ABSTRACT

In the industrial world now entering the trend of industrial automation where in the industrial world, especially in factories, many use automation systems, the controllers of most automation machines themselves use PLCs, in PLC programming, it is necessary to have a step diagram which will later be translated into a ladder diagram, suitability and the accuracy of the step diagram itself is the key to the success of the automation system itself. To overcome the suitability and accuracy of the step diagram on the movement of the piston itself, the author conducted a study that discussed "Analysis of Piston Movement Settings Based on the Step Diagram Using Hmi Wonderware intouch", where pneumatic piston movement is controlled and monitored from HMI Wonderware intouch. In this study, the author makes 5 different step diagrams, where each step diagram will be tested and analyzed for the accuracy and suitability of the movement in real conditions and the movement displayed by HMI Wonderware Intouch. From the results and discussion obtained by the author, it can be concluded that a complicated step diagram makes the delay longer, conflicts in the step diagram make HMI performance decrease, the use of OPC affects delay, and delay makes a real difference in piston movement with that described by HMI Wonderware. intouch.

Keywords : *Programmable Logic Controller,* HMI *Wonderware intouch, Electropneumatik System, Displacement Step Diagram, OPC Quick Client.*