









# Consulting Automation

## RTS Overall Equipment Effectiveness (RTS OEE) on SAP MII

How do you measure and evaluate plant floor productivity? Do you use data or real time actionable intelligence to identify areas of improvement? Can you consistently run your plant at the highest level of productivity and quality? What tools do you use to ensure continuous improvement?

Overall Equipment Effectiveness (OEE) is a way to monitor and improve the efficiency of your manufacturing process. It's an internationally accepted management tool to measure and evaluate plant floor productivity.

OEE = Availability x Performance x Quality

World Class OEE for discrete manufacturing plants is considered to be 85% or better however, the average OEE score for discrete manufacturing plants is usually 60%.

To assist you fulfilling the promise of OEE, RTS Consulting Inc. has developed the RTS Overall Equipment Effectiveness (RTS OEE) solution on the SAP MII platform. This solution, part of an overall manufacturing execution system, empowers manufacturing companies to improve their processes using real time operational information to minimize causes of inefficiency, ensuring quality, consistency, and productivity measured at the bottom line.

The overall goal of the RTS OEE is to help you reduce or eliminate Major Loss Events. This sophisticated solution not only measures the inefficiencies (or losses), but groups them into three categories to help you analyze the manufacturing process:

#### 1) Downtime Losses are events requiring maintenance

- Machine Breakdowns
- Machine Adjustments/Setups

### 2) Performance Losses are events not requiring maintenance

- Machine Stops
- Machine Reduced Speeds

## 3) Quality Losses are rejects occurring during initial startup & full production runs

- Machine Startup Bad Parts
- -Machine Production Bad Parts



The RTS OEE, seamlessly integrates with the business system and the shop floor infrastructure, providing the following 3 categories of benefits:

## 1) Predictive production management

- Comprehensive visibility to real-time production trending information to address production issues before they occur.
- Actionable intelligence to address production anomalies as they happen, driven by immediate e-mail alerts.
- Ensured order specifications compliance, communicating customized production orders, customers quality information and testing procedures to the shop floor.

## 2) Fully Integrated Solution:

- Multi-plant capability: Can be deployed as a standard solution across all plants and sites, regardless of underlying production and IT systems.
- It allows you to compare plants based on OEE analysis (including cost allocation) to identify "best of breed" manufacturing performers:
  - · Plants / Processes
  - · Production shifts / lines
  - · Departments / assets
  - · Days / week / weekend
- One single system of record for production management, providing robust analytics and consolidating information from all disparate shop floor sources and processes.
- Increased data transparency & accuracy, automatically recording and delivering to the business system, production information from meters, significant assets, Historians, PLC's, DCS's, LIMS.
- Effective OEE analysis via standard and custom reports.
- Enhanced user acceptance and learning, through interactive rolebased dashboards.

## 3) Manufacturing Continuous Improvement:

- Loss reason code system, captured by the operators during the production process and analyzed later during root cause meetings.
  Allowing you to take necessary actions to:
  - Reduce Bottlenecks
  - Implement Machine Operator Training
  - Reduce Machine Setup Time
  - Improve Machine Reliability
  - Maximize Optimal Run Rates and Capacity
  - Eliminate Down Time
  - Optimize/prioritize maintenance tasks

RTS Consulting Inc.: Over 20 years of experience in the manufacturing sector, has fostered a successful organization of professionals assisting companies to achieve Global Manufacturing Excellence.

Since 1992, RTS has transformed into a company providing complete "shop floor to top floor" turnkey solutions. Service offerings range from: manufacturing execution, consulting and implementation, MES to PLC Integration, Energy and Quality Management Information Systems and Plant Floor Data Collection.

Developing a "Road Map to Success" by leveraging documented best practices and flawless implementation, RTS has become the partner of choice among many Fortune 500 clients across several continents: Europe, Africa, and America.

## Manufacturing Execution System (MES) Suite

World Class Operational Excellence

Real-time | Accurate | Global Visibility

| Overall Equipment<br>Effectiveness               | Track and Trace                       | Quality (SPC/SQC)<br>Management<br>Information | Energy Management<br>Information |
|--|---------------------------------------|--|----------------------------------|
| Predictive and<br>Condition Based<br>Maintenance | Paperless<br>Manufacturing            | Returnable<br>Container Tracking               | Labor Performance<br>Tracking    |
| Material and Quality<br>Management               | Plant and Schedule<br>(WIP) Adherence | EHS Performance<br>Management                  | Batch Management<br>Information  |