



“ PRODUCTION SCOREBOARDS  
KEEP TRACK OF MY MACHINE STATS ”

*The Winning Team*

## Production Marquee Scoreboards can Benefit Your Company

- **Inform** and motivate plant personnel
- **Display** real-time key performance indicators (KPI's)
- **Monitor** your real-time production data anywhere in the world
- **Collect** production data to evaluate your process
- **Minimize** downtime and setup costs
- **Reduce** material scrap through alarms and monitoring
- **Alert** with early warnings of change in production process
- **Replace** whiteboard style monitoring and data collection



**Simple OEE**

### KEY PERFORMANCE INDICATORS (KPIs)

- |   |  |
|---|--|
| • Counts (good, bad, reject, etc.)      | • System Status (run, setup, down)             |
| • Run Rate (takt time, parts per hour)  | • Cycle Times (setup, tool change, production) |
| • Alarms (part shortage, machine down)  | • Efficiency (yield, downtime, % complete)     |
| • Production Goals (target, pace, rate) | • OEE (performance, availability, quality)     |

## Simple OEE - What is it and How is it Calculated?

Overall Equipment Effectiveness (OEE) is a way to monitor and improve the efficiency of your manufacturing process. OEE is the key metric in Total Productive Maintenance (TPM) and Lean Manufacturing and is broken down into three measuring metrics of Availability, Performance, and Quality. These metrics will help you gauge your plant's efficiency and effectiveness and provide the key productivity losses that occur within a manufacturing process. The OEE calculation below illustrates these metrics and quantifies the numbers to help measure where you are and how you can improve. We call it Simple OEE because the Production Marquee provides all these metrics without programming any code or formulas.

Production Data (Calculated Values within the Production Marquee)		Data Source
Shift Length	480	Total Production Minutes per Shift Run Time
Breaks	60	Total Break Minutes per Shift Run Time
Down Time	30	Total Downtime Minutes per Shift Down Time
Setup Time	15	Total Setup Minutes per Shift Setup Time
Total Parts	380	Total Parts Produced per Shift Total Count
Bad Parts	5	Bad Parts Produced per Shift Bad Count
Expected Parts	400	EPPS (Expected Parts per Shift) Target Counter

Process Data	Formula	Result
Run Time	Shift Length - Breaks	420
Total Time	Down Time + Run Time + Setup Time	465
Good Count	Total Parts - Bad Parts	375

OEE Variables	Formula	Result
Availability	Run Time / Total Time (420 / 465)	90.32%
Performance	Total Parts / Expected Parts (380 / 400)	95.00%
Quality	Good Count / Total Parts (375 / 380)	98.68%

Simple OEE	Availability x Performance x Quality	<b>84.67%</b>
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## Simple OEE - How it Works with the Production Marquee?

DataVisor Marquees has built the Production Marquee Series that combines a visual display with ethernet communications, digital I/O, and web server technology integrated into one self contained package. With no software to install and the data source formulas programmed into the marquee, all the end user has to do is select the functionality of the application from drop down menus. Setup and monitoring of this real time production data is as simple as opening a web browser and entering the IP address of the marquee display. Imagine real time plant floor production data monitored and collected anywhere within your facility. Just supply two inputs, enter your target counter value and cycle time and the above OEE calculation is displayed, monitored, and collected by simply choosing OEE as the data source. Additionally, you can select your Goal, Break Schedule, and other Production Data Sources that are important to view and monitor from your production process. Below is a table that lists the functionality of the Production Marquee. You provide the inputs, select the data sources and the Production Marquee will take care of the rest. It's that simple. Simple OEE.

Customer Selects	DataVisor Marquees Displays, Monitors, and Collects	Data Source / Web Tab
One Input	Availability, Total Count, % Complete, Rate, Cycle Times, Run Time, Down Time	Total Count
Second Input	Quality, Bad Count, % Bad	Bad Count
Target Counter Value	Performance, OEE, Pace, % of Pace	Target Counter
Takt Time Interval	Target Counter, Takt Time Remaining, Takt Time Elapsed	Count / Rate / OEE
Target/Goal	Goal, % Complete, Pieces to Goal	Goal
Run Input	Monitor Down Time and Run Time	Down Time
Setup Input	Monitor Setup or User Time	Setup Time
Call Inputs	Display Override Messages along with Timer Values	Override Messages
Break Schedule	Select Break Times and Lunch Break Times	Break and Down Times

**Call or visit our website to learn more about our production monitoring solution.  
Let DataVisor Marquees help you calculate your **Simple OEE**.**