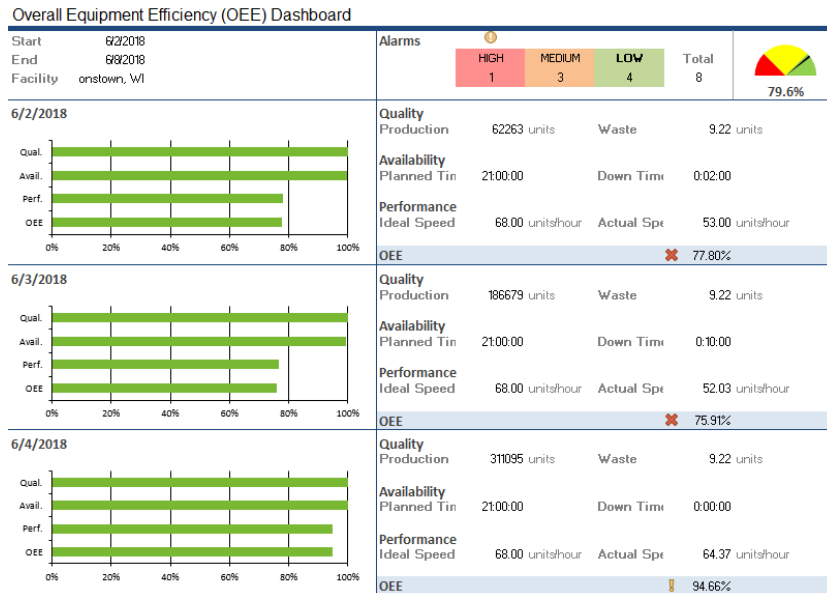


Overall Equipment Effectiveness

Overall Equipment Effectiveness

Overall Equipment Effectiveness (OEE) was developed in Japan in the 1960s as a way to evaluate how effectively a manufacturing operation is utilized. It is core metric used in **Total Productive Maintenance (TPM)** and is usually used for measuring improvement.



XLReporter combines raw process data e.g., equipment runtimes/rates and manual data e.g., production targets, to present OEE reports and dashboards.

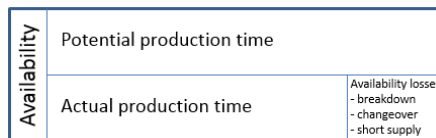
A big mistake most people make is to believe OEE is simply a score. On the contrary, if interpreted correctly it helps production and management to identify equipment losses and waste.

OEE Calculation

OEE has three main components built around answer to basic process utilization questions:

1. Are we running or not?

This is **Availability** and measures time loss. It is expressed as the ratio of actual production time (regardless of speed or quality) to the potential production time.



Since OEE is used to identify unplanned stoppages, any period of time for planned stoppages is removed from the calculation.

2. How fast are we running?

This is **Performance** and measure speed loss. It is expressed as the ratio of the actual output (regardless of quality) to the theoretical output during the time actually operated.

Performance	Theoretical output		Availability loss
	Actual output	Performance losses: - stoppage - low speed	

3. How much product met specification?

This is **Quality** and measures quality loss. It is expressed as the ratio of good output produced to the actual output.

Quality	Actual output		Performance loss	Availability loss
	Good output	Quality losses: - scrap - rework		

Overall equipment effectiveness is calculated from these components by the following formula:

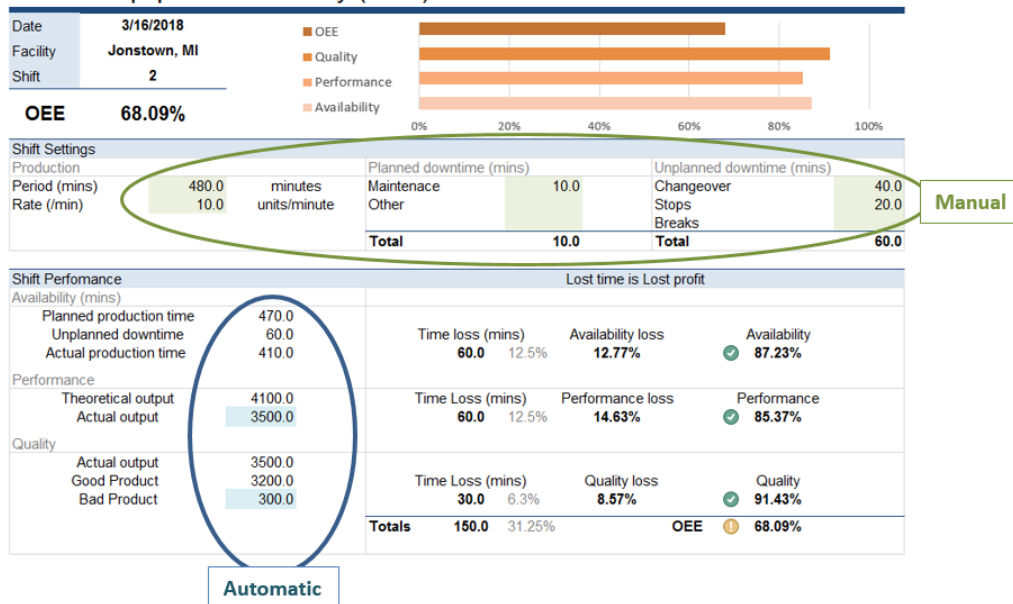
$$OEE = \text{Availability} * \text{Performance} * \text{Quality} * 100\%$$

Why XLReporter

Most Companies use Microsoft Excel for the OEE calculations because it is ideal for implementing the OEE formulas. A drawback of this approach is that it is manual operation which results in the OEE “scores” becoming available after-the-fact. It would be more desirable to have an up-to-date score that is available at all times.

A justification for using XLReporter is that the OEE values can be calculated and distributed more frequently, keeping operators and management informed.

Overall Equipment Efficiency (OEE) Shift Performance



Benefits

- **Use What You Know**
Anyone can use **XLReporter**. Our report template designer is available in the familiar environment of Microsoft Excel.
No learning curve to perform the obvious and access to an online community of Excel enthusiasts ready to assist.
- **“Out-of-box” templates**
For immediate results, **XLReporter** provides built-in templates.
- **Save Time and Free Resource**

Free valuable human resource by having XLReporter produce Excel Workbooks, Encrypted PDF and Web Pages, automatically or on-demand, at incredible speeds and consistent with the template design.

- **The Right Information to the Right Person at the Right Time**

Distribute reports by email, FTP, file server and printers. Enable XLReporter's Web Portal and access reports from any device supporting a web browser such as a smart phone or tablet.

- **Start Small and Grow**

XLReporter fits any budget and seamlessly integrates into any existing system.

Start on a standalone workstation generating reports automatically and grow to a team of workstations, each generating their own reports on-demand.

- **Much More Than Reports**

XLReporter is more than just reports. It provides a scheduler, data logger, manual data entry and powerful analytics.

It also automatically manages files and folder, provides tools to modify database tables and much more.

Features

- Data connectors to the leading manufacturing data
- Standard and industrial calculations and functions e.g., actual run times, production totals
- Data entry forms for manual data entry e.g., downtime and reasons
- Automatic production and distribution of reports
- On-demand reports locally or across the network.