ABSTRACT

*Production efficiency covers a large area, such as the speed at which the production equipment and production line can be set to make a product, reduce material costs and wages of a production, improve quality and reduce rejects, minimize downtime of production machines, and low cost of production equipment . Programmable Logic Controller (PLC) is one of the keys to improving production efficiency in the industry. One study in the Telkom Institute of Technology campus on the PLC that is Riset Andalan Perguruan Tinggi dan Industri (*RAPID*). The study is divided into several parts, one part is the software. Research on the software it is running but the software is still relatively immature, such as the absence of controlling and Monitoring capabilities using PC Server and accessed through a PC Client.*

Given these imperfections, the researchers tried refine the software by adding the ability RAPID *PLC can be controlled and observed on a PC Server and PC Client.*

The results of the testing in this study shows the execution time PC Server to mySQL database for an average of 0.0028 seconds, time PC PLC RAPID sends dummy data format to a PC Server with an average of 3.6775 seconds. Client PC can monitor PC PLC RAPID dummy with an average of 0.1279 seconds for monitoring ch0, 0.0122 seconds for monitoring CH1, 0.0081 seconds for monitoring CH100, CH100 for controlling the average time of 0.0118 seconds.

Keywords: PLC, java, database