

CASE STUDY : PERNORD RICARD



Pernod Ricard



Ingenious Techzoid

Ingenious Techzoid is one of the emerging technology company in the field of Industrial Automation and Industry 4.0.

AT A GLANCE

Challenges

- Pernod Ricard wanted to enhance the bottle quality and lower the production cost by minimizing the defected bottles on the assembly line
- At the same time the management desired production data for formulating effective production process.
- The same businesses also requires stringent SLAs.
- We needed to enhance our reputation as a trusted provider of IoT solution services.

Benefits

- Real time and reliable data from machine for Maintenance as well as Operations.
- Real time triggers for anomalies as configured



"For over 04 years, we've been developing new technology for enterprises of all sizes.

We believe in delivering exceptional results for our clients by gaining an in-depth understanding of needs, customer requirements and combining it with a perfect combination of strategy driven innovative skills to its highest level of execution.

HIS Group Ingenious

OBJECTIVES

To enhance the bottle quality and lower the production cost by minimizing the defected bottles on the assembly line.

SOLUTIONS

At Pernod Ricard with machines varying in age and complexity, and two fundamentally different types of facilities, few assets were instrumented with sensors that provided data analytics to management. The design of production management system employed the efficient use of sensors, devices and resources in a way to calculate overall equipment efficiency (OEE), the metric the management needed the most to gauge efficiency in producing a single wine bottle. There were several critical aspects that the implementation needed to address.

- Date (particularly helpful for detecting issues that have implications for seasonal forecasting)
- Shift (by number)
- Product (name or code)
- Process (or work area involved)
- Equipment (name or code)
- Issue (reasons for the disruption)
- Planned Downtime (Changeover, documented in minutes, hours, etc.)
- Unplanned Downtime (Breakdown due to unavailability of resource or technical glitch)
- Action taken against the downtime (comment on the action taken, which can be used to develop a corrective action plan)

BENEFITS

Productivity Improvement: Get an insight into parameters that impact line productivity, such as line, rates, loss and quality analysis at multiple levels.

Traceability: Trace a product through its manufacturing life cycle, and derive insights around critical quality, condition and production data at every stage.

Quality: Perform root cause analysis of parameters that govern product quality using statistical techniques. Correlate this with machine condition.

Plant Overview

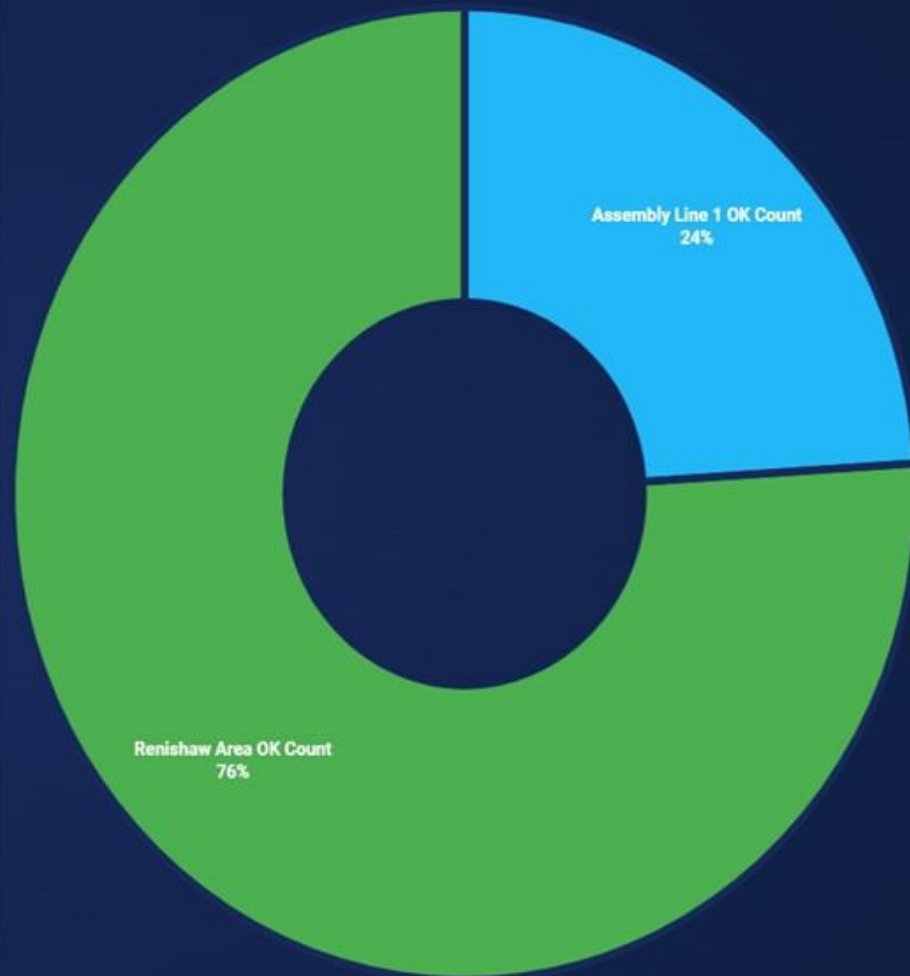
Production Machines



Machine Name ↑	OK Count	NG Count	OEE
Assembly Line 1	478	5	81.38 %
Renishaw Area	1514	40	51.33 %



OK Count



PMS

OK Count

478

NG Count

5

Loss

0:55:23

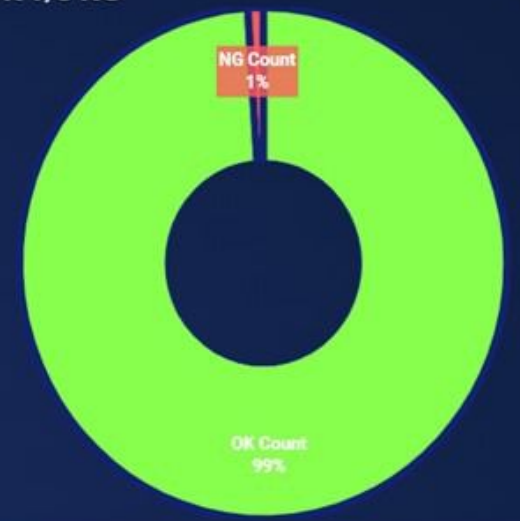
Loss Count

2

MTTR

0:27:41

OK v/s NG



OEE

81.38 %

Quality

98.95 %

Availability

89.33 %

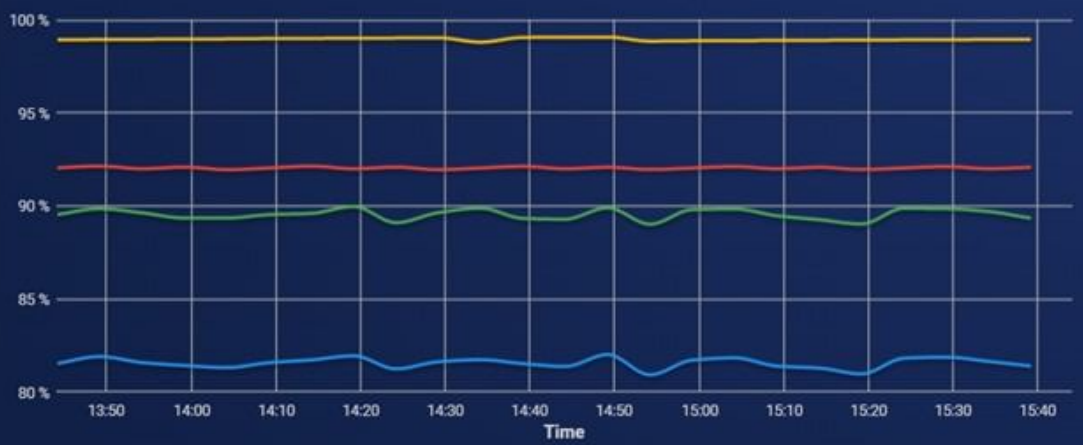
Performance

92.07 %

MTBF

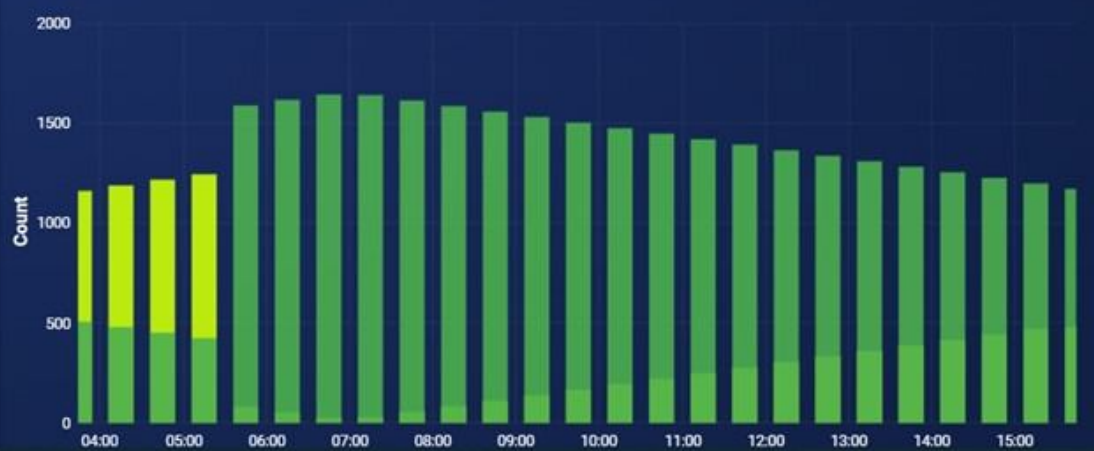
4:19:36

OEE



Storage v/s Dispatch

Realtime - last 12 hours



avg

SPC

Final Angle

Part Name

Specifications

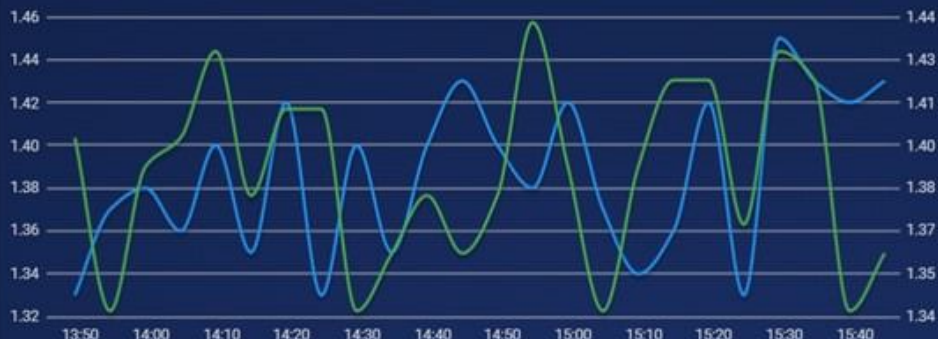
CP

1.43

CPK

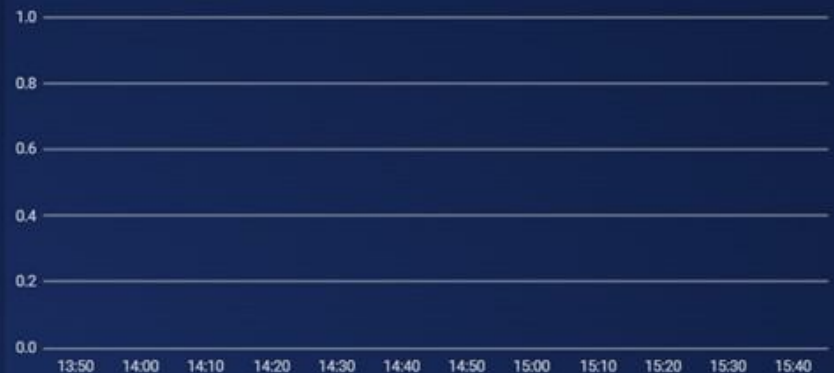
1.36

Process Capability



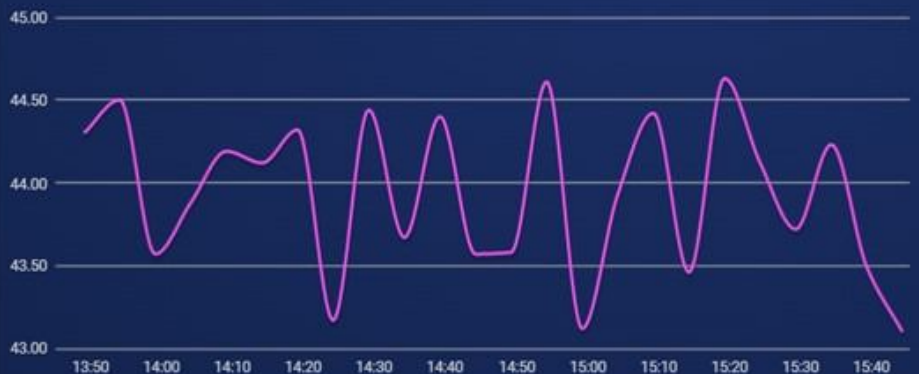
	min	max	avg
Process Capability	1.33	1.45	1.39
Process Capability Index	1.34	1.44	1.39

Histogram



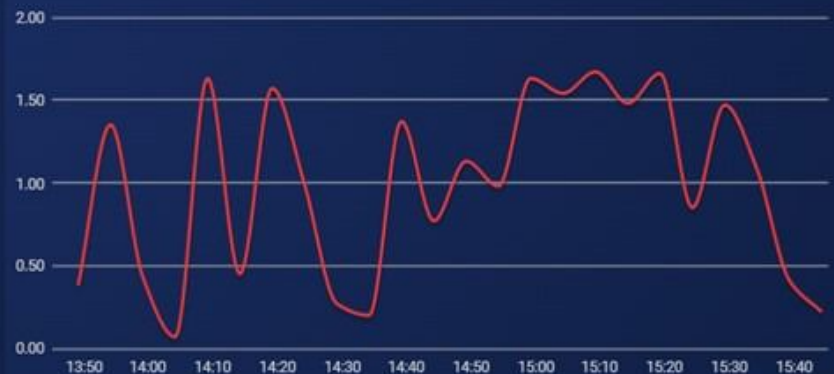
	min	max
Histogram	NaN	NaN

X-Chart



	min	max
Mean	43	45

R-Chart



	min	max
Range	0	2