ABSTRACT for the 2016 ISA WWAC Symposium

# ISA101: Human Machine Interfaces for Process Automation Systems

What It Is and Why It Is Needed – Status Update and Current Activities

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30 minute presentation – Guest Speaker

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## ABSTRACT

Safe and efficient facility operations are directly related to the Control Room Operator's access to reliable and accurate, real time operational information. A well-designed Human Machine Interface (HMI) should give the Operator the ability to monitor and interact with the processes, by displaying process data as organized and usable information. HMIs have often been designed to be simplistic graphical representations of the process data, through individual displays depicting states (colors), values, and trended data on charts. ANSI/ISA-101.01-2015, the new ISA-101 *Human Machine Interfaces for Process Automation Systems* standard is a consensus created document that addresses the design, implementation, and maintenance of HMIs from a holistic standpoint and identifies documentation and design practices that will lead to more effective and maintainable HMI implementations.

Many books and papers have been written on designing effective HMIs, ones that are meant to help ensure that the operator has the ability to monitor and control their processes safely and productively, but ISA-101 provides standardized guidance to design, build, and maintain HMIs which will result in more effective and efficient control of the process, in both normal and abnormal situations. ISA-101 addresses HMIs for automated processes to improve safety, quality, and productivity and is applicable to continuous, batch, and discrete processes.

This presentation will describe the call for the new ISA HMI Standard, provides a detailed chronicle of its journey from charter to ANSI approval, and its ongoing activities.

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## ABOUT THE AUTHOR

**Greg Lehmann, CAP** *is a Process Automation Technical Manager with 30+ years of experience in engineering, design, construction supervision, start-up, and commissioning of various process equipment,*

*instrumentation, and control systems used in oil & gas, mining, manufacturing, food & beverage, and water treatment facilities. Employed by AECOM, Greg is currently assigned to the AECOM Denver, Colorado Oil & Gas office and is Co-Chair of the ISA-101 Human Machine Interfaces for Process Automation Systems standard committee. Contact: Greg.Lehmann@aecom.com*