

ABSTRACT

Programmable Logic Controller (PLC) is an electronic device which has ability to save and do various kinds of instructions and implementation functions in control system. PLC using develops rapidly enough in industrial environment at these ten years recently. In its programming, each kind of PLC which used Ladder Diagram as programming language for example, has its own protocols and rules for each kind of its type. So, it is not really efficient and effective for the industrial which use more than one type of PLC.

Ladder Diagram is one of the common programming languages which is used by PLC. Ladder Diagram consists of simulation logics that have been functioned by mechanic relays. This Final project will be designated a programming software, that is like a Ladder Diagram, which able to support programming activities in PLC using Java Programming Language and STM32 Micro PLC as controller.

As a result of this Final Project is a graphical interface software between the PLC and it user in programming and designing of Ladder Diagram, also a display of inputs/outputs and instructions as PLC Controller System.

Keywords : Ladder Diagram, STM32 Micro PLC, Java Programming Language