 GB (96 x 16 GB 2Rx4 PC4-2666V-R)
Storage: 768 GB tmpfs
Other: 1 x SAS HDD, 600 GB, 10.5K RPM, used for swap

Software

OS: SUSE Linux Enterprise Server 12 SP2
 4.4.21-69-default
Compiler: C/C++: Version 18.0.0.128 of Intel C/C++
 Compiler for Linux;
 Fortran: Version 18.0.0.128 of Intel Fortran
 Compiler for Linux
Parallel: No
Firmware: Fujitsu BIOS Version V1.0.0.0 R1.21.0 for D3858-A1x. Released Dec-2017
File System: tmpfs
System State: Run level 3 (multi-user)
Base Pointers: 64-bit
Peak Pointers: Not Applicable
Other: None

Standard Performance Evaluation Corporation (info@spec.org)

https://www.spec.org/

SPEC CPU2017 Floating Point Rate Result
Copyright 2017-2018 Standard Performance Evaluation Corporation

Fujitsu

PRIMEQUEST 3800B, Intel Xeon Platinum 8176, 2.10GHz

SPECrate2017_fp_base = 900

SPECrate2017_fp_peak = Not Run

CPU2017 License: 19
Test Sponsor: Fujitsu
Tested by: Fujitsu

Test Date: Nov-2017
Hardware Availability: Jul-2017
Software Availability: Sep-2017

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
503.bwaves_r	447	2274	1970	**2299**	**1950**	2309	1940							
507.cactuBSSN_r	447	617	918	**621**	**911**	624	908							
508.namd_r	447	531	800	525	809	**525**	**808**							
510.parest_r	447	2450	477	**2483**	**471**	2491	469							
511.povray_r	447	818	1280	819	1270	**818**	**1280**							
519.lbm_r	447	962	490	**1002**	**470**	1003	470							
521.wrf_r	447	1159	864	1175	852	**1175**	**852**							
526.blender_r	447	608	1120	**609**	**1120**	610	1120							
527.cam4_r	447	693	1130	696	1120	**694**	**1130**							
538.imagick_r	447	647	1720	**647**	**1720**	647	1720							
544.nab_r	447	486	1550	483	1560	**484**	**1560**							
549.fotonik3d_r	447	2857	610	**2891**	**603**	2914	598							
554.roms_r	447	1917	371	**1960**	**362**	1975	360							
SPECrate2017_fp_base =			**900**											
SPECrate2017_fp_peak =			**Not Run**											

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

Submit Notes

The numactl mechanism was used to bind copies to processors. The config file option 'submit' was used to generate numactl commands to bind each copy to a specific processor. For details, please see the config file.

Operating System Notes

```
Stack size set to unlimited using "ulimit -s unlimited"
Set Kernel Boot Parameter : nohz_full=1-447 isolcpus=1-447
Set tmpfs filesystem with:
mkdir /home/memory
mount -t tmpfs -o size=768g,rw tmpfs /home/memory
Process tuning setting:
echo 0 > /proc/sys/kernel/numa_balancing
echo never > /sys/kernel/mm/transparent_hugepage/enabled
cpu idle state set with:
cpupower idle-set -d 1
cpupower idle-set -d 2
set affinity of rcu threads to the cpu0:
for i in `pgrep rcu` ; do taskset -pc 0 $i ; done
```

Standard Performance Evaluation Corporation (info@spec.org)
https://www.spec.org/

SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Fujitsu

PRIMEQUEST 3800B, Intel Xeon Platinum 8176, 2.10GHz

SPECrate2017_fp_base =   900

SPECrate2017_fp_peak = Not Run

CPU2017 License: 19
Test Sponsor: Fujitsu
Tested by: Fujitsu

Test Date: Nov-2017
Hardware Availability: Jul-2017
Software Availability: Sep-2017

General Notes

```
Environment variables set by runcpu before the start of the run:
LD_LIBRARY_PATH = "/home/memory/speccpu/lib/ia32:/home/memory/speccpu/lib/intel64"
LD_LIBRARY_PATH = "$LD_LIBRARY_PATH:/home/memory/speccpu/je5.0.1-32:/home/memory/speccpu/je5.0.1-64"
 Binaries compiled on a system with 1x Intel Core i7-4790 CPU + 32GB RAM
 memory using Redhat Enterprise Linux 7.4
 Prior to runcpu invocation
 Filesystem page cache synced and cleared with:
 sync; echo 3>        /proc/sys/vm/drop_caches
 runcpu command invoked through numactl i.e.:
 numactl --interleave=all runcpu <etc>
```

Platform Notes

```
 BIOS configuration:
 DCU Streamer Prefetcher = Disabled
 Sub NUMA Clustering = Enabled
 Stale AtoS = Enabled
 LLC Dead Line Alloc = Disabled
 Fan Control = Full
 Sysinfo program /home/memory/speccpu/bin/sysinfo
 Rev: r5797 of 2017-06-14 96c45e4568ad54c135fd618bcc091c0f
 running on linux-k55j Fri Nov 24 21:33:47 2017

 SUT (System Under Test) info as seen by some common utilities.
 For more information on this section, see
    https://www.spec.org/cpu2017/Docs/config.html#sysinfo

 From /proc/cpuinfo
    model name : Intel(R) Xeon(R) Platinum 8176 CPU @ 2.10GHz
       8  "physical id"s (chips)
       448 "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 : 28
       siblings  : 56
       physical 0: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 14 16 17 18 19 20 21 22 24 25 26 27
       28 29 30
       physical 1: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 14 16 17 18 19 20 21 22 24 25 26 27
       28 29 30
       physical 2: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 14 16 17 18 19 20 21 22 24 25 26 27
       28 29 30
       physical 3: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 14 16 17 18 19 20 21 22 24 25 26 27
       28 29 30
       physical 4: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 14 16 17 18 19 20 21 22 24 25 26 27
       28 29 30
       physical 5: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 14 16 17 18 19 20 21 22 24 25 26 27
```

(Continued on next page)

Fujitsu

PRIMEQUEST 3800B, Intel Xeon Platinum 8176, 2.10GHz

SPECrate2017_fp_base = 900

SPECrate2017_fp_peak = Not Run

CPU2017 License: 19		**Test Date:**	Nov-2017
Test Sponsor:	Fujitsu	**Hardware Availability:**	Jul-2017
Tested by:	Fujitsu	**Software Availability:**	Sep-2017

Platform Notes (Continued)

```
      28 29 30
    physical 6: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 14 16 17 18 19 20 21 22 24 25 26 27
     28 29 30
    physical 7: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 14 16 17 18 19 20 21 22 24 25 26 27
     28 29 30

 From lscpu:
    Architecture:          x86_64
    CPU op-mode(s):        32-bit, 64-bit
    Byte Order:            Little Endian
    CPU(s):                448
    On-line CPU(s) list:   0-447
    Thread(s) per core:    2
    Core(s) per socket:    28
    Socket(s):             8
    NUMA node(s):          16
    Vendor ID:             GenuineIntel
    CPU family:            6
    Model:                 85
    Model name:            Intel(R) Xeon(R) Platinum 8176 CPU @ 2.10GHz
    Stepping:              4
    CPU MHz:               2800.000
    CPU max MHz:           3800.0000
    CPU min MHz:           1000.0000
    BogoMIPS:              4200.23
    Virtualization:        VT-x
    L1d cache:             32K
    L1i cache:             32K
    L2 cache:              1024K
    L3 cache:              39424K
    NUMA node0 CPU(s):     0-3,7-9,14-17,21-23,224-227,231-233,238-241,245-247
    NUMA node1 CPU(s):     4-6,10-13,18-20,24-27,228-230,234-237,242-244,248-251
    NUMA node2 CPU(s):     28-31,35-37,42-45,49-51,252-255,259-261,266-269,273-275
    NUMA node3 CPU(s):     32-34,38-41,46-48,52-55,256-258,262-265,270-272,276-279
    NUMA node4 CPU(s):     56-59,63-65,70-73,77-79,280-283,287-289,294-297,301-303
    NUMA node5 CPU(s):     60-62,66-69,74-76,80-83,284-286,290-293,298-300,304-307
    NUMA node6 CPU(s):     84-87,91-93,98-101,105-107,308-311,315-317,322-325,329-331
    NUMA node7 CPU(s):     88-90,94-97,102-104,108-111,312-314,318-321,326-328,332-335
    NUMA node8 CPU(s):
    112-115,119-121,126-129,133-135,336-339,343-345,350-353,357-359
    NUMA node9 CPU(s):
    116-118,122-125,130-132,136-139,340-342,346-349,354-356,360-363
    NUMA node10 CPU(s):
    140-143,147-149,154-157,161-163,364-367,371-373,378-381,385-387
    NUMA node11 CPU(s):
    144-146,150-153,158-160,164-167,368-370,374-377,382-384,388-391
    NUMA node12 CPU(s):
```

(Continued on next page)

Fujitsu

PRIMEQUEST 3800B, Intel Xeon Platinum 8176, 2.10GHz

SPECrate2017_fp_base = 900

SPECrate2017_fp_peak = Not Run

CPU2017 License: 19
Test Sponsor: Fujitsu
Tested by: Fujitsu

Test Date: Nov-2017
Hardware Availability: Jul-2017
Software Availability: Sep-2017

Platform Notes (Continued)

```
     168-171,175-177,182-185,189-191,392-395,399-401,406-409,413-415
     NUMA node13 CPU(s):
     172-174,178-181,186-188,192-195,396-398,402-405,410-412,416-419
     NUMA node14 CPU(s):
     196-199,203-205,210-213,217-219,420-423,427-429,434-437,441-443
     NUMA node15 CPU(s):
     200-202,206-209,214-216,220-223,424-426,430-433,438-440,444-447
     Flags:                  fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov
     pat pse36 clflush dts acpi mmx fxsr sse sse2 ss ht tm pbe syscall nx pdpe1gb rdtscp
     lm constant_tsc art arch_perfmon pebs bts rep_good nopl xtopology nonstop_tsc
     aperfmperf eagerfpu pni pclmulqdq dtes64 monitor ds_cpl vmx smx est tm2 ssse3 sdbg
     fma cx16 xtpr pdcm pcid dca sse4_1 sse4_2 x2apic movbe popcnt tsc_deadline_timer aes
     xsave avx f16c rdrand lahf_lm abm 3dnowprefetch ida arat epb pln pts dtherm hwp
     hwp_act_window hwp_epp hwp_pkg_req intel_pt tpr_shadow vnmi flexpriority ept vpid
     fsgsbase tsc_adjust bmi1 hle avx2 smep bmi2 erms invpcid rtm cqm mpx avx512f
     avx512dq rdseed adx smap clflushopt clwb avx512cd avx512bw avx512vl xsaveopt xsavec
     xgetbv1 cqm_llc cqm_occup_llc

 /proc/cpuinfo cache data
    cache size : 39424 KB

 From numactl --hardware  WARNING: a numactl 'node' might or might not correspond to a
 physical chip.
   available: 16 nodes (0-15)
   node 0 cpus: 0 1 2 3 7 8 9 14 15 16 17 21 22 23 224 225 226 227 231 232 233 238 239 240
   241 245 246 247
   node 0 size: 95377 MB
   node 0 free: 85735 MB
   node 1 cpus: 4 5 6 10 11 12 13 18 19 20 24 25 26 27 228 229 230 234 235 236 237 242 243
   244 248 249 250 251
   node 1 size: 96763 MB
   node 1 free: 96528 MB
   node 2 cpus: 28 29 30 31 35 36 37 42 43 44 45 49 50 51 252 253 254 255 259 260 261 266
   267 268 269 273 274 275
   node 2 size: 96763 MB
   node 2 free: 96527 MB
   node 3 cpus: 32 33 34 38 39 40 41 46 47 48 52 53 54 55 256 257 258 262 263 264 265 270
   271 272 276 277 278 279
   node 3 size: 96763 MB
   node 3 free: 96528 MB
   node 4 cpus: 56 57 58 59 63 64 65 70 71 72 73 77 78 79 280 281 282 283 287 288 289 294
   295 296 297 301 302 303
   node 4 size: 96763 MB
   node 4 free: 96527 MB
   node 5 cpus: 60 61 62 66 67 68 69 74 75 76 80 81 82 83 284 285 286 290 291 292 293 298
   299 300 304 305 306 307
   node 5 size: 96763 MB
```

(Continued on next page)

Fujitsu

PRIMEQUEST 3800B, Intel Xeon Platinum 8176, 2.10GHz

SPECrate2017_fp_base =   900

SPECrate2017_fp_peak = Not Run

CPU2017 License: 19
Test Sponsor: Fujitsu
Tested by: Fujitsu

Test Date: Nov-2017
Hardware Availability: Jul-2017
Software Availability: Sep-2017

Platform Notes (Continued)

```
node 5 free: 96528 MB
node 6 cpus: 84 85 86 87 91 92 93 98 99 100 101 105 106 107 308 309 310 311 315 316 317
322 323 324 325 329 330 331
node 6 size: 96763 MB
node 6 free: 96527 MB
node 7 cpus: 88 89 90 94 95 96 97 102 103 104 108 109 110 111 312 313 314 318 319 320
321 326 327 328 332 333 334 335
node 7 size: 96763 MB
node 7 free: 96527 MB
node 8 cpus: 112 113 114 115 119 120 121 126 127 128 129 133 134 135 336 337 338 339
343 344 345 350 351 352 353 357 358 359
node 8 size: 96763 MB
node 8 free: 96528 MB
node 9 cpus: 116 117 118 122 123 124 125 130 131 132 136 137 138 139 340 341 342 346
347 348 349 354 355 356 360 361 362 363
node 9 size: 96763 MB
node 9 free: 96528 MB
node 10 cpus: 140 141 142 143 147 148 149 154 155 156 157 161 162 163 364 365 366 367
371 372 373 378 379 380 381 385 386 387
node 10 size: 96763 MB
node 10 free: 96527 MB
node 11 cpus: 144 145 146 150 151 152 153 158 159 160 164 165 166 167 368 369 370 374
375 376 377 382 383 384 388 389 390 391
node 11 size: 96763 MB
node 11 free: 96527 MB
node 12 cpus: 168 169 170 171 175 176 177 182 183 184 185 189 190 191 392 393 394 395
399 400 401 406 407 408 409 413 414 415
node 12 size: 96763 MB
node 12 free: 96527 MB
node 13 cpus: 172 173 174 178 179 180 181 186 187 188 192 193 194 195 396 397 398 402
403 404 405 410 411 412 416 417 418 419
node 13 size: 96763 MB
node 13 free: 96528 MB
node 14 cpus: 196 197 198 199 203 204 205 210 211 212 213 217 218 219 420 421 422 423
427 428 429 434 435 436 437 441 442 443
node 14 size: 96763 MB
node 14 free: 96527 MB
node 15 cpus: 200 201 202 206 207 208 209 214 215 216 220 221 222 223 424 425 426 430
431 432 433 438 439 440 444 445 446 447
node 15 size: 96613 MB
node 15 free: 96378 MB
node distances:
node   0    1    2    3    4    5    6    7    8    9   10   11   12   13   14   15
  0:  10   11   35   35   35   35   40   40   40   40   40   40   35   35   40   40
  1:  11   10   35   35   35   35   40   40   40   40   40   40   35   35   40   40
  2:  35   35   10   11   40   40   35   35   40   40   35   35   40   40   40   40
  3:  35   35   11   10   40   40   35   35   40   40   35   35   40   40   40   40
```

(Continued on next page)

Fujitsu

PRIMEQUEST 3800B, Intel Xeon Platinum 8176, 2.10GHz

SPECrate2017_fp_base = 900

SPECrate2017_fp_peak = Not Run

CPU2017 License: 19

Test Sponsor: Fujitsu

Tested by: Fujitsu

Test Date: Nov-2017

Hardware Availability: Jul-2017

Software Availability: Sep-2017

Platform Notes (Continued)

```
     4:   35   35   40   40   10   11   35   35   35   35   40   40   40   40   40   40
     5:   35   35   40   40   11   10   35   35   35   35   40   40   40   40   40   40
     6:   40   40   35   35   35   35   10   11   40   40   40   40   40   40   35   35
     7:   40   40   35   35   35   35   11   10   40   40   40   40   40   40   35   35
     8:   40   40   40   40   35   35   40   40   10   11   35   35   35   35   40   40
     9:   40   40   40   40   35   35   40   40   11   10   35   35   35   35   40   40
    10:   40   40   35   35   40   40   40   40   35   35   10   11   40   40   35   35
    11:   40   40   35   35   40   40   40   40   35   35   11   10   40   40   35   35
    12:   35   35   40   40   40   40   40   40   35   35   40   40   10   11   35   35
    13:   35   35   40   40   40   40   40   40   35   35   40   40   11   10   35   35
    14:   40   40   40   40   40   40   35   35   40   40   35   35   35   35   10   11
    15:   40   40   40   40   40   40   35   35   40   40   35   35   35   35   11   10

  From /proc/meminfo
     MemTotal:       1583801256 kB
     HugePages_Total:        0
     Hugepagesize:        2048 kB

  From /etc/*release* /etc/*version*
     SuSE-release:
        SUSE Linux Enterprise Server 12 (x86_64)
        VERSION = 12
        PATCHLEVEL = 2
        # This file is deprecated and will be removed in a future service pack or release.
        # Please check /etc/os-release for details about this release.
     os-release:
        NAME="SLES"
        VERSION="12-SP2"
        VERSION_ID="12.2"
        PRETTY_NAME="SUSE Linux Enterprise Server 12 SP2"
        ID="sles"
        ANSI_COLOR="0;32"
        CPE_NAME="cpe:/o:suse:sles:12:sp2"

  uname -a:
     Linux linux-k55j 4.4.21-69-default #1 SMP Tue Oct 25 10:58:20 UTC 2016 (9464f67)
     x86_64 x86_64 x86_64 GNU/Linux

  run-level 3 Nov 24 21:25

  SPEC is set to: /home/memory/speccpu
     Filesystem      Type   Size  Used Avail Use% Mounted on
     tmpfs           tmpfs  768G  8.8G  760G   2% /home/memory

  Additional information from dmidecode follows.  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
```

SPEC CPU2017 Floating Point Rate Result

Fujitsu

PRIMEQUEST 3800B, Intel Xeon Platinum 8176, 2.10GHz

SPECrate2017_fp_base =   900

SPECrate2017_fp_peak = Not Run

CPU2017 License: 19
Test Sponsor: Fujitsu
Tested by: Fujitsu

Test Date: Nov-2017
Hardware Availability: Jul-2017
Software Availability: Sep-2017

Platform Notes (Continued)

```
 frequent changes to hardware, firmware, and the "DMTF SMBIOS" standard.
   BIOS FUJITSU V1.0.0.0 R1.21.0 for D3858-A1x             09/15/2017
   Memory:
     46x Hynix HMA42GR7BJR4N-VK 16 GB 2 rank 2666
     50x Samsung M393A2G40EB2-CTD 16 GB 2 rank 2666

 (End of data from sysinfo program)
```

Compiler Version Notes

```
==============================================================================
 CC  519.lbm_r(base) 538.imagick_r(base) 544.nab_r(base)
------------------------------------------------------------------------------
icc (ICC) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation.  All rights reserved.
------------------------------------------------------------------------------


==============================================================================
 CXXC 508.namd_r(base) 510.parest_r(base)
------------------------------------------------------------------------------
icpc (ICC) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation.  All rights reserved.
------------------------------------------------------------------------------


==============================================================================
 CC  511.povray_r(base) 526.blender_r(base)
------------------------------------------------------------------------------
icpc (ICC) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation.  All rights reserved.
icc (ICC) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation.  All rights reserved.
------------------------------------------------------------------------------


==============================================================================
 FC  507.cactuBSSN_r(base)
------------------------------------------------------------------------------
icpc (ICC) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation.  All rights reserved.
icc (ICC) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation.  All rights reserved.
ifort (IFORT) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation.  All rights reserved.
------------------------------------------------------------------------------


==============================================================================
 FC  503.bwaves_r(base) 549.fotonik3d_r(base) 554.roms_r(base)
```

(Continued on next page)

SPEC CPU2017 Floating Point Rate Result

Fujitsu

PRIMEQUEST 3800B, Intel Xeon Platinum 8176, 2.10GHz

SPECrate2017_fp_base = 900

SPECrate2017_fp_peak = Not Run

CPU2017 License: 19
Test Sponsor: Fujitsu
Tested by: Fujitsu

Test Date: Nov-2017
Hardware Availability: Jul-2017
Software Availability: Sep-2017

Compiler Version Notes (Continued)

```
--------------------------------------------------------------------------
ifort (IFORT) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation.  All rights reserved.
--------------------------------------------------------------------------


==========================================================================
 CC  521.wrf_r(base) 527.cam4_r(base)
--------------------------------------------------------------------------
ifort (IFORT) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation.  All rights reserved.
icc (ICC) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation.  All rights reserved.
--------------------------------------------------------------------------
```

Base Compiler Invocation

C benchmarks:
icc

C++ benchmarks:
icpc

Fortran benchmarks:
ifort

Benchmarks using both Fortran and C:
ifort icc

Benchmarks using both C and C++:
icpc icc

Benchmarks using Fortran, C, and C++:
icpc icc ifort

Base Portability Flags

503.bwaves_r: -DSPEC_LP64
507.cactuBSSN_r: -DSPEC_LP64
508.namd_r: -DSPEC_LP64
510.parest_r: -DSPEC_LP64
511.povray_r: -DSPEC_LP64
519.lbm_r: -DSPEC_LP64
521.wrf_r: -DSPEC_LP64 -DSPEC_CASE_FLAG -convert big_endian

(Continued on next page)

Standard Performance Evaluation Corporation (info@spec.org) https://www.spec.org/

SPEC CPU2017 Floating Point Rate Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Fujitsu

PRIMEQUEST 3800B, Intel Xeon Platinum 8176, 2.10GHz

SPECrate2017_fp_base = 900

SPECrate2017_fp_peak = Not Run

CPU2017 License: 19

Test Sponsor: Fujitsu

Tested by: Fujitsu

Test Date: Nov-2017

Hardware Availability: Jul-2017

Software Availability: Sep-2017

Base Portability Flags (Continued)

526.blender_r: `-DSPEC_LP64 -DSPEC_LINUX -funsigned-char`
527.cam4_r: `-DSPEC_LP64 -DSPEC_CASE_FLAG`
538.imagick_r: `-DSPEC_LP64`
544.nab_r: `-DSPEC_LP64`
549.fotonik3d_r: `-DSPEC_LP64`
554.roms_r: `-DSPEC_LP64`

Base Optimization Flags

C benchmarks:
`-xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only -qopt-mem-layout-trans=3`

C++ benchmarks:
`-xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only -qopt-mem-layout-trans=3`

Fortran benchmarks:
`-xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only -qopt-mem-layout-trans=3 -nostandard-realloc-lhs -align array32byte`

Benchmarks using both Fortran and C:
`-xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only -qopt-mem-layout-trans=3 -nostandard-realloc-lhs -align array32byte`

Benchmarks using both C and C++:
`-xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only -qopt-mem-layout-trans=3`

Benchmarks using Fortran, C, and C++:
`-xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only -qopt-mem-layout-trans=3 -nostandard-realloc-lhs -align array32byte`

Base Other Flags

C benchmarks:
`-m64 -std=c11`

C++ benchmarks:
`-m64`

(Continued on next page)

Fujitsu

PRIMEQUEST 3800B, Intel Xeon Platinum 8176, 2.10GHz

SPECrate2017_fp_base =   900

SPECrate2017_fp_peak =   Not Run

CPU2017 License: 19
Test Sponsor: Fujitsu
Tested by: Fujitsu

Test Date: Nov-2017
Hardware Availability: Jul-2017
Software Availability: Sep-2017

Base Other Flags (Continued)

Fortran benchmarks:
-m64

Benchmarks using both Fortran and C:
-m64 -std=c11

Benchmarks using both C and C++:
-m64 -std=c11

Benchmarks using Fortran, C, and C++:
-m64 -std=c11

The flags files that were used to format this result can be browsed at
http://www.spec.org/cpu2017/flags/Fujitsu-Platform-Settings-V1.2-SKL-RevC.html
http://www.spec.org/cpu2017/flags/Intel-ic18.0-official-linux64.2017-10-19.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2017/flags/Fujitsu-Platform-Settings-V1.2-SKL-RevC.xml
http://www.spec.org/cpu2017/flags/Intel-ic18.0-official-linux64.2017-10-19.xml

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

Tested with SPEC CPU2017 v1.0.2 on 2017-11-24 07:33:46-0500.
Report generated on 2018-10-31 13:20:50 by CPU2017 PDF formatter v6067.
Originally published on 2017-12-26.