# Combining OEE and Automation
for Improved Performance
A crucial part of remaining competitive

Overall equipment effectiveness (OEE) calculations can turn rivers of Big Data into nuggets of actionable information. OEE is a metric designed to evaluate how efficient a production operation truly is, based on the real-world availability of the equipment used. The key for the many facilities is leveraging automation with real-time monitoring controls. Many users combine the use of automation and OEE tracking as part of their lean improvement efforts. OEE can also became an important bridge towards improving problem solving and developing a continuous improvement culture. Use OEE to measure and improve operational efficiency.

OEE in action. Seeing your goals is meeting your goals

- Use simple, very large graphical displays visible to the operators on the line with ongoing performance vs. planned performance.
- Automatic trend analysis can show the reasons contributing to most of the stoppages and downtime.
- Direct translation to lost processing time and lost money is the next step.
- Use alarms when a trend has been detected.
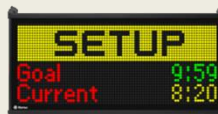
Empower operators – calculate the OEE

- of the line,
- of the machines, and
- the availability of material handling systems.

Generate detailed reports to show operators downtime.
Pareto charts of:

- the machines and
- conveyors, including quality and KPI reports.
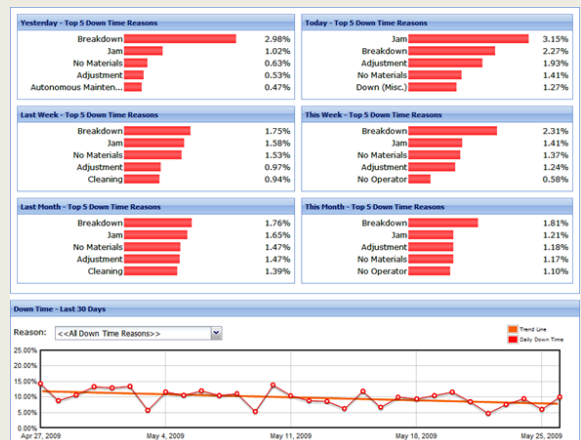
Use SCADA on the plant floor to show operators the alarms and warnings of the machines they are operating to help them react immediately if a fault occurs. This system can help improve the efficiency of the line and also reduce operations staff.

Maintain reporting integrity.

As simple as the calculations can be,
OEE provides many reports so that plant
and management who have certain targets
in mind cannot manipulate any nuances.
Honesty in reporting validates the program.
Data logging and measurement are simple.
OEE is relatively standard. It is based on how
you define your system and efficiency.
Once set up right, it consistently tracks the
system and results.
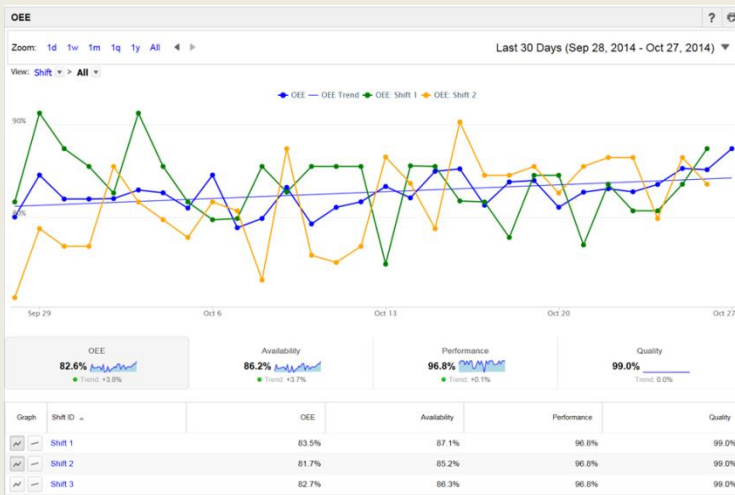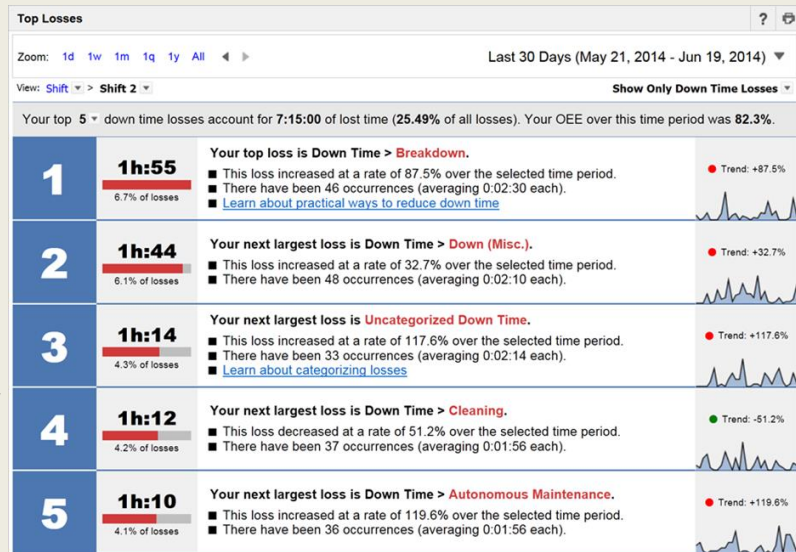
Integration with batch controls.

Integrating an OEE system and its measurement
Parameters with other existing software that
control batch production is important for
assessing automation ROI.
OEE applies equally to the batch processes in
your plant, as continuous improvement has
lessons for continuous process as well.

How, When and What to Measure

Equally suitably usable for operations with limited personnel resources and numerous low
volume production runs.
Can be set up to track production lines performance as well as a total unit by each production
asset individually.
Measuring and capturing relevant data provides the ability to evaluate the line at each machine
center to formulate real-time impressions of the improvement opportunities, while the
background data can be pulled from the system for point-in-time analysis. Having this
data, accurate downtime reason codes can be implemented for root cause analysis.

matrixATC