

Solution for Assignment #3

Submission Date: 2025. 02. 17.

Name: _____

❑ Experiment Setting

- Cameras Setup
 - # of Cameras: 14 connections
 - FPS for Cameras: 15fps is maximum
 - Count fps on 2 minutes streaming
- Setting for FFMPEG
 - Latency: (cannot set latency)
 -
- Setting for GStreamer
 - Latency: 200ms
 -
- Setting for Visualization
 - Resolution: [640, 480]
 - # of Visualizer: 14 visualizers in opencv

❑ Problem #1. FPS Comparison in Sequential Case

- Result for FFMPEG in Frame Grab

[illegible]

- Result for FFMPEG in Visualization

[illegible]

- Result for GStreamer in Frame Grab

[illegible]

- Result for GStreamer in Visualization

[illegible]

❑ Problem #2. FPS Comparison in Parallel Case: Multi-Threading

- Result for FFMPEG in Frame Grab

[illegible]

- Result for FFMPEG in Visualization

[illegible]

- Result for GStreamer in Frame Grab

[illegible]

- Result for GStreamer in Visualization

[illegible]

□ Problem #3. FPS Comparison in Parallel Case: Multiprocessing

○ Result for FFMPEG in Frame Grab

Cam Cases	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	15.33	15.63	15.40	15.33	15.36	15.36	15.36	15.37	15.61	15.38	15.12	15.35	15.37	15.20
2	15.23	15.61	15.60	15.35	15.38	15.35	15.35	15.36	15.61	15.60	15.35	15.38	15.37	15.20
3	15.35	15.61	15.60	15.37	15.35	15.37	15.37	15.35	15.60	15.62	15.37	15.37	15.37	15.21
Avg.														

○ Result for FFMPEG in Visualization

Cam Cases	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	9.30	9.32	9.31	9.31	9.33	9.31	9.31	9.33	9.33	9.32	9.20	9.32	9.34	9.32
2	9.13	9.20	9.23	9.25	9.24	9.24	9.24	9.26	9.23	9.21	9.24	9.23	9.24	9.23
3	9.07	9.14	9.14	9.14	9.15	9.13	9.15	9.15	9.14	9.12	9.14	9.16	9.16	9.16
Avg.														

○ Result for GStreamer in Frame Grab

Cam Cases	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	15.00	14.99	15.01	15.02	14.99	15.01	15.00	15.02	15.02	15.02	15.01	15.02	15.02	15.02
2														
3														
Avg.														

○ Result for GStreamer in Visualization

Cam Cases	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	8.90	8.88	8.91	8.88	8.89	8.88	8.90	8.90	8.90	8.91	8.90	8.91	8.90	8.91
2														
3														
Avg.														

○