IBM System x iDP dx360 M2 (KVM virtual machine)

SPECompMpeak2001 = --
SPECompMbase2001 = 34384

Benchmark | Reference Time | Base Runtime | Base Ratio | Peak Runtime | Peak Ratio |
--- | --- | --- | --- | --- | --- |
310.wupwise_m | 6000 | 104 | 57528 | | |
312.swim_m | 6000 | 204 | 29340 | | |
314.mgrid_m | 7300 | 269 | 27179 | | |
316.applu_m | 4000 | 139 | 28733 | | |
318.galgel_m | 5100 | 162 | 31555 | | |
320.equake_m | 2600 | 63.2 | 41163 | | |
324.apsi_m | 3400 | 102 | 32622 | | |
326.gafort_m | 8700 | 235 | 36952 | | |
328.fma3d_m | 4600 | 194 | 32371 | | |
330.art_m | 6400 | 75.5 | 84792 | | |
332.ammp_m | 7000 | 373 | 18771 | | |

Hardware

CPU: Intel Xeon E5570
CPU Frequency: 2934 MHz
FPU: Integrated
CPU(s) enabled: 8 cores, 2 chips, 4 cores/chip (HT off)
CPU(s) orderable: 1-2 chips
Primary Cache: 32 KB I + 32 KB D on chip per core
Secondary Cache: 256 KB I+D on chip per core
L3 Cache: 8 MB I+D on chip per chip
Other Cache: None
Memory: 24 GB (6*4GB DDR3-1333 RDIMMs), 16 GB KVM allocated
Disk Subsystem: single 500GB SATA hosting a 8 GB KVM QCOW image
Other Hardware: None

Software

OpenMP Threads: 8
Parallel: --
Operating System: RHEL5.5 (x86_64) Kernel 2.6.18-194.26.1.el5
KVM Kernel 2.6.18-194.26.1.el5
KVM Version 83 Release 224.el5
Compiler: Intel C/C++ Compiler 11.1.072
Intel Fortran Compiler 11.1.072
File System: ext3; KVM ext3
System State: Multi-user, run level 3

Notes/Tuning Information

VM Configuration details:
1 VM for OMP2001 with 8 VCPUS
Only one VM per node
Host and guest OS installed using default parameters
KVM installed using default parameters
Intel Turbo Boost Technology (Turbo) : Disabled
ulimit -s unlimited
Removes limits on the maximum size of the automatically-
extended stack region of the current process and each
process it creates.
Compiler flags for base level optimization
COPTIMIZE : -O3 -xSSE3 -ipo -no-prec-div -unroll-loops0 -openmp
FOPTIMIZE : -O3 -xSSE3 -ipo -no-prec-div -unroll-loops0 -openmp
F77OPTIMIZE : -O3 -xSSE3 -ipo -no-prec-div -unroll-loops0 -openmp
Environment:
KMP_AFFINITY=enabled
controls the binding of OpenMP threads to the physical processing units
KMP_SCHEDULE=static,balanced
used to fine tune the load balancing of parallel loops that are
statically scheduled under OpenMP with no chunk size specification
KMP_BLOCKTIME=infinit
Sets the time, in milliseconds, that a thread should wait,
after completing the execution of a parallel region, before sleeping.
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Notes/Tuning Information (Continued)

KMP_LIBRARY=throughput
Selections the OpenMP run-time library
KMP_STACKSIZE=31m
Sets the number of bytes to allocate for each parallel thread to use as to use as its private stack
OMP_NESTED=TRUE
Enables (TRUE) or disables (FALSE) nested parallelism.
OMP_DYNAMIC=FALSE
Enables (true) or disables (false) the dynamic adjustment of the number of threads.
OMP_NUM_THREADS=8
Sets the maximum number of threads to use for OpenMP* parallel regions if no other value is specified in the program itself.