Abstract

As technology advances, industrial companies and their systems need to be able to adapt swiftly when it comes to rapid production changes to meet the market needs of today for innovative products. Majority of automated industrial systems are controlled with programmable logic controllers (PLCs) that are programmed with ladder logic. With the incorporation of internet control using a Web-Based server to command and control a PLC for an industrial system, great advances can occur due to the internet being an increasable and an important intermediate for distributing information through the World Wide Web. By controlling and commanding a machine from a remote location through a Web-Based server, operating and observing the system can become cheaper and trouble-free. The focus of this study was primarily to construct a miniaturized automated color sorting system to be controlled by a PLC trainer set in order to determine how well a Web-Based server will do with the incorporation of a PLC. Future works include the comparison of the current Web-Based Server that was developed against a different type of Web-Based Server.
References


6. Zafer Aydogmus, Member, IEEE, and Omur Aydogmus, Student Member, IEEE, “A Web-Based Remote Access Laboratory Using SCADA,” Turkey, 2008


Index Terms

Computer Science

Information Sciences

Keywords

Programmable Logic Controllers, Color Sorting, Web-Based Server, Automated Systems.

RESEARCH OBJECTIVE

The focus of this study was primarily to construct a miniaturized automated color sorting system to be controlled by a PLC trainer set in order to determine how well a Web-Based server will do with the incorporation of a PLC. The objective of this system
was to create a continuous system by sorting colored marbles (RGB) into groups by their color then randomizes the output before being fed as a new input for the system. The type of Web-Based server plays a great role in the overall productivity of an industrial system due to the connection speed between the Web-Based server and the PLC. A Web-Based server using Apache, HTML, PHP Script, VB application, and a Web-cam Server were used for this research. In future research, comparison of another Web-Based Server will be used which will be developed from Information Servers (IIS) with an Active Server Page (ASP) to determine the overall performance between th