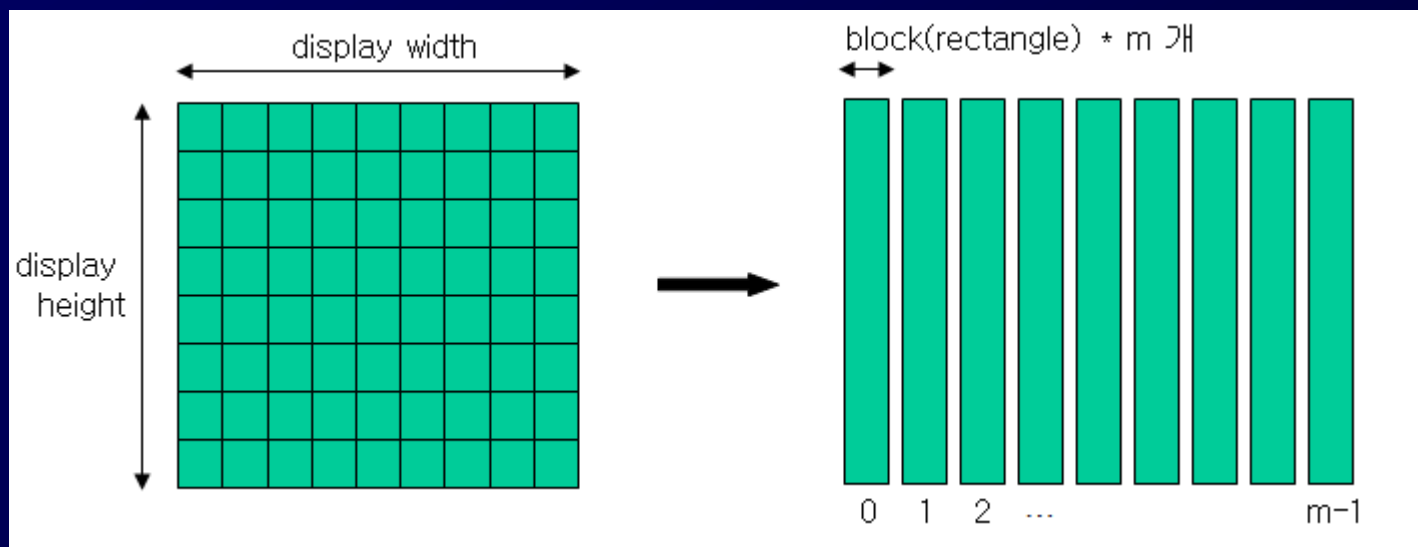

MPI Programming for Mandelbrot set

고려대학교 전기전자공학부
정 창 성

◆ Mandelbrot set

- Display width: 400
- Display height: 400
- N_rectangle: 40 (Display width를 N_rectangle 개수로 나눔)
- Process: 1 process, 4 processes, 8 processes

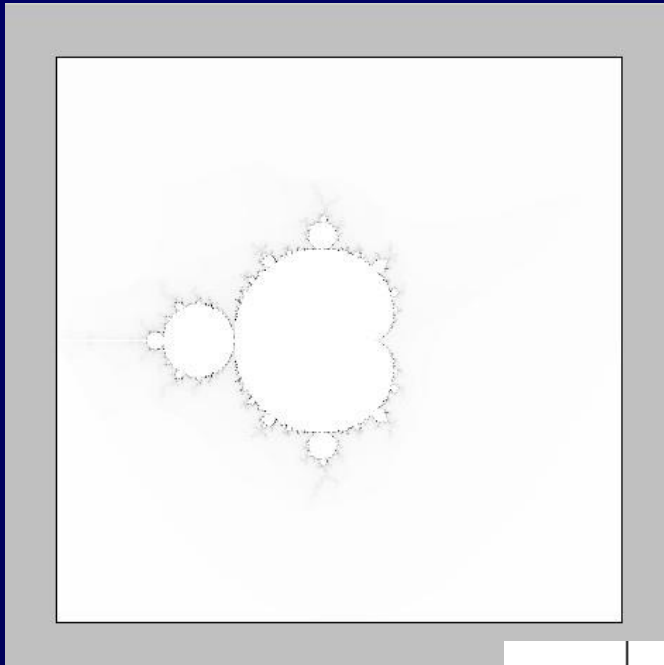


Parallel Programming Project

- ◆ Write a program which computes Mandelbrot set using MPI.
- ◆ Program in two ways : One is using static task assignment and the other is dynamic task assignment.
- ◆ Executes using 1 process, 4 processes, 8 processes, respectively.
- ◆ Output : display a 400 x 400 image
- ◆ Submit source file, executables and report file(hwp,docx)
- ◆ Due date: May 13, 2021

Parallel Programming Project

◆ Example of output



		1	2	3	4	5	6	7	8	9	10	평균
dynamic	single	138.182	95.3	122	111	111	109	116	109	107	105	112.3
	2 core	118.354	117	140	132	113	139	134	124	144	121	128.2
	4 core	99.8063	102	105	97.2	116	112	87.4	97.8	89.2	103	101
	8 core	94.8607	96.4	101	9.84	94.4	95.2	101	93.5	108	98.6	89.28
static	single	115.962	140	97.6	124	95.8	124	112	98.3	107	116	113.1
	2 core	142.74	147	150	156	148	140	132	135	156	136	144.2
	4 core	148.994	166	161	168	160	157	160	151	168	155	159.6
	8 core	166.286	180	194	201	161	154	206	185	143	206	179.6