CPA Lab 2

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1 Objective

Parallelize the execution of a program that reconstructs an image whose rows have been shuffled. Study different approaches and some improvements to the algorithm.

Program	Execution time
encaja-e1	15.257217
encaja-e3	2.725587

Figure 1: Sequential execution times

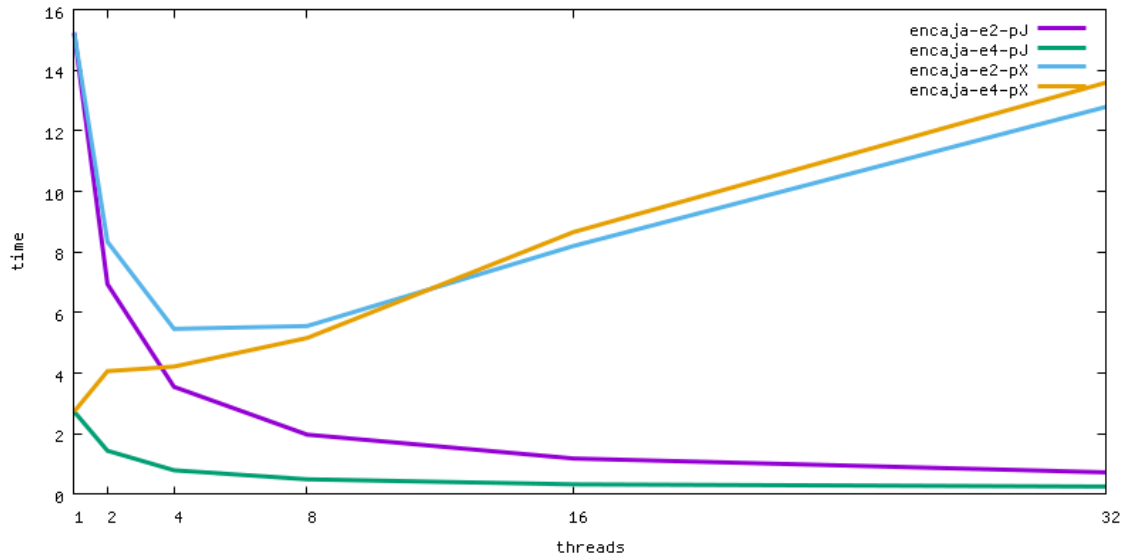| Program	2t	4t	8t	16t	32t
encaja-e2-pJ	6.938746	3.548883	1.970450	1.183996	0.726187
encaja-e2-pX	8.337415	5.464151	5.557857	8.197272	12.789012
encaja-e4-pJ	1.439842	0.795035	0.496000	0.330912	0.256960
encaja-e4-pX	4.065065	4.217589	5.164125	8.656438	13.590685

Figure 2: Parallel execution times

Figure 3: Threads —time graph