

Introducing OEE+3

Part of the manuFact from

The logo for FORTECH, featuring the word 'FORTECH' in a bold, blue, sans-serif font with a 3D effect and a blue shadow.

What is OEE and Why is it Important?

OEE is the Overall Equipment Effectiveness on a manufacturing or packing line at a plant.

OEE is the *Gold Standard* of measurement in the industry.

OEE consists of three important measurements.

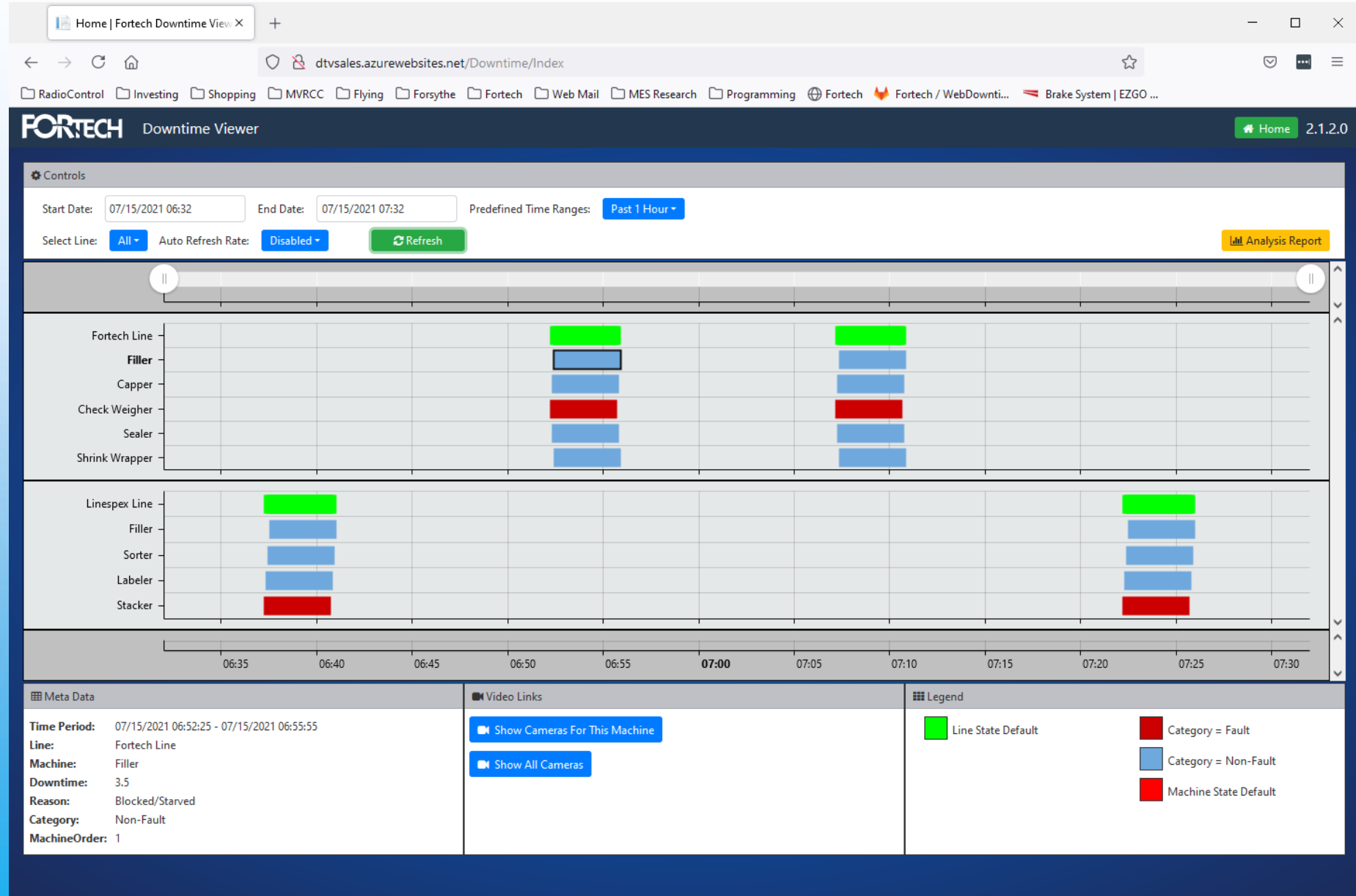
Overall Equipment Effectiveness

- 1) Availability: affected by unplanned stops
- 2) Performance: affected by running at a *rate* lower than your target
- 3) Quality: affected by producing bad product

Overall Equipment Effectiveness

When You Multiply Availability x Performance x Quality
a true equipment effectiveness calculation can be developed.

Easy-to-use graphical interface shows unplanned stops for all lines and equipment.



Home | Fortech Downtime View X Historian: Tags | Fortech Downtime X +

webdtv/DTV/Config/Historian/Tags

RadioControl Investing Shopping MVRCC Flying Forsythe Fortech Web Mail MES Research Programming Fortech Fortech / WebDownti... Brake System | EZGO ...

FORTECH Downtime Viewer Configuration Config Home Logout 3.0.1.0

Configuration
Video
Equipment
Production
Historian
Tags
Event Configurations
Remote Connection
OPC Servers
Prod Configurations
Data Source
Color Criteria
Admin

Tags

+ Add Tag

Tag Name	OPC Server ID	Deadband Value	Tag Type	Delete
C			OPC	X
C			OPC	X

Add Tag

Tag Name*

Tag Type* OPC Historian

OPC Server ID*

Tag Item*

Deadband Value*

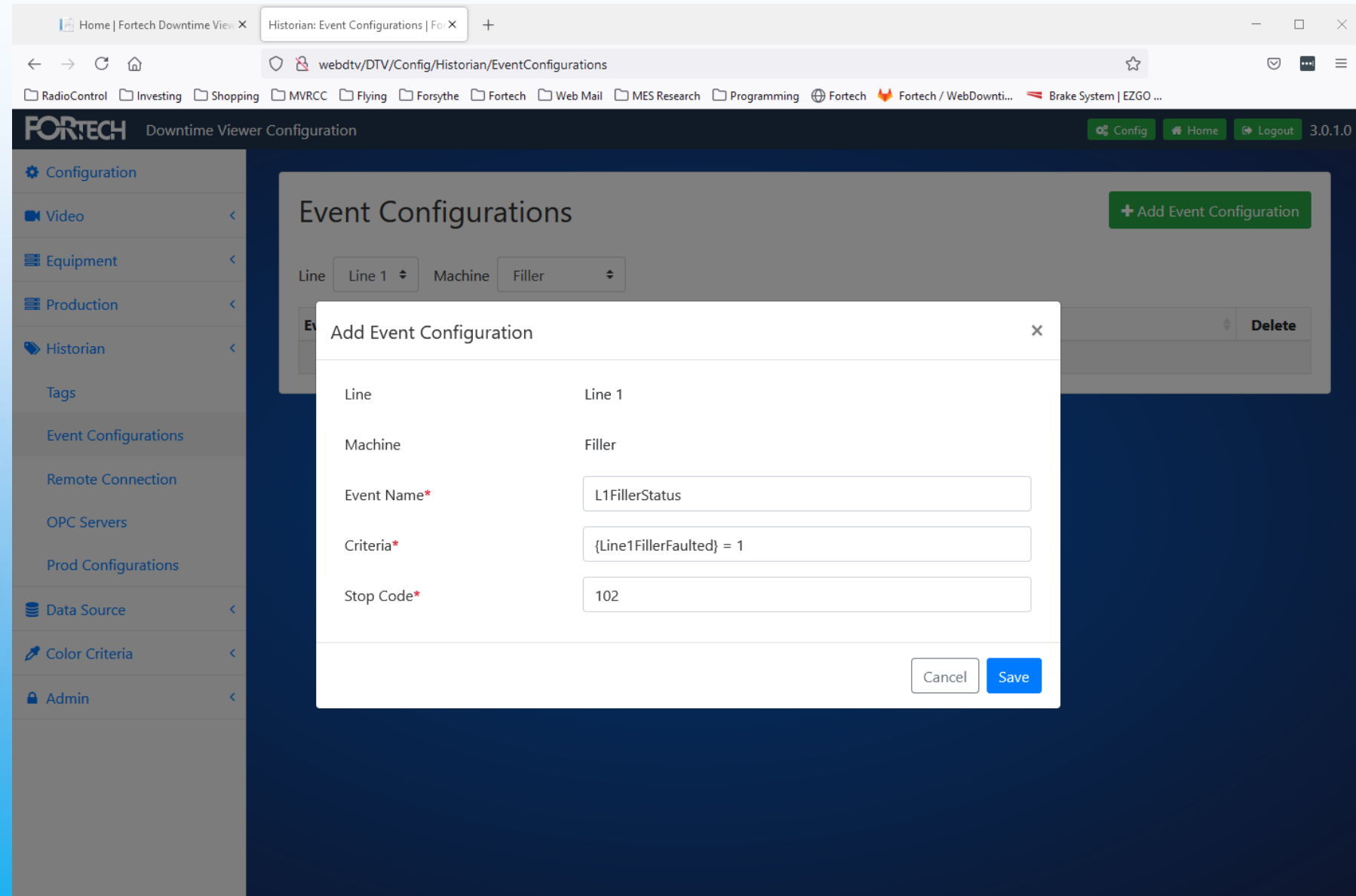
Cancel Save

Setup to collect downtimes is as easy as defining a PLC tag to monitor.

Create a downtime event based on the PLC tag.

When the criteria is true, a downtime is started.

When false, the downtime ends.



The screenshot displays the Fortech Downtime Viewer Configuration web application. The browser address bar shows the URL `webdtv/DTV/Config/Historian/EventConfigurations`. The application header includes the Fortech logo, the text "Downtime Viewer Configuration", and navigation links for "Config", "Home", and "Logout", along with the version number "3.0.1.0".

The main interface features a sidebar menu with the following items: Configuration, Video, Equipment, Production, Historian, Tags, Event Configurations (highlighted), Remote Connection, OPC Servers, Prod Configurations, Data Source, Color Criteria, and Admin. The "Event Configurations" section is active, showing a table with columns for "Line" and "Machine". The current selection is "Line 1" and "Filler".

An "Add Event Configuration" dialog box is open in the foreground, containing the following fields:

- Line: Line 1
- Machine: Filler
- Event Name*: L1FillerStatus
- Criteria*: `{Line1FillerFaulted} = 1`
- Stop Code*: 102

The dialog box includes "Cancel" and "Save" buttons at the bottom right.

Home | Fortech Downtime View | Historian: Tags | Fortech Downtime

webdtv/DTV/Config/Historian/Tags

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FORTECH Downtime Viewer Configuration Config Home Logout 3.0.1.0

Tags + Add Tag

Tag Name	OPC Server ID	Deadband Value	Tag Type	Delete
C			OPC	✕
C			OPC	✕

Edit Tag

Tag Name*

Tag Type* OPC Historian

OPC Server ID*

Tag Item*

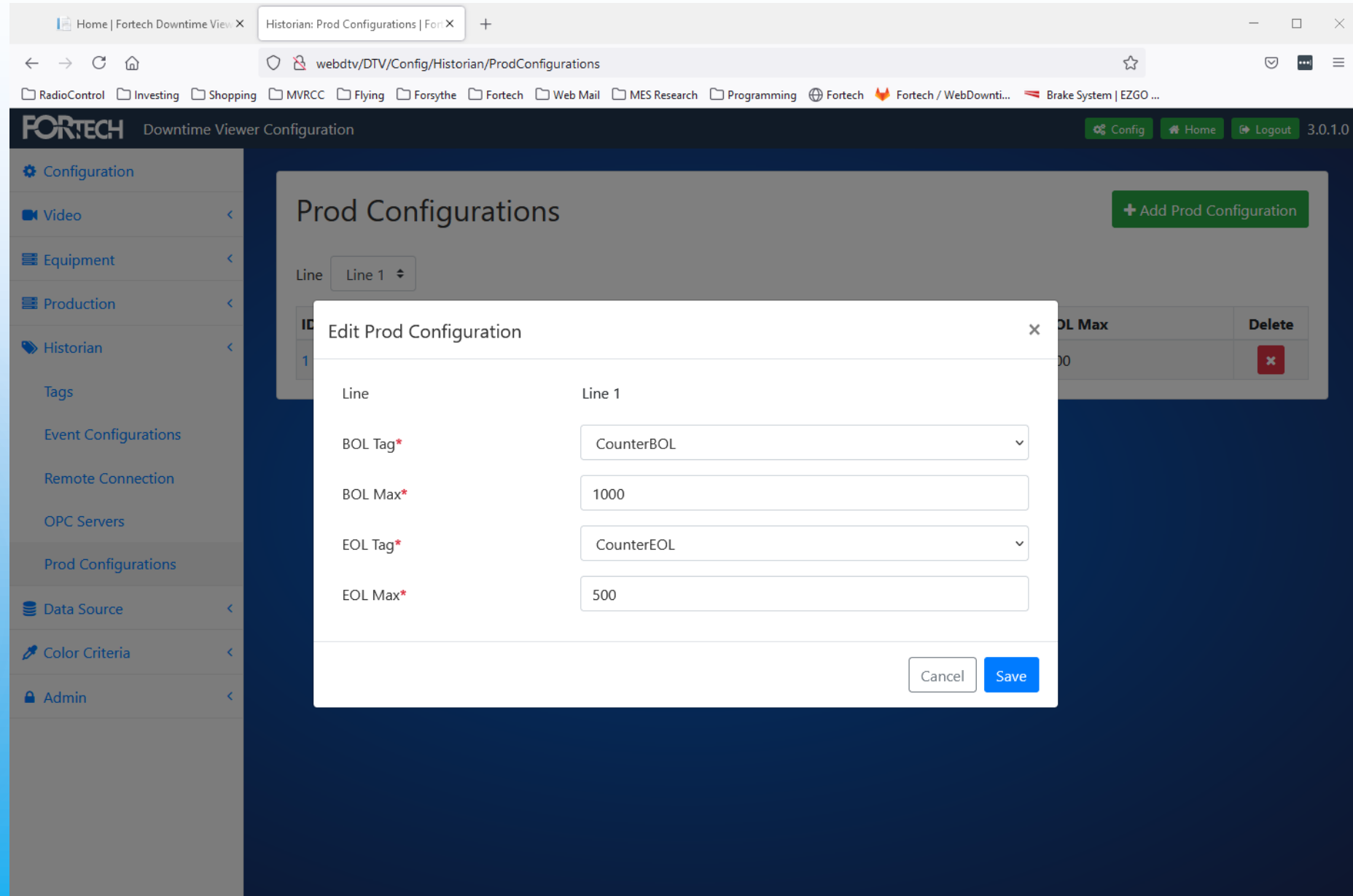
Deadband Value*

Cancel Save

Setup to collect production is as easy as defining a PLC tag to monitor for the beginning of the line (BOL) and one for the end (EOL).

Configure a production event for each line specifying the tag and max value for both the beginning and end of line.

Note: these tags are accumulators that cycle back around to 1 once they hit their max value.



The screenshot shows a web browser window displaying the Fortech Downtime Viewer Configuration interface. The browser address bar shows the URL `webdtv/DTV/Config/Historian/ProdConfigurations`. The interface includes a sidebar with navigation options: Configuration, Video, Equipment, Production, Historian, Tags, Event Configurations, Remote Connection, OPC Servers, Prod Configurations, Data Source, Color Criteria, and Admin. The main content area is titled "Prod Configurations" and features a dropdown menu for "Line" set to "Line 1". A modal dialog box titled "Edit Prod Configuration" is open, showing the following fields:

Field	Value
Line	Line 1
BOL Tag*	CounterBOL
BOL Max*	1000
EOL Tag*	CounterEOL
EOL Max*	500

At the bottom of the dialog box, there are "Cancel" and "Save" buttons.

The screenshot shows the Fortech Downtime Viewer Configuration interface. The main window is titled "Products" and contains a dialog box for "Edit Product Configuration". The dialog box has the following fields:

- Product Code*: 87654321
- Description*: Widgets
- Size*: 10
- Units*: Widget

Below these fields is a table with the following data:

Line	Rate Per Minute	BOL Multiplier	EOL Multiplier	Delete
Line 1	200	1	2	

At the bottom of the dialog box, there are input fields for "Select Line", "Ideal Rate", "BOL Multiplier", and "EOL Multiplier", along with a green "+" button. The "Cancel" and "Save" buttons are located at the bottom right of the dialog box.

Create your products, specify the line(s) on which they run, the target rate and a multiplier if units are different between beginning and end of line.

Using the “Scheduled Down” and “Excluded Time” designators, you can control how constraint stops are handled with respect to OEE calculations.

Reasons

Line: All Machine: All

Stop Code	Category	Reason	Scheduled Down
999998	Planned Down	Idle	Yes
999999	Planned Down	Changeover	Yes

Edit Reason ✕

Stop Code*

Category

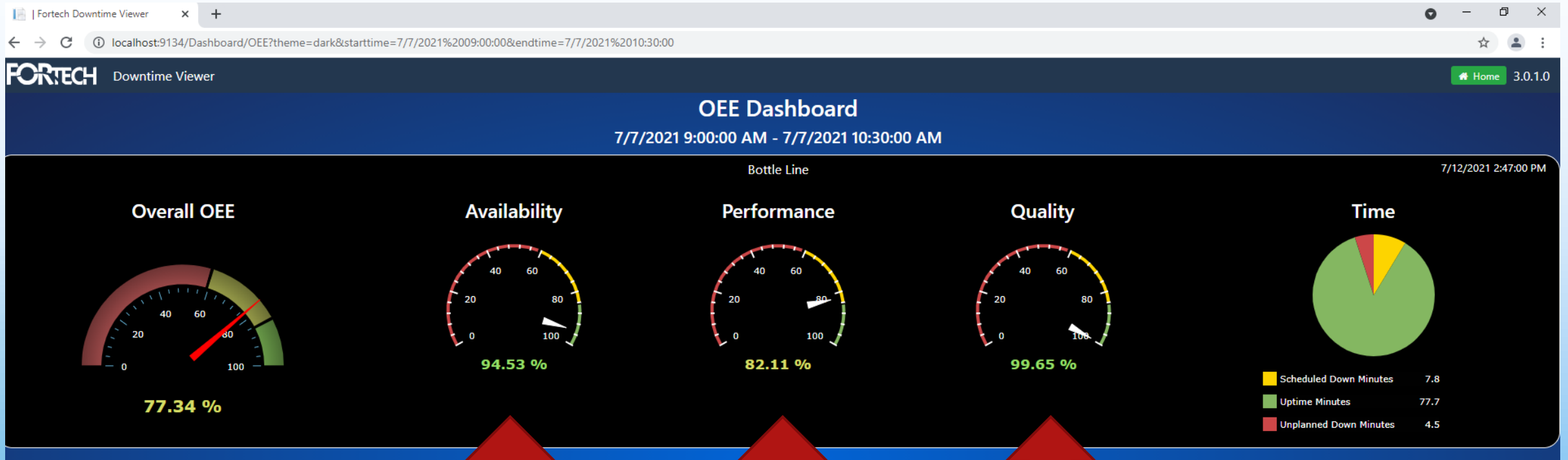
Reason

Line

Machine

Scheduled Down

Excluded Time (Ignored for OEE Purposes)

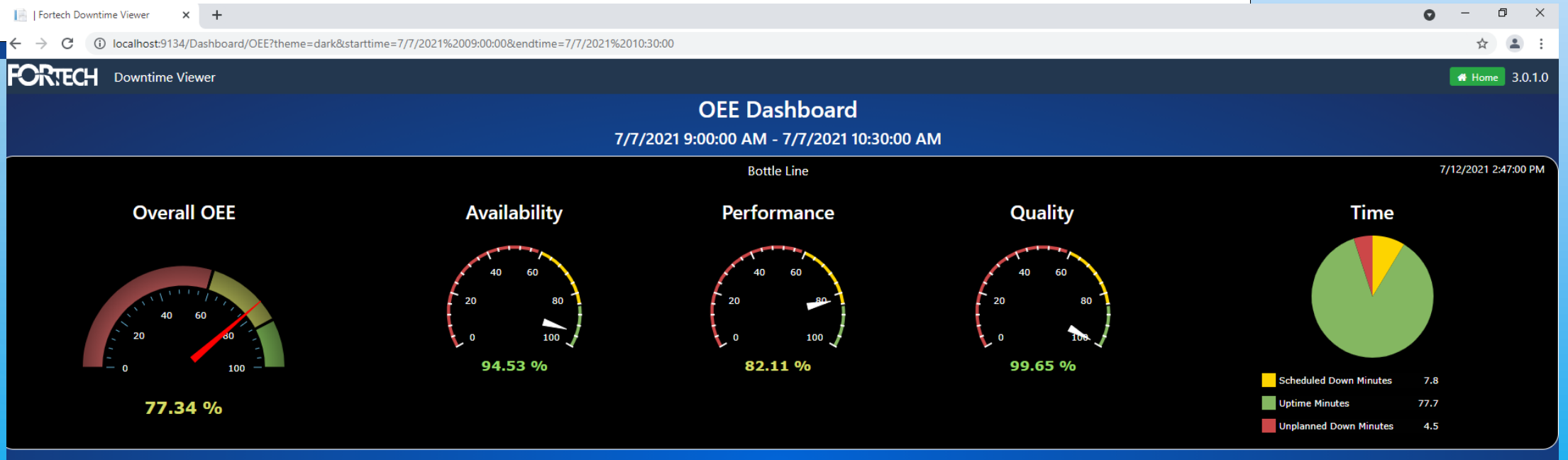
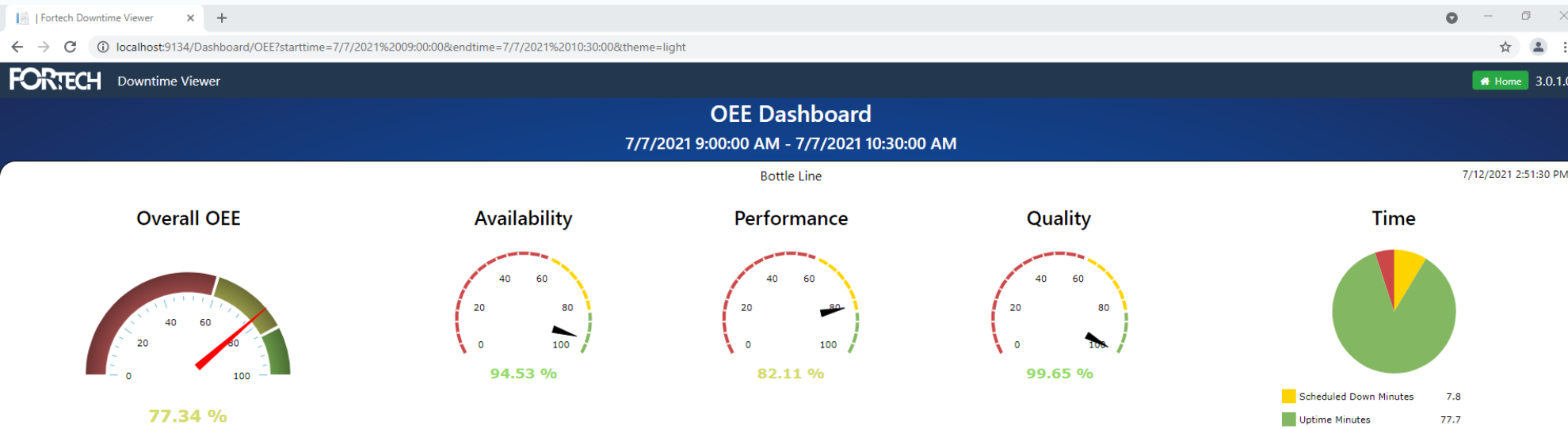


Comes from unplanned stops

Comes from beginning of line speed compared to target speed

Comes from comparison of beginning and end of line counts

OEE Dashboard is available in light or dark styling





OEE Dashboard can show all lines in the plant at one time

Use the Analysis Report to determine the best place to focus corrective actions from unplanned stops.

Home | Fortech Downtime View X Production: Products | Fortech Dow X +

dtvsales.azurewebsites.net/Downtime/Index

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FORTECH Downtime Viewer Home 2.1.2.0

Controls

Start Date: 07/15/2024

Select Line: All

Analysis Report

Group by: Machine

Search:

Machine	# Stops	Minutes Down	% Efficiency
Filler	6	14	76.67
Capper	2	7	88.33
Check Weigher	2	7	88.33
Labeler	2	7	88.33
Sealer	2	7	88.33

Minutes Down

Time Period: 07/15/2024

Line: Fortech

Machine: Filler

Downtime: 3.5

Reason: Block

Category: Non-Fault

MachineOrder: 1

OEE+3

The “+” sign is for our state-of-the-art camera system and is an optional item.

The “3” represents the three critical measurements of Overall Equipment Effectiveness.

For Additional Information Contact Us At:
solutions@fortech-usa.com

Thank You!