SPEC CPU®2017 Integer Rate Result

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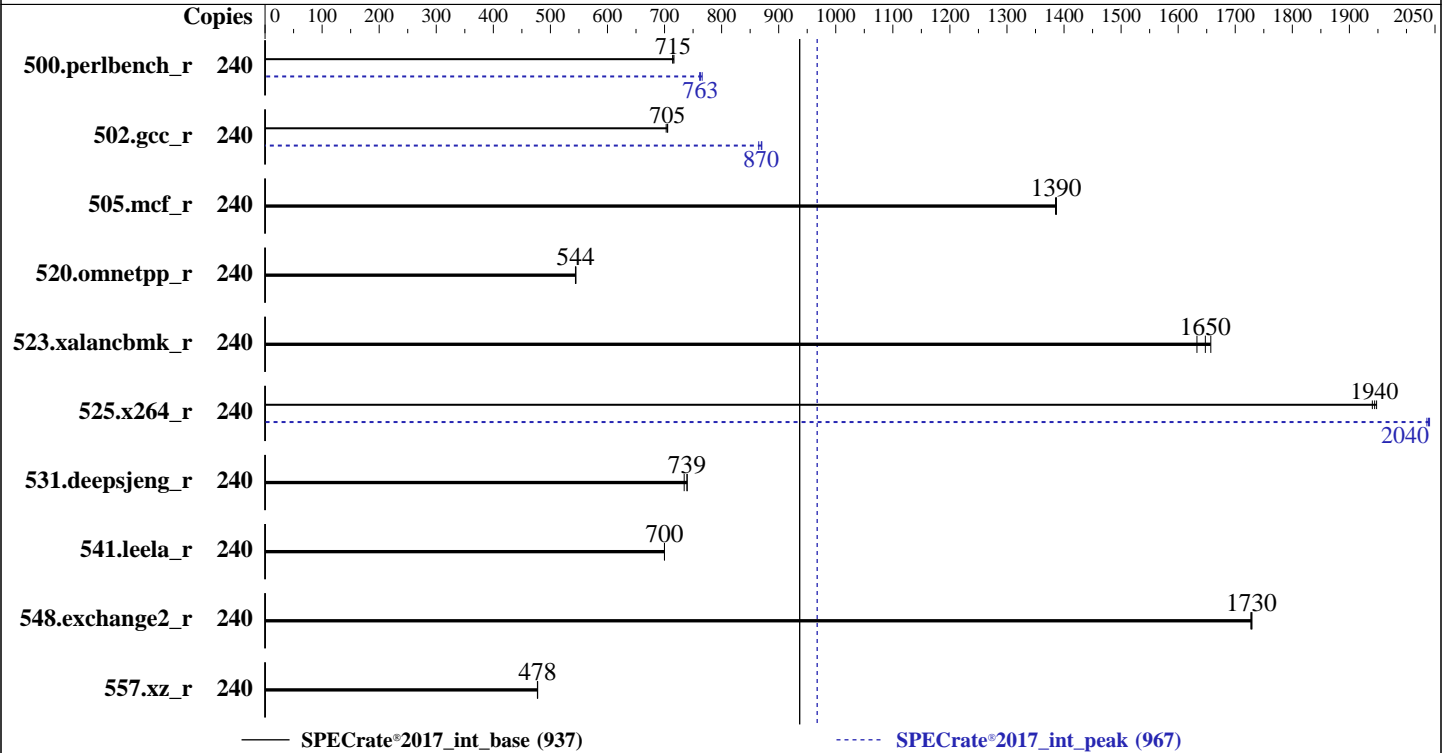## Nettrix

R620 G50 (Intel Xeon Platinum 8490H, 1.90 GHz)

$SPECrate^®2017\_int\_base = 937$

$SPECrate^®2017\_int\_peak = 967$

CPU2017 License: 6138
Test Sponsor: Nettrix
Tested by: Nettrix

Test Date: Dec-2022
Hardware Availability: Jan-2023
Software Availability: Nov-2022

Benchmark	Copies	Base	Peak
500.perlbench_r	240	715	763
502.gcc_r	240	705	870
505.mcf_r	240	1390	
520.omnetpp_r	240	544	
523.xalancbmk_r	240	1650	
525.x264_r	240	1940	2040
531.deepsjeng_r	240	739	
541.leela_r	240	700	
548.exchange2_r	240	1730	
557.xz_r	240	478	

SPECrate®2017_int_base (937)   SPECrate®2017_int_peak (967)

Hardware

CPU Name: Intel Xeon Platinum 8490H
 Max MHz: 3500
 Nominal: 1900
Enabled: 120 cores, 2 chips, 2 threads/core
Orderable: 1,2 chips
Cache L1: 32 KB I + 48 KB D on chip per core
 L2: 2 MB I+D on chip per core
 L3: 112.5 MB I+D on chip per chip
 Other: None
Memory: 1 TB (16 x 64 GB 2Rx4 PC5-4800B-R)
Storage: 1 x 1.92 TB NVME SSD
Other: None

Software

OS: SUSE Linux Enterprise Server 15 SP3
5.3.18-150300.59.101-default
Compiler: C/C++: Version 2022.1 of Intel oneAPI DPC++/C++ Compiler Build 20220316 for Linux;
Fortran: Version 2022.1 of Intel Fortran Compiler Build 20220316 for Linux;
Parallel: No
Firmware: Nettrix BIOS Version NNH1041018-U00-1 released Nov-2022
File System: xfs
System State: Run level 3 (multi-user)
Base Pointers: 64-bit
Peak Pointers: 32/64-bit
Other: jemalloc memory allocator V5.0.1
Power Management: BIOS and OS set to prefer performance at the cost of additional power usage

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Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
500.perlbench_r	240	**535**	**715**	535	714	533	716	240	499	766	**501**	**763**	502	762
502.gcc_r	240	482	706	484	703	**482**	**705**	240	390	870	393	865	**391**	**870**
505.mcf_r	240	280	1390	280	1390	**280**	**1390**	240	280	1390	280	1390	**280**	**1390**
520.omnetpp_r	240	**578**	**544**	578	544	579	544	240	**578**	**544**	578	544	579	544
523.xalancbmk_r	240	153	1660	**154**	**1650**	155	1630	240	153	1660	**154**	**1650**	155	1630
525.x264_r	240	**216**	**1940**	216	1950	217	1940	240	206	2040	206	2040	**206**	**2040**
531.deepsjeng_r	240	**372**	**739**	375	734	372	740	240	**372**	**739**	375	734	372	740
541.leela_r	240	568	700	568	700	**568**	**700**	240	568	700	568	700	**568**	**700**
548.exchange2_r	240	364	1730	364	1730	**364**	**1730**	240	364	1730	364	1730	**364**	**1730**
557.xz_r	240	543	478	**543**	**478**	543	477	240	543	478	**543**	**478**	543	477
SPECrate®2017_int_base =		**937**												
SPECrate®2017_int_peak =		**967**												

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

Compiler Notes

```
SPEC has ruled that the compiler used for this result was performing a compilation
that specifically improves the performance of the 523.xalancbmk_r / 623.xalancbmk_s
benchmarks using a priori knowledge of the SPEC code and dataset to perform a
transformation that has narrow applicability.

In order to encourage optimizations that have wide applicability (see rule 1.4
https://www.spec.org/cpu2017/Docs/runrules.html#rule_1.4), SPEC will no longer
publish results using this optimization.

This result is left in the SPEC results database for historical reference.
```

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"
```

Environment Variables Notes

```
Environment variables set by runcpu before the start of the run:
LD_LIBRARY_PATH = "/home/lijq/lib/intel64:/home/lijq/lib/ia32:/home/lijq/je5.0.1-32"
MALLOC_CONF = "retain:true"
```

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General Notes

```
Binaries compiled on a system with 2x Intel Xeon Platinum 8280M CPU + 384GB RAM
memory using Red Hat Enterprise Linux 8.4
NA : The test sponsor attests, as of date of publication, that CVE-2017-5754 (Meltdown)
  is mitigated in the system as tested and documented.
Yes: The test sponsor attests, as of date of publication, that CVE-2017-5753 (Spectre variant 1)
  is mitigated in the system as tested and documented.
Yes: The test sponsor attests, as of date of publication, that CVE-2017-5715 (Spectre variant 2)
  is mitigated in the system as tested and documented.
Transparent Huge Pages enabled by default
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>
jemalloc, a general purpose malloc implementation
built with the RedHat Enterprise 7.5, and the system compiler gcc 4.8.5
sources available from jemalloc.net or https://github.com/jemalloc/jemalloc/releases
```

Platform Notes

```
BIOS Configuration:
  Enable LP [Global] set to ALL LPs
  LLC Prefetch set to Disabled
  SNC (Sub NUMA) set to Enable SNC4 (4-clusters)
  Patrol Scrub set to Disabled
  LLC dead line alloc set to Disabled
  XPT Prefetch set to Auto
  KTI Prefetch set to Auto
  DCU Streamer Prefetcher set to Disabled
  Hardware P-States set to Native Mode

Sysinfo program /home/lijq/bin/sysinfo
Rev: r6622 of 2021-04-07 982a61ec0915b55891ef0e16acafc64d
running on localhost Mon Dec 19 04:45:01 2022

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 8490H
     2  "physical id"s (chips)
     240 "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 : 60
    siblings  : 120
    physical 0: cores 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
    25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52
    53 54 55 56 57 58 59
    physical 1: cores 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
    25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52
    53 54 55 56 57 58 59

From lscpu from util-linux 2.36.2:
    Architecture:            x86_64
    CPU op-mode(s):          32-bit, 64-bit
    Byte Order:              Little Endian
    Address sizes:           52 bits physical, 57 bits virtual
```

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Platform Notes (Continued)

```
CPU(s):                     240
On-line CPU(s) list:        0-239
Thread(s) per core:         2
Core(s) per socket:         60
Socket(s):                  2
NUMA node(s):               8
Vendor ID:                  GenuineIntel
CPU family:                 6
Model:                      143
Model name:                 Intel(R) Xeon(R) Platinum 8490H
Stepping:                   8
CPU MHz:                    2900.000
CPU max MHz:                3500.0000
CPU min MHz:                800.0000
BogoMIPS:                   3800.00
Virtualization:             VT-x
L1d cache:                  5.6 MiB
L1i cache:                  3.8 MiB
L2 cache:                   240 MiB
L3 cache:                   225 MiB
NUMA node0 CPU(s):          0-14,120-134
NUMA node1 CPU(s):          15-29,135-149
NUMA node2 CPU(s):          30-44,150-164
NUMA node3 CPU(s):          45-59,165-179
NUMA node4 CPU(s):          60-74,180-194
NUMA node5 CPU(s):          75-89,195-209
NUMA node6 CPU(s):          90-104,210-224
NUMA node7 CPU(s):          105-119,225-239
Vulnerability Itlb multihit:    Not affected
Vulnerability L1tf:             Not affected
Vulnerability Mds:              Not affected
Vulnerability Meltdown:         Not affected
Vulnerability Mmio stale data:  Not affected
Vulnerability Retbleed:         Not affected
Vulnerability Spec store bypass: Mitigation; Speculative Store Bypass disabled via
prctl and seccomp
Vulnerability Spectre v1:        Mitigation; usercopy/swapgs barriers and __user
pointer sanitization
Vulnerability Spectre v2:        Mitigation; Enhanced IBRS, IBPB conditional, RSB
filling, PBRSB-eIBRS SW sequence
Vulnerability Srbds:            Not affected
Vulnerability Tsx async abort:  Not affected
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 cpuid aperfmperf tsc_known_freq pni pclmulqdq dtes64 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 cpuid_fault
epb cat_l3 cat_l2 cdp_l3 invpcid_single cdp_l2 ssbd mba ibrs ibpb stibp
ibrs_enhanced tpr_shadow vnmi flexpriority ept vpid ept_ad fsgsbase tsc_adjust bmi1
hle avx2 smep bmi2 erms invpcid rtm cqm rdt_a avx512f avx512dq rdseed adx smap
avx512ifma clflushopt clwb intel_pt avx512cd sha_ni avx512bw avx512vl xsaveopt
xsavec xgetbv1 xsaves cqm_llc cqm_occup_llc cqm_mbm_total cqm_mbm_local
split_lock_detect avx512_bf16 wbnoinvd dtherm ida arat pln pts hwp hwp_act_window
hwp_epp hwp_pkg_req avx512vbmi umip pku ospke waitpkg avx512_vbmi2 gfni vaes
vpclmulqdq avx512_vnni avx512_bitalg tme avx512_vpopcntdq la57 rdpid cldemote
movdiri movdir64b enqcmd fsrm md_clear serialize tsxldtrk pconfig avx512_fp16
flush_l1d arch_capabilities

 From lscpu --cache:
```

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Platform Notes (Continued)

```
      NAME ONE-SIZE ALL-SIZE WAYS TYPE        LEVEL    SETS PHY-LINE COHERENCY-SIZE
      L1d      48K     5.6M   12 Data           1      64       1              64
      L1i      32K     3.8M    8 Instruction    1      64       1              64
      L2        2M     240M   16 Unified        2    2048       1              64
      L3    112.5M     225M   15 Unified        3  122880       1              64

  /proc/cpuinfo cache data
     cache size : 115200 KB

  From numactl --hardware
  WARNING: a numactl 'node' might or might not correspond to a physical chip.
    available: 8 nodes (0-7)
    node 0 cpus: 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 120 121 122 123 124 125 126 127 128 129
    130 131 132 133 134
    node 0 size: 128537 MB
    node 0 free: 128174 MB
    node 1 cpus: 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 135 136 137 138 139 140 141
    142 143 144 145 146 147 148 149
    node 1 size: 129016 MB
    node 1 free: 128743 MB
    node 2 cpus: 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 150 151 152 153 154 155 156
    157 158 159 160 161 162 163 164
    node 2 size: 129016 MB
    node 2 free: 128676 MB
    node 3 cpus: 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 165 166 167 168 169 170 171
    172 173 174 175 176 177 178 179
    node 3 size: 129016 MB
    node 3 free: 128723 MB
    node 4 cpus: 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 180 181 182 183 184 185 186
    187 188 189 190 191 192 193 194
    node 4 size: 129016 MB
    node 4 free: 128391 MB
    node 5 cpus: 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 195 196 197 198 199 200 201
    202 203 204 205 206 207 208 209
    node 5 size: 129016 MB
    node 5 free: 128744 MB
    node 6 cpus: 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 210 211 212 213 214 215
    216 217 218 219 220 221 222 223 224
    node 6 size: 129016 MB
    node 6 free: 128617 MB
    node 7 cpus: 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 225 226 227
    228 229 230 231 232 233 234 235 236 237 238 239
    node 7 size: 128716 MB
    node 7 free: 128410 MB
    node distances:
    node   0   1   2   3   4   5   6   7
      0:  10  12  12  12  21  21  21  21
      1:  12  10  12  12  21  21  21  21
      2:  12  12  10  12  21  21  21  21
      3:  12  12  12  10  21  21  21  21
      4:  21  21  21  21  10  12  12  12
      5:  21  21  21  21  12  10  12  12
      6:  21  21  21  21  12  12  10  12
      7:  21  21  21  21  12  12  12  10

  From /proc/meminfo
     MemTotal:     1056108860 kB
     HugePages_Total:        0
     Hugepagesize:        2048 kB
```

(Continued on next page)

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Platform Notes (Continued)

```
/sys/devices/system/cpu/cpu*/cpufreq/scaling_governor has
   performance

From /etc/*release* /etc/*version*
   os-release:
      NAME="SLES"
      VERSION="15-SP3"
      VERSION_ID="15.3"
      PRETTY_NAME="SUSE Linux Enterprise Server 15 SP3"
      ID="sles"
      ID_LIKE="suse"
      ANSI_COLOR="0;32"
      CPE_NAME="cpe:/o:suse:sles:15:sp3"

uname -a:
   Linux localhost 5.3.18-150300.59.101-default #1 SMP Tue Nov 1 11:32:03 UTC 2022
   (b2a976e) x86_64 x86_64 x86_64 GNU/Linux

Kernel self-reported vulnerability status:

CVE-2018-12207 (iTLB Multihit):                  Not affected
CVE-2018-3620 (L1 Terminal Fault):               Not affected
Microarchitectural Data Sampling:                Not affected
CVE-2017-5754 (Meltdown):                         Not affected
mmio_stale_data:                                  Not affected
retbleed:                                         Not affected
CVE-2018-3639 (Speculative Store Bypass):         Mitigation: Speculative Store
                                                  Bypass disabled via prctl and
                                                  seccomp
CVE-2017-5753 (Spectre variant 1):                Mitigation: usercopy/swapgs
                                                  barriers and __user pointer
                                                  sanitization
CVE-2017-5715 (Spectre variant 2):                Mitigation: Enhanced IBRS, IBPB:
                                                  conditional, RSB filling,
                                                  PBRSB-eIBRS: SW sequence
CVE-2020-0543 (Special Register Buffer Data Sampling): Not affected
CVE-2019-11135 (TSX Asynchronous Abort):          Not affected

run-level 3 Dec 19 04:37

SPEC is set to: /home/lijq
   Filesystem      Type  Size  Used Avail Use% Mounted on
   /dev/nvme0n1p8 xfs    581G  157G  424G  28% /home

From /sys/devices/virtual/dmi/id
   Vendor:         Nettrix
   Product:        R620 G50
   Product Family: Rack
   Serial:         6101810603447810

Additional information from dmidecode 3.2 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
frequent changes to hardware, firmware, and the "DMTF SMBIOS" standard.
  Memory:
    16x Samsung M321R8GA0BB0-CQKEG 64 GB 2 rank 4800

BIOS:
   BIOS Vendor:      American Megatrends International, LLC.
   BIOS Version:     NNH1041018-U00-1
```

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Platform Notes (Continued)

```
     BIOS Date:        11/01/2022
     BIOS Revision:    5.29

  (End of data from sysinfo program)
```

Compiler Version Notes

```
==============================================================================================
C         | 502.gcc_r(peak)
----------------------------------------------------------------------------------------------
Intel(R) oneAPI DPC++/C++ Compiler for applications running on IA-32, Version 2022.1.0 Build 20220316
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.
----------------------------------------------------------------------------------------------


==============================================================================================
C         | 500.perlbench_r(base, peak) 502.gcc_r(base) 505.mcf_r(base, peak) 525.x264_r(base, peak)
          | 557.xz_r(base, peak)
----------------------------------------------------------------------------------------------
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2022.1.0 Build 20220316
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.
----------------------------------------------------------------------------------------------


==============================================================================================
C         | 502.gcc_r(peak)
----------------------------------------------------------------------------------------------
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----------------------------------------------------------------------------------------------


==============================================================================================
C         | 500.perlbench_r(base, peak) 502.gcc_r(base) 505.mcf_r(base, peak) 525.x264_r(base, peak)
          | 557.xz_r(base, peak)
----------------------------------------------------------------------------------------------
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2022.1.0 Build 20220316
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.
----------------------------------------------------------------------------------------------


==============================================================================================
C++       | 520.omnetpp_r(base, peak) 523.xalancbmk_r(base, peak) 531.deepsjeng_r(base, peak)
          | 541.leela_r(base, peak)
----------------------------------------------------------------------------------------------
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2022.1.0 Build 20220316
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.
----------------------------------------------------------------------------------------------


==============================================================================================
Fortran | 548.exchange2_r(base, peak)
----------------------------------------------------------------------------------------------
Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version 2022.1.0 Build 20220316
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.
----------------------------------------------------------------------------------------------
```

Base Compiler Invocation

C benchmarks:

icx

(Continued on next page)

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

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Base Compiler Invocation (Continued)

C++ benchmarks:
`icpx`

Fortran benchmarks:
`ifx`

Base Portability Flags

500.perlbench_r: `-DSPEC_LP64 -DSPEC_LINUX_X64`
502.gcc_r: `-DSPEC_LP64`
505.mcf_r: `-DSPEC_LP64`
520.omnetpp_r: `-DSPEC_LP64`
523.xalancbmk_r: `-DSPEC_LP64 -DSPEC_LINUX`
525.x264_r: `-DSPEC_LP64`
531.deepsjeng_r: `-DSPEC_LP64`
541.leela_r: `-DSPEC_LP64`
548.exchange2_r: `-DSPEC_LP64`
557.xz_r: `-DSPEC_LP64`

Base Optimization Flags

C benchmarks:
```
-w -std=c11 -m64 -Wl,-z,muldefs -xCORE-AVX512 -O3 -ffast-math
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-L/usr/local/intel/compiler/2022.1.0/linux/compiler/lib/intel64_lin
-lqkmalloc
```

C++ benchmarks:
```
-w -m64 -Wl,-z,muldefs -xCORE-AVX512 -O3 -ffast-math -flto
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-L/usr/local/intel/compiler/2022.1.0/linux/compiler/lib/intel64_lin
-lqkmalloc
```

Fortran benchmarks:
```
-w -m64 -Wl,-z,muldefs -xCORE-AVX512 -O3 -ffast-math -flto
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-nostandard-realloc-lhs -align array32byte -auto
-L/usr/local/intel/compiler/2022.1.0/linux/compiler/lib/intel64_lin
-lqkmalloc
```

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Peak Compiler Invocation

C benchmarks:
`icx`

C++ benchmarks:
`icpx`

Fortran benchmarks:
`ifx`

Peak Portability Flags

500.perlbench_r: `-DSPEC_LP64 -DSPEC_LINUX_X64`
502.gcc_r: `-D_FILE_OFFSET_BITS=64`
505.mcf_r: `-DSPEC_LP64`
520.omnetpp_r: `-DSPEC_LP64`
523.xalancbmk_r: `-DSPEC_LP64 -DSPEC_LINUX`
525.x264_r: `-DSPEC_LP64`
531.deepsjeng_r: `-DSPEC_LP64`
541.leela_r: `-DSPEC_LP64`
548.exchange2_r: `-DSPEC_LP64`
557.xz_r: `-DSPEC_LP64`

Peak Optimization Flags

C benchmarks:

500.perlbench_r: `-w -std=c11 -m64 -Wl,-z,muldefs`
`-fprofile-generate`(pass 1)
`-fprofile-use=default.profdata`(pass 2) `-xCORE-AVX512`
`-Ofast -ffast-math -flto -mfpmath=sse -funroll-loops`
`-qopt-mem-layout-trans=4 -fno-strict-overflow`
`-L/usr/local/intel/compiler/2022.1.0/linux/compiler/lib/intel64_lin`
`-lqkmalloc`

502.gcc_r: `-m32`
`-L/usr/local/intel/compiler/2022.1.0/linux/compiler/lib/ia32_lin`
`-std=gnu89 -Wl,-z,muldefs -fprofile-generate`(pass 1)
`-fprofile-use=default.profdata`(pass 2) `-xCORE-AVX512`
`-Ofast -ffast-math -flto -mfpmath=sse -funroll-loops`
`-qopt-mem-layout-trans=4 -L/usr/local/jemalloc32-5.0.1/lib`
`-ljemalloc`

(Continued on next page)

Nettrix

R620 G50 (Intel Xeon Platinum 8490H, 1.90 GHz)

SPECrate®2017_int_base = 937

SPECrate®2017_int_peak = 967

CPU2017 License: 6138
Test Sponsor: Nettrix
Tested by: Nettrix

Test Date: Dec-2022
Hardware Availability: Jan-2023
Software Availability: Nov-2022

Peak Optimization Flags (Continued)

505.mcf_r: `basepeak = yes`

525.x264_r: `-w -std=c11 -m64 -Wl,-z,muldefs -xCORE-AVX512 -Ofast -ffast-math -flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -fno-alias -L/usr/local/intel/compiler/2022.1.0/linux/compiler/lib/intel64_lin -lqkmalloc`

557.xz_r: `basepeak = yes`

C++ benchmarks:

520.omnetpp_r: `basepeak = yes`

523.xalancbmk_r: `basepeak = yes`

531.deepsjeng_r: `basepeak = yes`

541.leela_r: `basepeak = yes`

Fortran benchmarks:

548.exchange2_r: `basepeak = yes`

The flags files that were used to format this result can be browsed at
http://www.spec.org/cpu2017/flags/Nettrix-Platform-Settings-V1.3-SPR-revA.html
http://www.spec.org/cpu2017/flags/Intel-ic2022-official-linux64_revA.html

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You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2017/flags/Nettrix-Platform-Settings-V1.3-SPR-revA.xml
http://www.spec.org/cpu2017/flags/Intel-ic2022-official-linux64_revA.xml

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

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