MokujIN QUAD/HEXADECAD *(4/16 threads)*

THE dummy command prompt x^y and x*y dumper

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// Copyleft Sanmayce, 2012-Nov-16.
// MokujIN, an OpenMP (multi-threaded) string multiplier, 16 threads enforced, written by Kaze, 2012-Nov-16, revision 5fix.
// Free download at: www.sanmayce.com/Downloads/MokujIN.zip
// How to compile (using Intel compiler) as MT i.e. with threading:
// D:\_KAZE\MokujIN_16threads>icl /Ox MokujIN_16threads.c /FAcs /FeMokujIN_r5_16-Threads_Intelv12 /Qopenmp /Qopenmp-link:static -DCommence_OpenMP
// How to compile as (using Intel compiler) ST i.e. without threading (default):
// D:\_KAZE\MokujIN_16threads>icl /Ox MokujIN_16threads.c /FeMokujIN_r5_One-Thread_Intelv12
// How to compile (using Microsoft compiler) as MT i.e. with threading:
// D:\_KAZE\MokujIN_16threads>cl /Ox MokujIN_16threads.c /FAcs /FeMokujIN_r5_16-Threads_Microsoftv16 /openmp -DCommence_OpenMP
// How to compile as (using Microsoft compiler) ST i.e. without threading (default):
// D:\_KAZE\MokujIN_16threads>cl /Ox MokujIN_16threads.c /FeMokujIN_r5_One-Thread_Microsoftv16

D:\_KAZE\MokujIN\MokujIN_r5fix>dir mo*.exe

11/16/2012  02:20 AM           386,560 MokujIN_r5_HEXADECAD-Thread_Intelv12_32bit.exe
11/16/2012  02:18 AM           462,336 MokujIN_r5_HEXADECAD-Thread_Intelv12_64bit.exe
11/16/2012  01:06 AM            77,312 MokujIN_r5_HEXADECAD-Thread_Microsoftv16_32bit.exe
11/16/2012  12:51 AM            88,576 MokujIN_r5_HEXADECAD-Thread_Microsoftv16_64bit.exe
11/16/2012  02:20 AM            99,840 MokujIN_r5_MONAD-Thread_Intelv12_32bit.exe
11/16/2012  02:18 AM           115,200 MokujIN_r5_MONAD-Thread_Intelv12_64bit.exe
11/16/2012  01:06 AM            75,776 MokujIN_r5_MONAD-Thread_Microsoftv16_32bit.exe
11/16/2012  12:51 AM            87,552 MokujIN_r5_MONAD-Thread_Microsoftv16_64bit.exe

D:\_KAZE\MokujIN_r5>MokujIN_r5_HEXADECAD-Thread_Microsoftv16_64bit.exe 2 1048576 /stats
MokujIN, Multiplication of INtegers, an OpenMP (multi-threaded) string multiplier, 16 threads enforced, written by Kaze, 2012-Nov-16, revision 5fix.
omp_get_num_procs( ) = 2
omp_get_max_threads( ) = 2
...
Multiplying performance for operands 157827 digits long: 158,658,356 MokujINs i.e. digits per second.
Total Time: 210 second(s).

D:\_KAZE\MokujIN_r5>MokujIN_r5_MONAD-Thread_Microsoftv16_64bit.exe 2 1048576 /stats
MokujIN, Multiplication of INtegers, a single-threaded string multiplier, written by Kaze, 2012-Nov-16, revision 5fix.
...
Multiplying performance for operands 157827 digits long: 86,792,201 MokujINs i.e. digits per second.
Total Time: 383 second(s).

D:\_KAZE\MokujIN_r5>MokujIN_r5_HEXADECAD-Thread_Microsoftv16_32bit.exe 2 1048576 /stats
MokujIN, Multiplication of INtegers, an OpenMP (multi-threaded) string multiplier, 16 threads enforced, written by Kaze, 2012-Nov-16, revision 5fix.
omp_get_num_procs( ) = 2
omp_get_max_threads( ) = 2
...
Multiplying performance for operands 157827 digits long: 156,662,653 MokujINs i.e. digits per second.
Total Time: 212 second(s).

D:\_KAZE\MokujIN_r5>MokujIN_r5_MONAD-Thread_Microsoftv16_32bit.exe 2 1048576 /stats
MokujIN, Multiplication of INtegers, a single-threaded string multiplier, written by Kaze, 2012-Nov-16, revision 5fix.
...
Multiplying performance for operands 157827 digits long: 83,308,902 MokujINs i.e. digits per second.
Total Time: 398 second(s).

D:\_KAZE\MokujIN\MokujIN_r5fix>MokujIN_r5_HEXADECAD-Thread_Intelv12_64bit.exe 2 1048576 /stats
MokujIN, Multiplication of INtegers, an OpenMP (multi-threaded) string multiplier, 16 threads enforced, written by Kaze, 2012-Nov-16, revision 5fix.
omp_get_num_procs( ) = 2
omp_get_max_threads( ) = 2
...
Multiplying performance for operands 157827 digits long: 164,962,661 MokujINs i.e. digits per second.
Total Time: 202 second(s).

D:\_KAZE\MokujIN\MokujIN_r5fix>MokujIN_r5_MONAD-Thread_Intelv12_64bit.exe 2 1048576 /stats
MokujIN, Multiplication of INtegers, a single-threaded string multiplier, written by Kaze, 2012-Nov-16, revision 5fix.
...
Multiplying performance for operands 157827 digits long: 82,481,330 MokujINs i.e. digits per second.
Total Time: 403 second(s).

D:\_KAZE\MokujIN\MokujIN_r5fix>MokujIN_r5_HEXADECAD-Thread_Intelv12_32bit.exe 2 1048576 /stats
MokujIN, Multiplication of INtegers, an OpenMP (multi-threaded) string multiplier, 16 threads enforced, written by Kaze, 2012-Nov-16, revision 5fix.
omp_get_num_procs( ) = 2
omp_get_max_threads( ) = 2
...
Multiplying performance for operands 157827 digits long: 147,392,674 MokujINs i.e. digits per second.
Total Time: 226 second(s).

D:\_KAZE\MokujIN\MokujIN_r5fix>MokujIN_r5_MONAD-Thread_Intelv12_32bit.exe 2 1048576 /stats
MokujIN, Multiplication of INtegers, a single-threaded string multiplier, written by Kaze, 2012-Nov-16, revision 5fix.
...
Multiplying performance for operands 157827 digits long: 74,802,888 MokujINs i.e. digits per second.
Total Time: 444 second(s).
```

MokujINs *stand for number of cycles of main loop of* ***MUL*** *function made per second.*
At each iteration/cycle a ***digit vs digit*** *multiplication is made.*

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*My laptop '**Bonboniera**' Core 2 T7500 2.2GHz gives **83+/156+** Mega**MokujINs** (1thread/2threads) using **32bit** code.*