

ABSTRACT

HMI is a tool used to connect humans with machines and is widely applied in automated industries. HMI plays a crucial role in such industries by displaying information about the ongoing processes and machinery to human operators and serving as a medium for input into those processes. One of the industries that utilizes HMI is PT XYZ, a company focused on producing packaged dairy beverages. PT XYZ aims to implement HMI in its workstations, including a workstation dedicated to sorting packaged milk bottles based on bottle height. To design this HMI, a structured workflow is needed to facilitate the development process. One method that can be used as a design workflow is the Waterfall method. However, the Waterfall method does not provide detailed guidelines for HMI designers on how the interface should be designed. Such detailed design guidelines are found in the International Society of Automation (ISA) 101 Standard. Considering the structured steps provided by the Waterfall method and the design guidelines offered by the ISA 101 Standard, these two approaches can be integrated to produce not only a sequential workflow but also a clear reference on how HMI should be designed in accordance with standards. In response to the need for an HMI in the packaged milk bottle sorting workstation at PT XYZ, this study was conducted to discuss the design of the HMI using a workflow derived from the integration of the Waterfall method with the ISA 101 Standard.

Key words: Human Machine Interface (HMI), International Society of Automation (ISA) 101, Waterfall

