

CENG 342 - Homework 3 Report

Matrix 1 Results(132*132):

Number of Cores	Elapsed Time(s)	Speed-Up ($S=T_{\text{serial}}/T_{\text{parallel}}$)	Efficiency ($E=T_{\text{serial}}/p*T_{\text{parallel}}$)
1	0.000092	1	1
2	0.000112	0.821428	0.821428
3	0.000152	0.605263	0.201754
4	0.000222	0.414414	0.103603

Matrix 2 Results(1032*1032):

Number of Cores	Elapsed Time(s)	Speed-Up	Efficiency
1	0.005545	1	1
2	0.005272	1.051783	0.525891
3	0.004120	1.345873	0.448624
4	0.004503	1.231401	0.307850

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iris@iris-VirtualBox:~/Documents/CENG 342 Parallel Programming/CENG342/hw1$ mpirun -n 1 ./19050111032 132 132 output.txt
Elapsed time is 0.000092 seconds for parallel mxv with 1 processes
iris@iris-VirtualBox:~/Documents/CENG 342 Parallel Programming/CENG342/hw1$ mpirun -n 2 ./19050111032 132 132 output.txt
Elapsed time is 0.000115 seconds for parallel mxv with 2 processes
iris@iris-VirtualBox:~/Documents/CENG 342 Parallel Programming/CENG342/hw1$ mpirun -n 3 ./19050111032 132 132 output.txt
Elapsed time is 0.000152 seconds for parallel mxv with 3 processes
iris@iris-VirtualBox:~/Documents/CENG 342 Parallel Programming/CENG342/hw1$ mpirun -n 4 ./19050111032 132 132 output.txt
Elapsed time is 0.000222 seconds for parallel mxv with 4 processes
iris@iris-VirtualBox:~/Documents/CENG 342 Parallel Programming/CENG342/hw1$ mpirun -n 1 ./19050111032 1032 1032 output.txt
Elapsed time is 0.005545 seconds for parallel mxv with 1 processes
iris@iris-VirtualBox:~/Documents/CENG 342 Parallel Programming/CENG342/hw1$ mpirun -n 2 ./19050111032 1032 1032 output.txt
Elapsed time is 0.005272 seconds for parallel mxv with 2 processes
iris@iris-VirtualBox:~/Documents/CENG 342 Parallel Programming/CENG342/hw1$ mpirun -n 3 ./19050111032 1032 1032 output.txt
Elapsed time is 0.004120 seconds for parallel mxv with 3 processes
iris@iris-VirtualBox:~/Documents/CENG 342 Parallel Programming/CENG342/hw1$ mpirun -n 4 ./19050111032 1032 1032 output.txt
Elapsed time is 0.004503 seconds for parallel mxv with 4 processes
iris@iris-VirtualBox:~/Documents/CENG 342 Parallel Programming/CENG342/hw1$
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