ABSTRACT

Sonja Chocolate Factory (SCF) is a cottage industry that produces chocolate converture. This cottage industry sub-contract from one of the largest chocolate processing Indonesia. Because of a cottage industry, the technology used is also still using human labor to produce chocolate. Consumer demand is increasing each year, this cottage industry requires improving the technology, especially in the production control system. One effective control is by using Programmable Logic Controllers (PLC). But the problem is that if the production increase also increase the complexity of the data to control and analyze the data at the time of the production takes place.

To overcome these problems required accurate data report and should be able to control and direct control production plant using the program Supervisory Control And Data Acquisition (SCADA) equipped with Recipe Manager, In this study capitalize three work stations: Mixing, Tempering and Molding. The first process is carried Recipe Manager is a recipe that is input to be made, input the amount of production to be made, input the processing time to be created, as well as the temperature at the input of each process Mixing, Tempering and Molding. Then entered the Mixing process is mixing the raw materials into the eighth ballmill tanks. Then Tempering is the process of temperature regulation function that chocolate can be frozen at the time of printing. Furthermore, the process of molding chocolate molding finished and packed every 1 kg of chocolate. Process monitoring workstation generate data report automatically stored in Microsoft Access.

From the results of reaserch conducted concluded that the design automation at the work station Mixing, Tempering and Molding using SCADA equipped with Recipe Manager successfully designed. With the monitoring of remote work station will allow the operator to monitor work stations primarily facilitate the operator in trouble shooting as well as the more accurate the data acquisition process in addition to the operator can change the recipe according to the composition of the materials requested and will immediately produce the desired recipe appropriate.

Keywords: Database, HMI, ODBC, Automation, Recipe Manager, SCADA