

OEE Demonstration Tips

Key Points to Cover When Demonstrating Ignition OEE Downtime

In general, the OEE Downtime Module is designed with a great level of flexibility to support a wide variety of production environments. This allows you as an integrator to provide exactly what the customer is asking for. However, it also can make a demo more complicated and care should be taken to understand the customer's requirements and desires in advance and focus on key features they need.

Rehearse

- Have a demo agenda so that the potential customer has an idea of the sections you are going to demo.
- Test just before your demo to make sure the system is working correctly and you have good data to show in analysis and reports.

Analysis

- **Show Enterprise OEE Analysis** - Describe how the OEE Downtime Module has the built-in capability for different production facilities that are located around the world to push analysis data to a enterprise server. This allows analysis across all production facilities to be done.
- **Show Site OEE Analysis** - The analysis data can be broken in many different ways such as breaking it down by site, area, etc.
- **Show Area OEE Analysis** - This is just continuing how analysis can be broken down.
- **Show Line OEE Analysis** - This shows that details can also be analyzed.
- **Show TEEP Analysis** - While OEE is excellent at tracking efficiencies during production, it does not capture non-production time inefficiencies. Or in other words, asset utilization.
- **Demonstrate Impromptu Analysis** - Some users want to have the ability to freely look for correlations that affect efficiencies.
- Include additional factors so the potential customer can see how they can include other user-defined factors that may affect their efficiencies.

For Customers That Are Interested in Scheduling

- **Show Scheduling** - Include how new schedule entries estimate the finish time based on the scheduling rate (defined in the product code) and workday routines (breaks, meals, etc.).

Typically, scheduling is done in the MES system. However, schedule entries are just in a database table and can come from external sources via an intermediary table, file import or web services. They can even be easily created using script if unique scheduling is required such as scheduling a week at a time.

Scheduling is optional.

- **Show Work Orders** - Work order entries can be done in the MES system but typically are read from another system.

Work orders are just in a database table and can come from external sources via an intermediary table, file import or web services. Work orders must be tied to product codes.

Work orders are optional.

- **Show Product Codes** - Product codes are typically maintained within the MES system.

Optionally, work orders are just in a database table and can come from external sources via an intermediary table, file import or web services.

Product codes are required but if the customer always runs the same product, just a fixed single product code can be set up.

- or -

Just show scheduling. This shows what the OEE Downtime Module is capable of and how it ties into scheduling.

Operator Screens

- **Does the Potential Customer Have PLCs or Other Controllers?** - Show an operator screen where automatic downtime reasons are detected but the operator can provide additional downtime details.

The automatically detected downtime reason is recorded separately from the operator selected downtime reason and both can be accessed in analysis.

There is a great level of control of which downtime reasons are available for selection by the operator.

Short stops are supported.

- or -

Show a completely manual downtime screen.

- **Product Run** - Production runs can be started and stopped in one of the following methods:

- Automatically based on the schedule start and stop times.
- By a user selecting a schedule entry in the future.
- By a user selecting the next schedule entry.
- By a user selecting a production code.
- Through script that is usually used when the production run is controlled by another system such as a PLC, external database, etc.

- **Show Runtime Production Charts** - These are similar to the analysis charts, except they are updated live by default.

Reports

- Reports are just taking analysis data and arranging the report using the Ignition report designer.

Designers

- **Building a Sample Project** - Build a sample downtime or OEE analysis screen that allows the user to select the line and display the data in a chart and table.
- **What Type is the Potential Customer?** - If they are technical such as IT or maintenance, demonstrate the following.
 - Show tags and details that are available under the hood of the OEE Downtime Module.
 - Show production model configurations.
 - Show adding new production items and that all MES modules share the production model.
 - Show how additional factors are configured.
 - Show how production counters are configured. The OEE Downtime Module uses a simple and proven method of NOT resetting the counts at the beginning of production runs. Instead, a start of run count is recorded and the OEE Downtime Module calculates the true production count. Also, counters are free running and can rollover. There is no need to implement cascading counters in the PLC. Production and waste counts can also be updated after the production run.
 - Show how machine states and downtime reasons are configured. Describe how line downtime is treated separately from cell (machine) downtime.
 - Describe the three different downtime detection methods built into the OEE Downtime Module.