

Graphical Representation of Industrial Alarm Data

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Abstract: Alarms are important for safe and reliable operation of a process. Ideally, every alarm that is presented to the operator requires an action. Owing to the ease in implementing alarms, many modern day process plants have a large number of alarms configured in their alarm system. Many of these alarms are set without proper rationalization resulting in the generation of nuisance alarms. During process upsets, the volume of alarms presented to the operator is often too large to facilitate appropriate and timely actions. This work demonstrates some novel visualization tools that can be used for assessing the performance of alarm systems in terms of effectively identifying nuisance alarms. The utility of the developed tools is illustrated using real industrial alarm data.

Keywords: Alarm systems, process monitoring, Fault Detection, Visualization, HMI.
