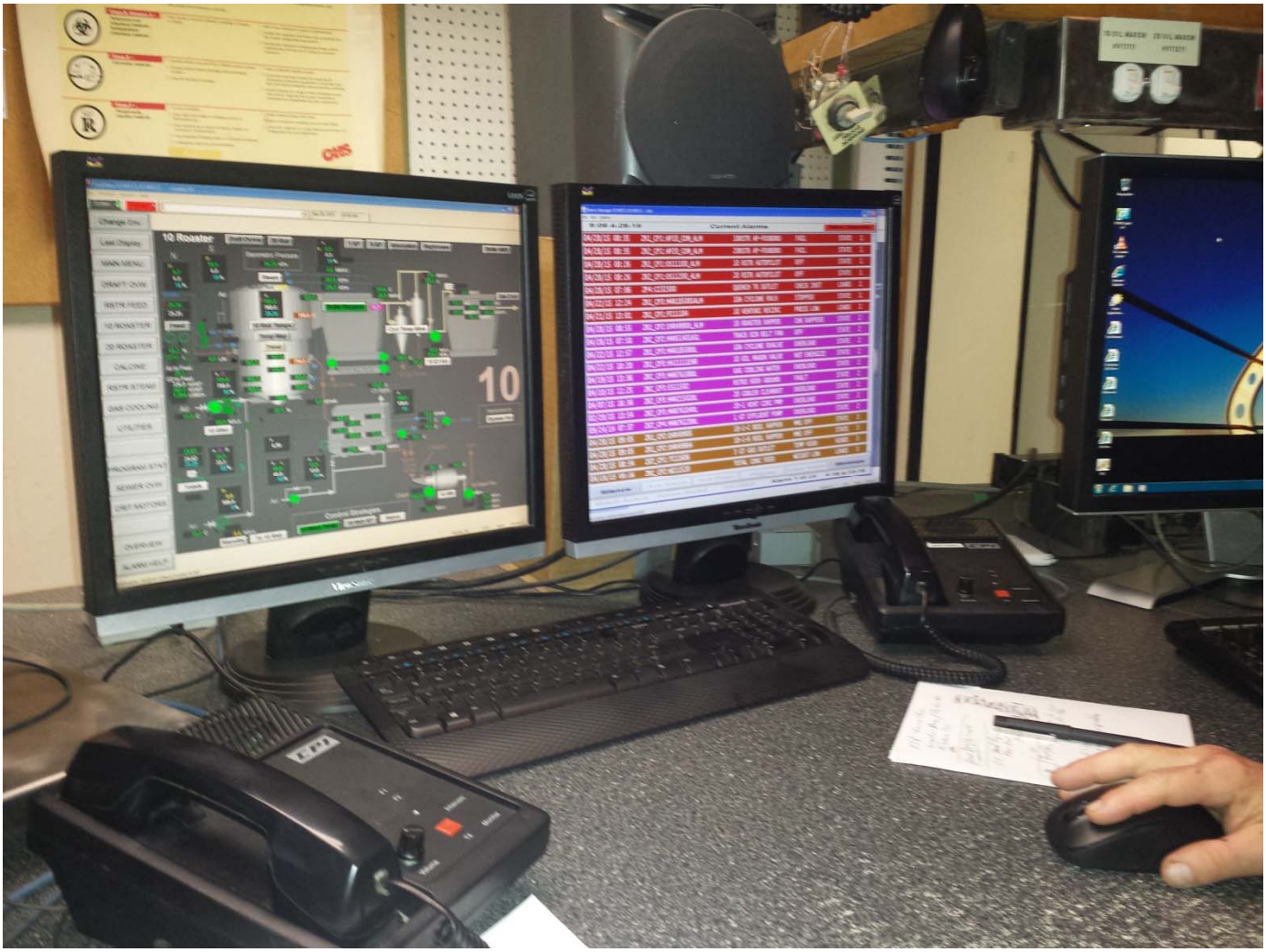
Automan Controls www.AutomanControls.com

How to Succeed with Alarm Management

Background on process control alarms

Operators are faced with responding to many alarms every day that could indicate a plant process issue, a maintenance issue or an incorrect alarm setting. If alarms are not managed, plant control can become an onerous task with too many alarms for the control operator as the following screen shot illustrates.



Even though some might be spurious or “false alarms” that have no consequence, alarms can’t ever be ignored as they may signal a safety hazard, environmental incident, process upset, or loss of production. However, the number of alarms needs to be kept to a manageable level. This undertaking is commonly known as Alarm Management and it’s the workflow designed to reduce false and unnecessary alarms.

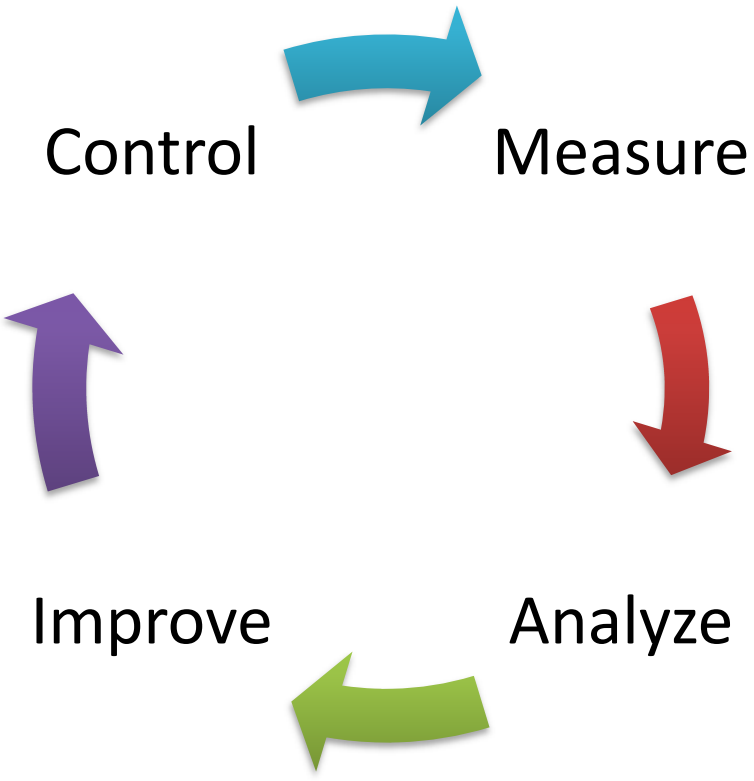
Automan Controls www.AutomanControls.com

Keeping alarms to a manageable level and to focus on the important ones

A plant can typically run at 3,000 alarms a day, and that translates to more than 2 alarms each minute. Ergonomic studies show that an operator can capably handle up to one alarm a minute and best in class in heavy industry is at one alarm every 3 minutes. Alarm Management software is implemented to develop alarm reporting tools to assist in managing alarms, and keep the total number of alarms that a control operator has to deal with to a manageable level.

Alarm Management software can also provide email notification and customizable summary reports for things like critical safety and environmental alarms. The software flags "bad actor" alarms so they can be fixed; and track total alarms per day that assists in getting plant alarms down to a manageable level. For critical situations that require faster management response, the software generates immediate emails when an important process event has occurred. The email is typically distributed to plant engineers, superintendents, business area managers and/or the environment business unit. Automated emails are also being used to monitor critical reagent levels. When the level drops to a pre-set value, an alarm is triggered and an automatic email notification is sent to a distribution list to ensure more reagent is ordered.

Alarm Management has been further made simpler for supervisors by having alarm Key Performance Indicators (KPI's) displayed in reporting software. Information on alarms is easily viewed by plant and time period, what the alarm priorities are, and when they have occurred.



Automan Controls www.AutomanControls.com

Benefits of managing alarms

Alarm Management is the utilization of software tools that assists in getting plant alarms down to a manageable level. This is so operators can always focus on the key alarms they only need to act upon. Alarm Management should be able to:

- Quickly provide information on daily alarm count trends over specific periods of time. This information indicates if a Plant's production efficiency is improving or deteriorating and what focus is necessary to optimize performance.
- Easily conduct a more detailed analysis of specific alarms, e.g. when they are occurring, how often they are occurring, spurious alarms, etc.
- Conveniently communicate alarm notification via email or SMS on critical production and/or environmental alarms.

An operator never wants a shift to be about struggling with alarms. Alarm Management tools is one solution to contribute towards stable plant operation and assist plant operators to quickly and effectively focus on the important alarms.