

OEE Audit Release Note

Version 2.1

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What's New in 2.1

- Dashboard – cosmetic changes and loading improvements
- Trend Analysis Charts – Group by date and set target value
- Annotation – add on-screen notes to your graphs
- Display Average Duration on the trend graphs
- Availability – Loss Events – added hierarchical grouping
- Availability – Loss Events – Shift - updated
- Availability – Loss Events – Parts - NEW
- Shift Data & Job Data Reporting – added 4 new fields
- User Defined Fields – calculate Week and Quarter
- All Shift Production Summary – 1-page At-A-Glance – added ability to view by shift, by line



OEE Audit Dashboard

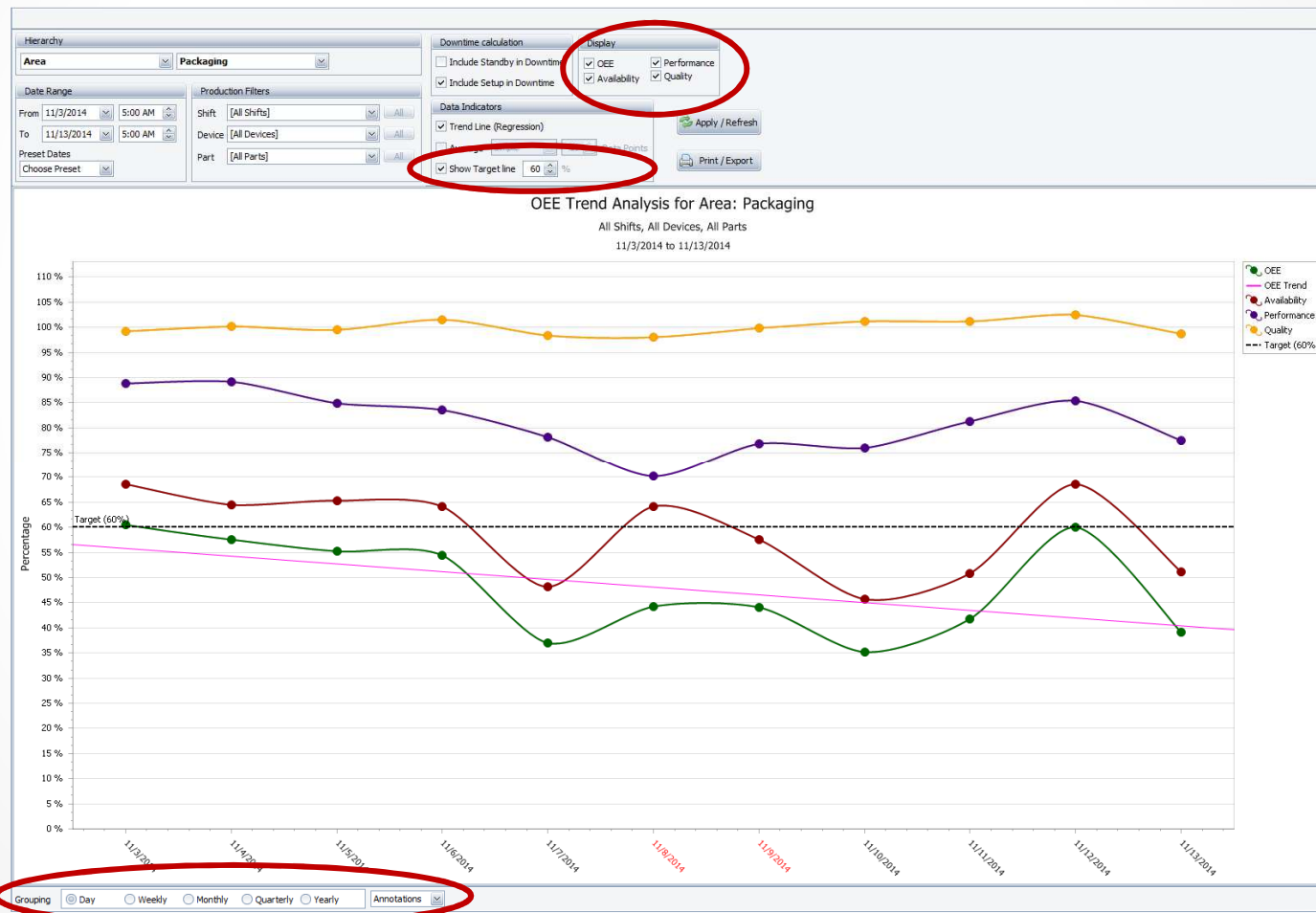


The **OEE Audit Dashboard** is presented when you first open OEE Audit.

The default display is for the last 5 days with the date slider providing you with the ability to view the last 30 days. We also made load-time improvements by speeding up the data queries and displaying what is being loaded.

OEE Trends

- The **OEE Trends** graph now displays all or a combination of the components of OEE.
- You can also include a Target line and select your target value.
- Depending upon the date range selected, you can display by Day, Week, Month, Quarter or Year.

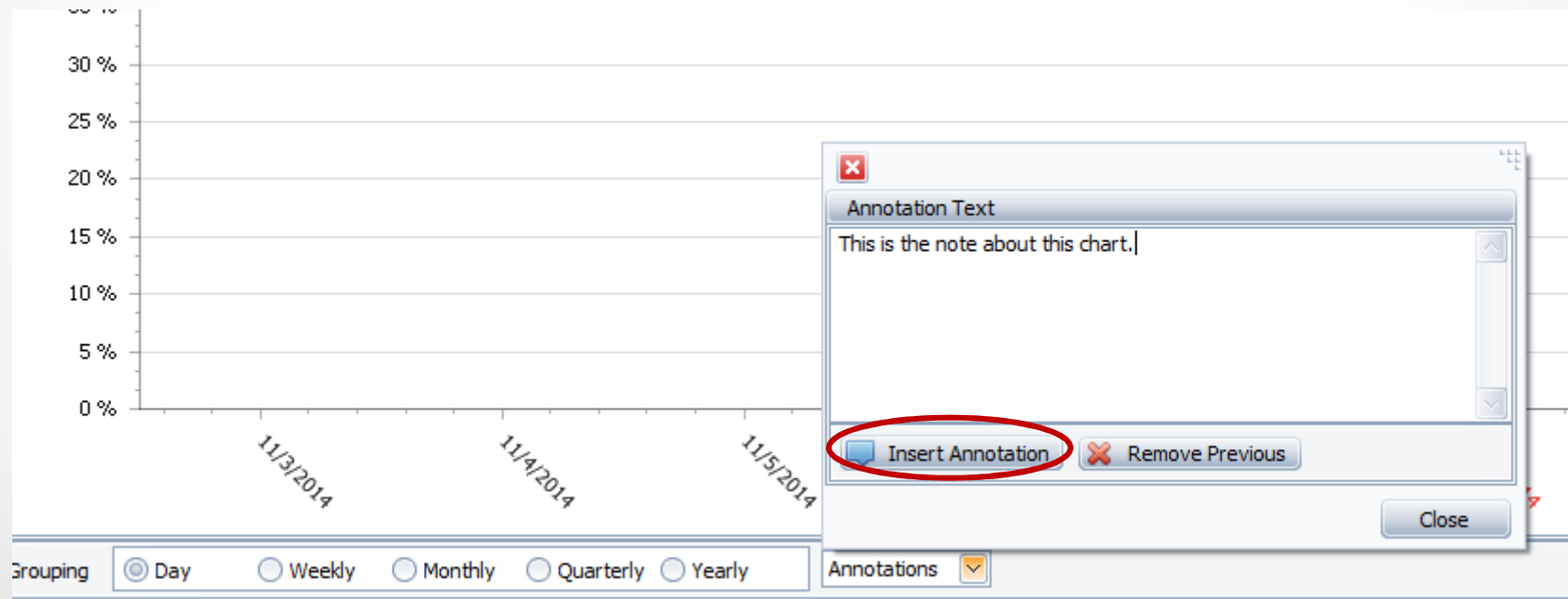


Annotate your charts!

All charts and graphs now have the ability to let you insert notes on the chart. They stay on the chart until you close the application. They do not get saved with the chart.

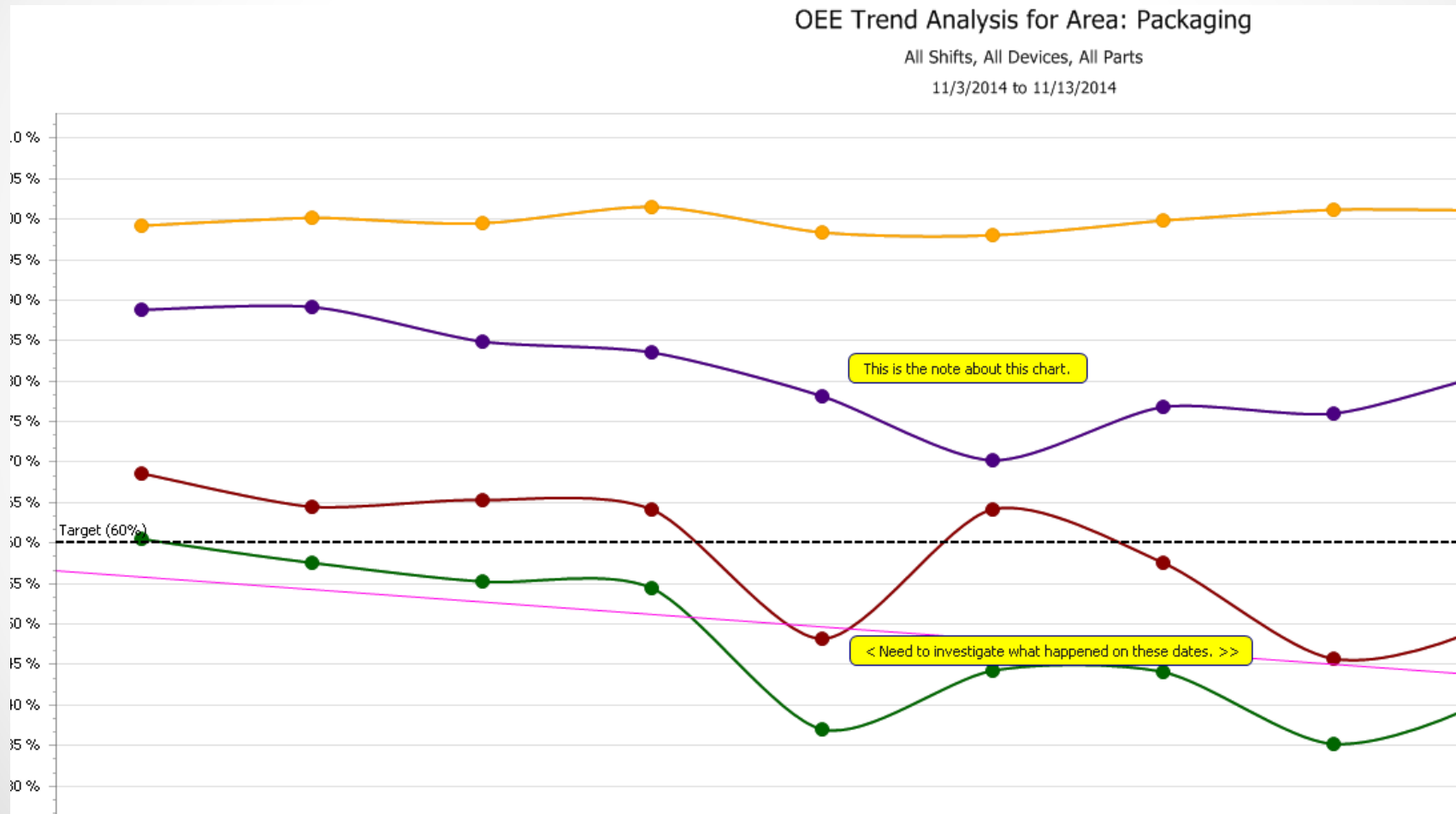
Enter the text and click the **Insert Annotation** button.

The **Remove Previous** will remove the last one that you inserted.



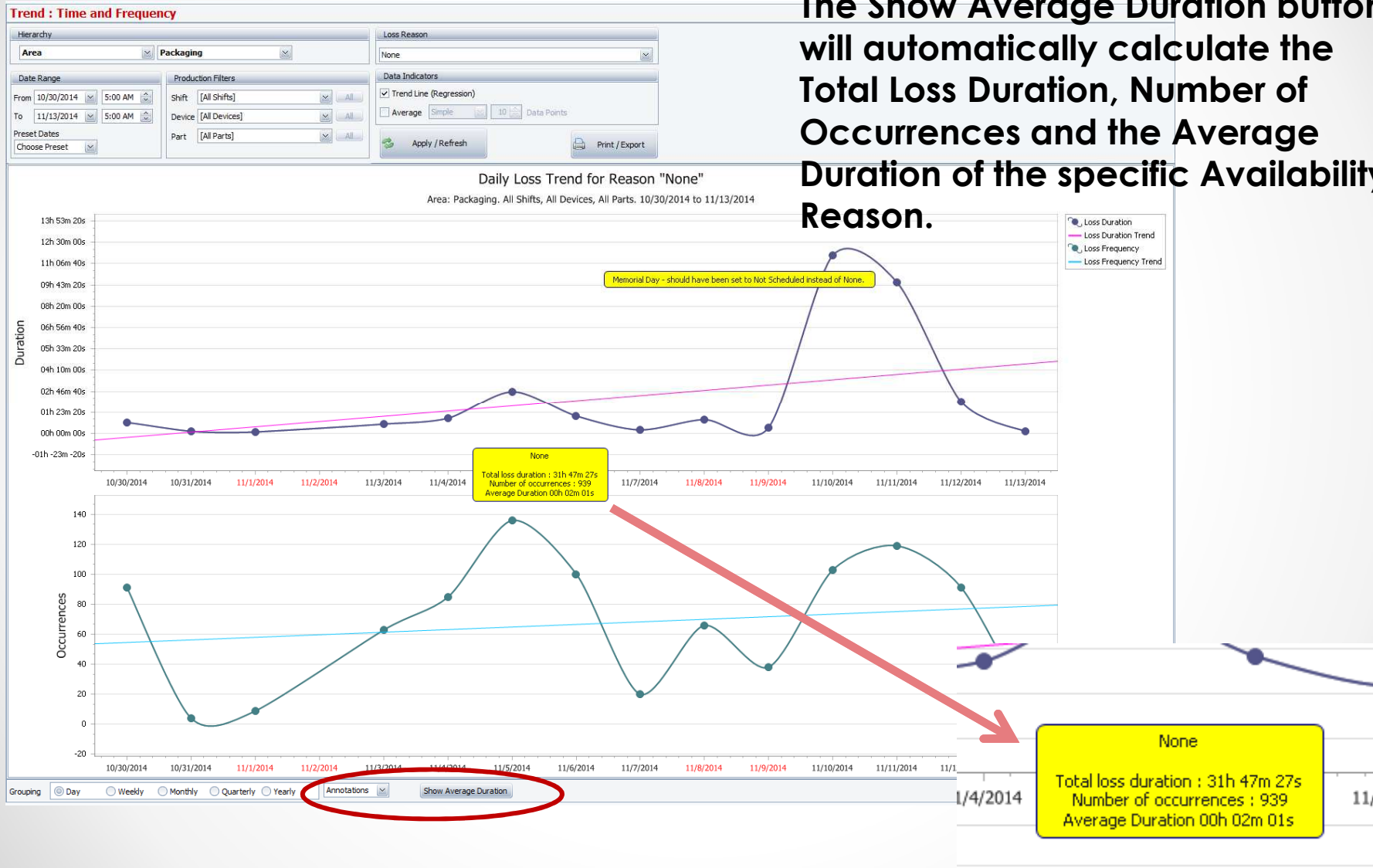
Annotate your charts!

You can then move the Annotation anywhere on the chart.
You can add as many Annotations as you want.



Time and Frequency Trend Graph – Display Average Duration

The Show Average Duration button will automatically calculate the Total Loss Duration, Number of Occurrences and the Average Duration of the specific Availability Reason.



Availability Loss – Loss Events - Hierarchy

Availability Loss Events (Shift)

Hierarchy

Location [v] 4040 [v]

Date Range

From 10/27/2014 [v] 6:00 AM [v]

To 12/1/2014 [v] 6:00 AM [v]

Preset Dates

Choose Preset [v]

Production Filters

Shift [All Shifts] [v] [All]

Device Roll Form Line 1 [v] [All]

Include

Run Time

Down Time

Setup Time

Standby Time

Apply / Refresh

Availability Loss Events (Part)

Hierarchy

Location [v] 4040 [v]

Date Range

From 10/27/2014 [v] 6:00 AM [v]

To 12/1/2014 [v] 6:00 AM [v]

Preset Dates

Choose Preset [v]

Production Filters

Device [All Devices] [v] [All]

Part [All Parts] [v] [All]

Include

Run Time

Down Time

Setup Time

Standby Time

You can now select use the Hierarchy selection to further filter the data.

Availability - Loss Events - Shift

Availability

- Graphical Analysis
- Tabular Analysis
- Loss Events - Shift**
- Loss Events - Parts
- State Comparison

Availability Loss Events (Shift)

Hierarchy

Location: 4040

Date Range: From 10/27/2014 6:00 AM To 12/1/2014 6:00 AM

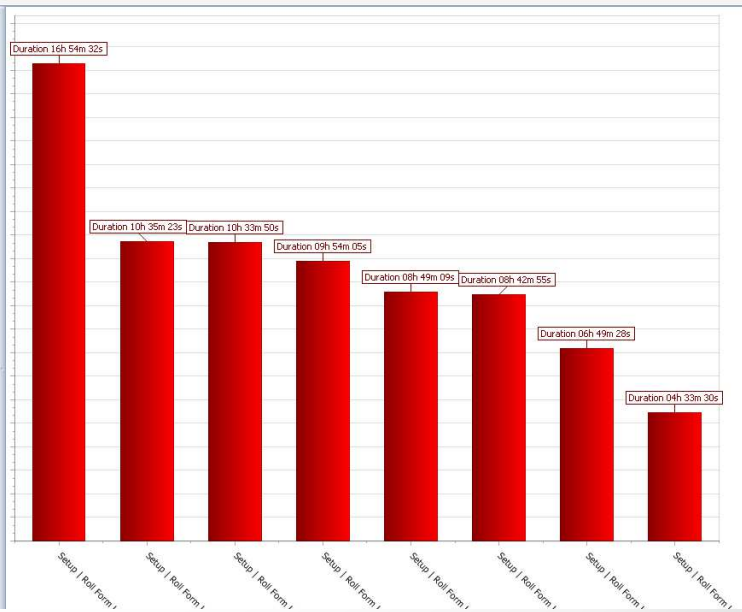
Preset Dates: Choose Preset

Production Filters: Shift [All Shifts] Device [All Devices]

Include:

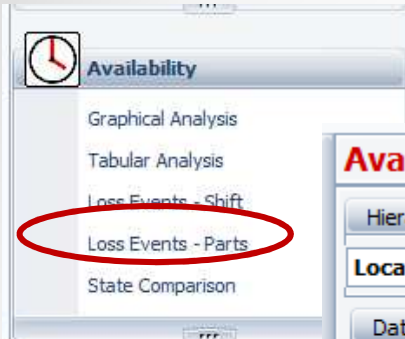
- Run Time
- Down Time
- Setup Time
- Standby Time

State	De...	Reason	Shift	Grand Total Duration	Reason Count
Setup	Roll F...	50-Setup	1st Shift	06h 49m 28s	54
			2nd Shift	10h 35m 23s	34
			3rd Shift	09h 54m 05s	42
			4th Shift	16h 54m 32s	34
		50-Setup Total		44h 13m 28s	164
		51-Coil Changeover	1st Shift	04h 33m 30s	34
			2nd Shift	10h 33m 50s	42
			3rd Shift	08h 42m 55s	45
			4th Shift	08h 49m 09s	39
		51-Coil Changeover Total		32h 39m 24s	160
		Roll Form Line 1 Total		76h 52m 52s	324



View specific loss events by Shift.

Availability - Loss Events - Part



Availability Loss Events (Shift)

Hierarchy

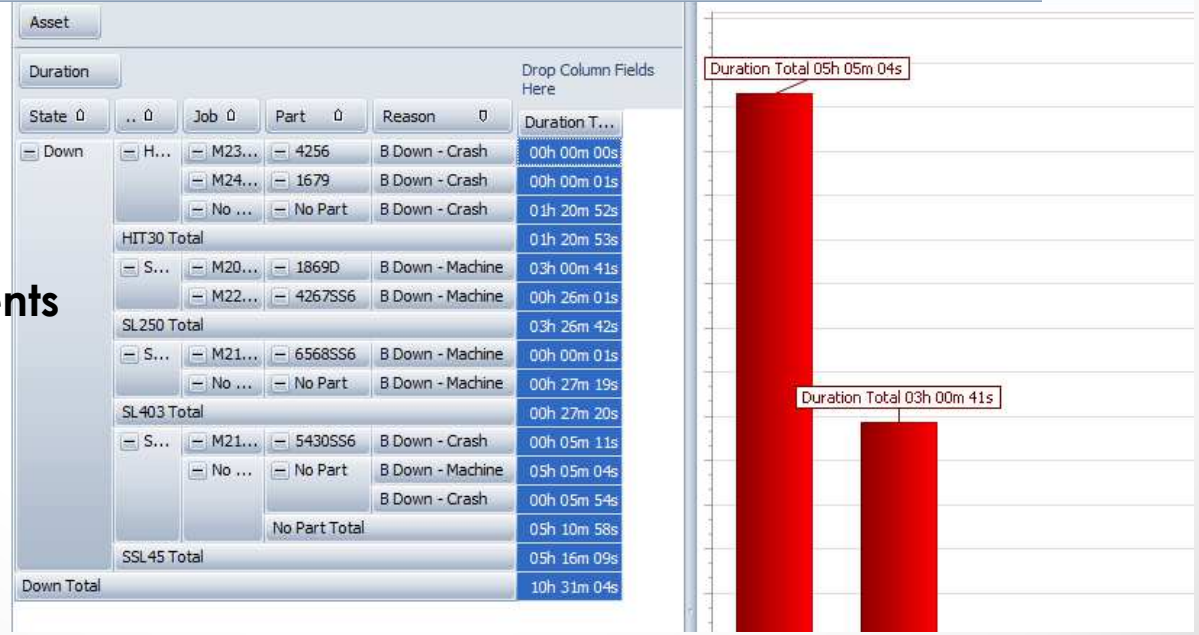
Location: 4040

Date Range: From 10/27/2014 6:00 AM To 12/1/2014 6:00 AM

Production Filters: Shift [All Shifts] Device [All Devices]

Include: Run Time Down Time Setup Time Standby Time

View specific loss events by Job and/or Part.



Shift Data & Job Data – 4 new fields

In both the Shift Data – Shift Analysis and Job Data – Job Comparison sections, we have added 4 new data elements.

Percent Down, Percent Run, Percent Setup and Percent Standby.

PivotGrid Field List

Drag Items to the PivotGrid

- Avg. Cycle Time
- Avg. Rate Total
- Down Time
- Efficiency
- Goal Count
- Good Count
- Ideal Cycle Time
- Part
- Percent Down**
- Percent Run**
- Percent Setup**
- Percent Standby**
- Reject Count
- Run Time
- Setup Time

Drag fields between areas below:

Filter Area

Column Area

Row Area

Data Area

- Device
- Shift
- Availability
- OEE
- Performance

Defer Layout Update

Update

Shift Analysis

Hierarchy: Area: Packaging

Date Range: From 11/3/2014 5:00 AM To 11/13/2014 5:00 AM

Production Filters: Shift [All Shifts] Device [All Devices]

Downtime calculation: Include Standby in Downtime Include Setup in Downtime

Apply / Refresh

Print / Export

Tabular Analysis

Select multiple values to chart information

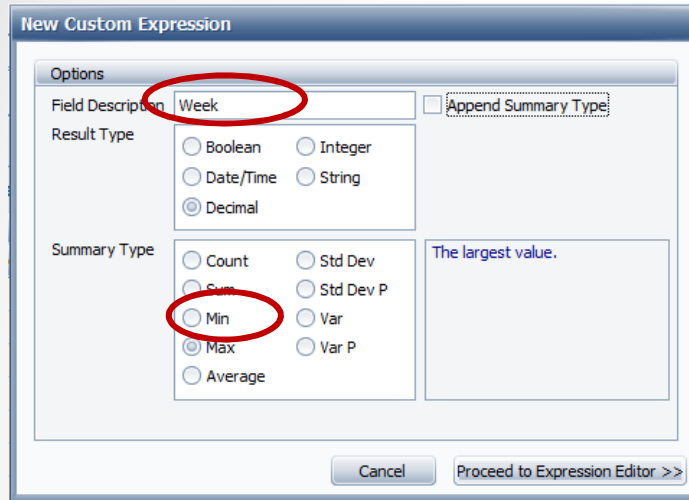
Drop Filter Fields Here

Drop Column Fields Here

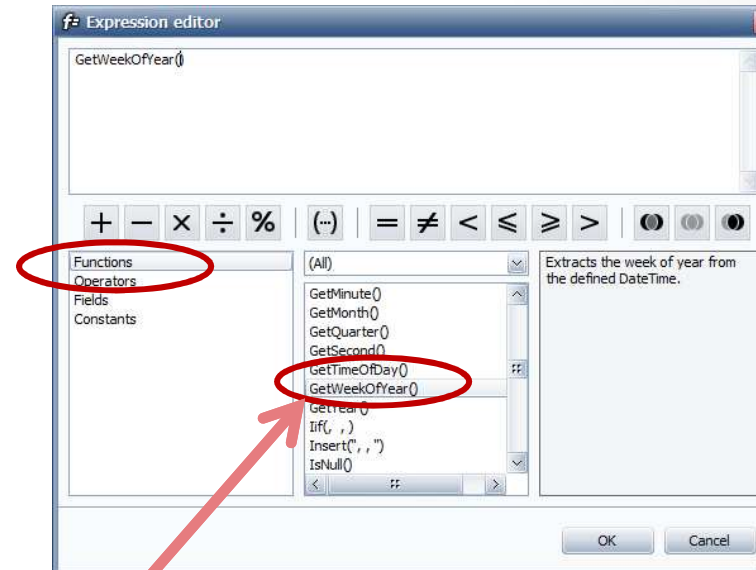
Device	Shift	Start Time	End Time	Percent Run	Percent Down	Percent Setup	Percent Standby
Grand Total							
Line 2	Shift 1	11/3/2014 5:00:00 AM	11/3/2014 3:00:01 PM	63.4	36.6	0.0	0.0
		11/4/2014 5:00:00 AM	11/4/2014 3:00:01 PM	50.8	39.2	10.0	0.0
		11/5/2014 5:00:00 AM	11/5/2014 3:00:01 PM	70.8	22.0	7.2	0.0
		11/6/2014 5:00:00 AM	11/6/2014 3:00:01 PM	29.9	5.8	64.3	0.0
		11/10/2014 5:00:00 AM	11/10/2014 3:00:01 PM	38.3	33.1	28.6	0.0
		11/11/2014 5:00:00 AM	11/11/2014 3:00:01 PM	16.4	65.2	18.4	0.0
		11/12/2014 5:00:00 AM	11/12/2014 3:00:01 PM	47.8	29.8	22.4	0.0
	Shift 1 Total			45.3	33.1	21.5	0.0
	Shift 2	11/3/2014 3:00:01 PM	11/4/2014 1:00:01 AM	98.9	1.1	0.0	0.0
		11/10/2014 3:00:01 PM	11/11/2014 1:00:01 AM	0.0	100.0	0.0	0.0
		11/11/2014 3:00:01 PM	11/12/2014 1:00:01 AM	50.5	49.5	0.0	0.0
		11/12/2014 3:00:01 PM	11/13/2014 1:00:01 AM	77.4	14.4	8.3	0.0
	Shift 2 Total			56.7	41.3	2.1	0.0
	Shift 3	11/11/2014 1:00:01 AM	11/11/2014 5:00:00 AM	0.0	100.0	0.0	0.0
Line 2 Total				45.3	41.4	13.3	0.0

User Defined – Week & Quarter

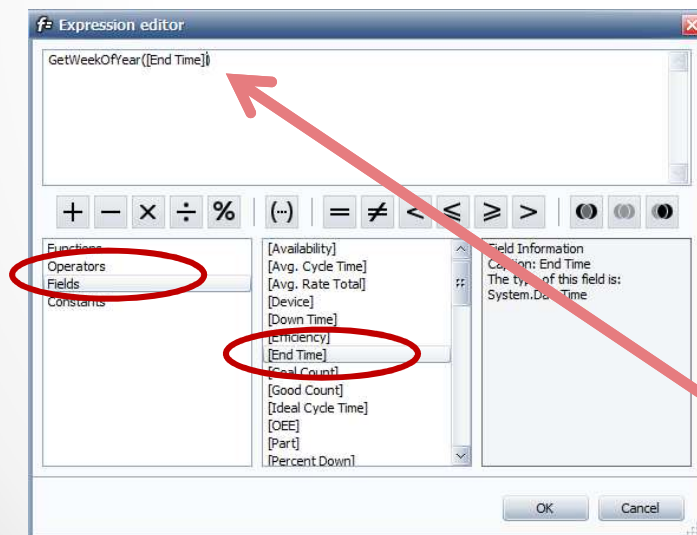
Let's say that we want a shift report by week. Click on Define New Fields.



<< Enter a description and select Summary Type of Max.

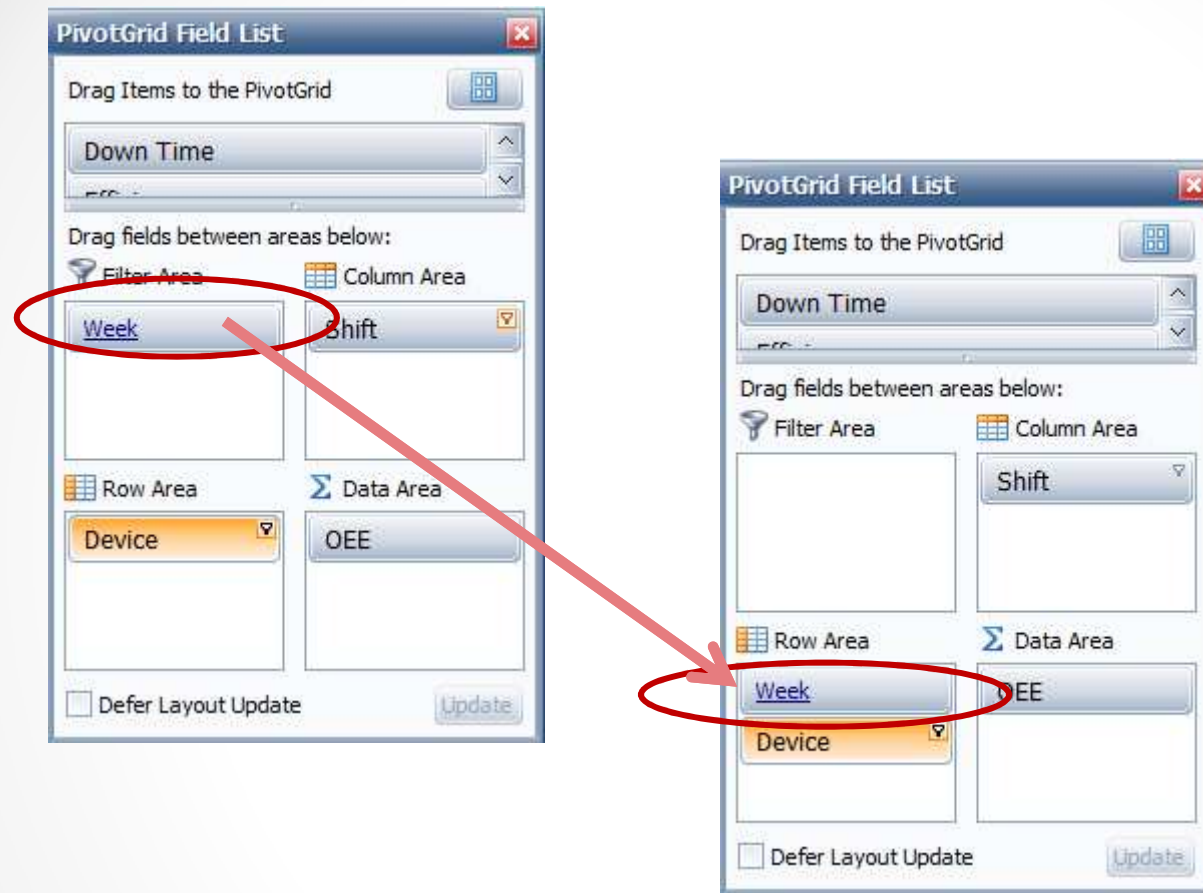


In the Functions section, double-click on GetWeekOfYear() or GetQuarter().



<< In the Fields section, double click on either [End Time] or [Start Time] depending upon how your production calendar starts. Click OK.

User Defined – Week or Quarter



Drag your new field down to the Row Area.....

Using the Week data element ~

The screenshot shows a software interface for 'Shift Analysis'. It includes a hierarchy dropdown set to 'Packaging', a date range from 7/1/2014 to 9/30/2014, and production filters for 'All Shifts' and 'All Devices'. The main data table is titled 'Grid Analysis' and shows OEE values for weeks 27 through 34, broken down by line (2, 3, 4) and shift (1, 2, 3), along with a Grand Total column. A red circle highlights the 'Week' column header in the table.

Week	Device	Shift 1	Shift 2	Shift 3	Grand Total
- 27	Line 2	37.7			37.7
	Line 3	40.2	44.4		41.9
	Line 4	47.3	49.8	27.9	44.3
27 Total		41.7	47.4	27.9	42.2
- 28	Line 2	57.7	45.7	36.2	45.8
	Line 3	53.7	39.2	31.2	41.7
	Line 4	49.5	39.1	35.3	40.9
28 Total		52.6	39.4	33.8	41.8
- 29	Line 2	27.5	37.5		28.7
	Line 3	49.2	39.2	37.3	43.0
	Line 4	55.7	64.3	59.0	59.9
29 Total		44.9	50.5	48.8	47.6
- 30	Line 2	39.2	20.1		33.9
	Line 3	53.8	53.5	49.8	53.0
	Line 4	53.3	60.9	50.6	55.7
30 Total		49.8	51.8	50.0	50.5
- 31	Line 2	49.1			49.1
	Line 3	59.5	54.4	28.5	51.3
	Line 4	65.0	41.1	58.6	52.4
31 Total		58.0	47.4	43.3	51.3
- 32	Line 2	54.1			54.1
	Line 3	42.1	44.8	40.9	42.9
	Line 4	54.8	49.0	53.7	52.3
32 Total		50.0	46.8	47.4	48.2
- 33	Line 3	46.5	58.3	49.3	51.7
	Line 4	72.1	55.2	51.7	62.3
33 Total		59.2	56.8	50.3	56.8
- 34	Line 2	43.6			43.6
	Line 3	52.8	43.4	55.5	49.9
	Line 4	60.9	54.3	62.6	58.4

We now see the OEE for each week of the last quarter – by line – by shift.

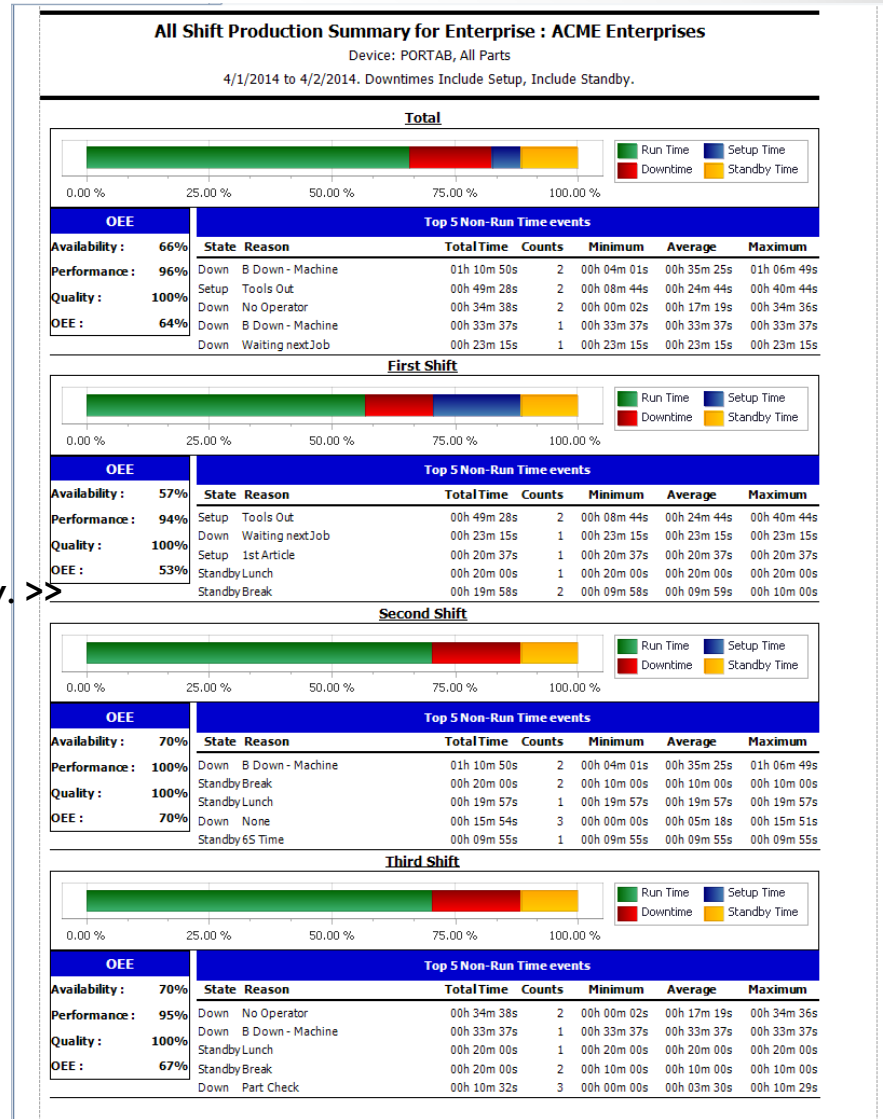
Reports – All Shift Production Summary

I like to call this report – **Line At-A-Glance**.

This report shows you on 1-page how the line did as a whole and then how each shift did for the selected date range.



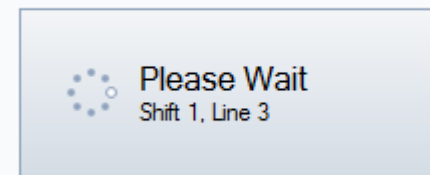
This is the report by Shift only. >>



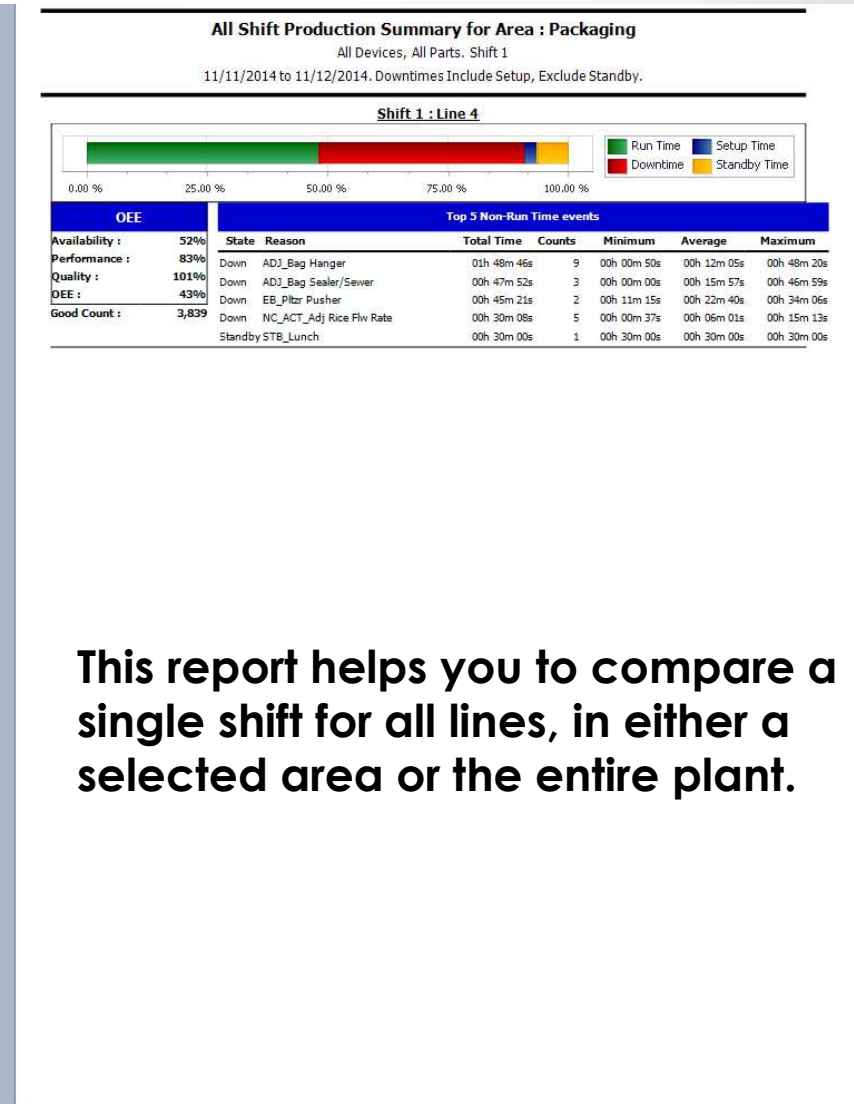
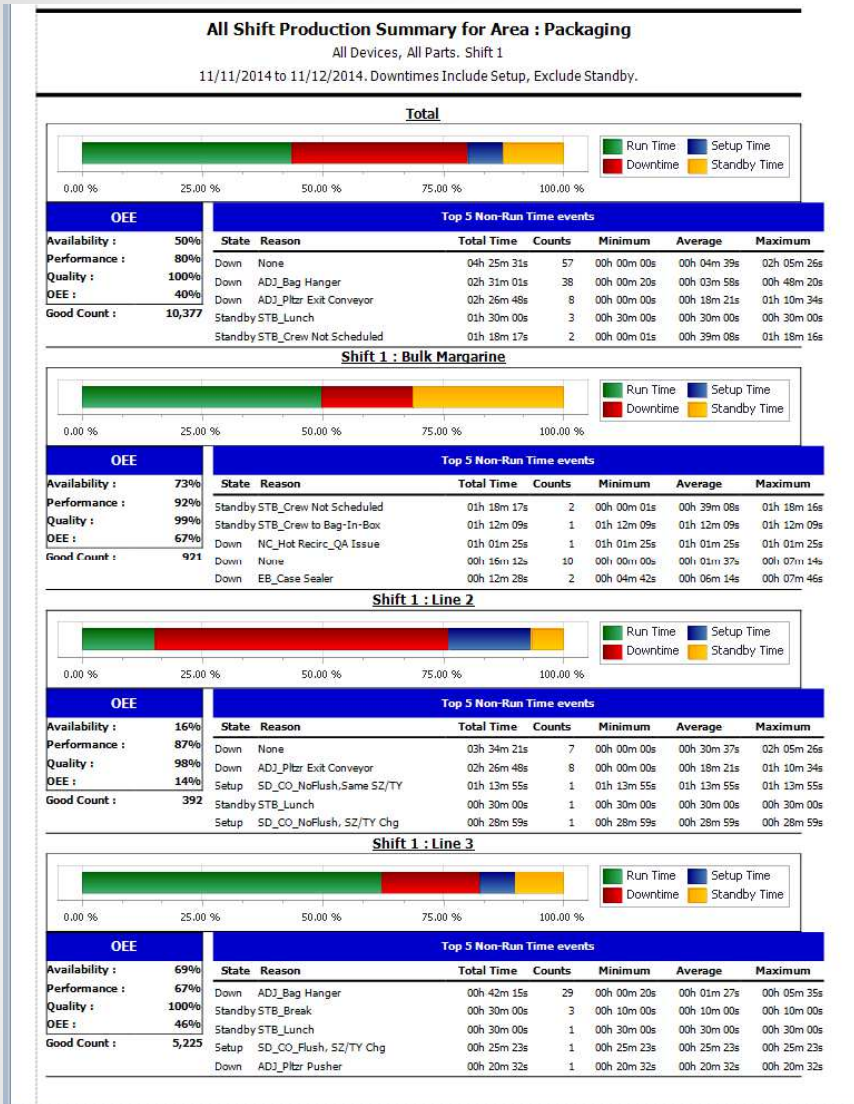
Reports – All Shift Production Summary – By Line – By Shift

The screenshot shows the 'All Shift Production Reporting' interface. It includes several sections: 'Hierarchy' with 'Area' and 'Packaging' dropdowns; 'Date Range' with 'From' (10/30/2014 5:00 AM) and 'To' (11/13/2014 5:00 AM) fields; 'Production Filters' with 'Device' and 'Part' dropdowns; 'Downtime calculation' with checkboxes for 'Include Standby in Downtime' and 'Include Setup in Downtime'; 'Show in Top Losses' with checkboxes for 'Downtime', 'Setup', and 'Standby'; 'Available Shifts' with checkboxes for 'Manual Reset', 'Shift 1', 'Shift 2', 'Shift 3', and 'Shift Undefined'; and a 'Detail' section with radio buttons for 'Report by Shift only' and 'Report by Shift and Device'. A 'Print / Preview' button is also visible. Red handwritten annotations include: 'Select shift(s) for the report.' pointing to 'Shift 3' in the 'Available Shifts' list; 'See how each shift contributes to the whole.' pointing to the 'Report by Shift only' radio button; 'See how each line and specific shift contributes to the whole.' pointing to the 'Report by Shift and Device' radio button; and 'Select specific event types or a combination - defaults to all.' pointing to the 'Setup' checkbox in the 'Show in Top Losses' section.

After you click on the Print/Preview button, the Please Wait display will show you which lines and shifts are being processed.



Reports – All Shift Production Summary – By Line – By Shift



This report helps you to compare a single shift for all lines, in either a selected area or the entire plant.

OEE Audit v2.1

In order to support the new Vorne v1.3.x firmware, you must upgrade to the latest

XL Bolt-on Data Collector version 1.7.14

[http://www.sulzerconsulting.com/downloads/vorne/XL Bolt-On Data Collector.zip](http://www.sulzerconsulting.com/downloads/vorne/XL_Bolt-On_Data_Collector.zip)

Version 2.1 of OEE Audit supports all versions of Vorne XL device firmware.

Smart Installation

<https://oeeauditinstall.blob.core.windows.net/release/v1/setup.exe>

If you have questions or need assistance, please contact either

Debbie Olk (OEE Audit or custom reports)

Debbie.olk@debtechsystems.com

or

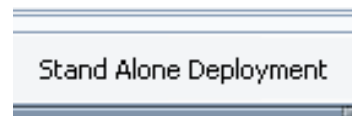
Jim Sulzer (XL Bolt-On Data Collector).

jim@sulzerconsulting.com

OEE Audit v2.1

OEE Audit version 2.1 is available for upgrade.

If you have an older version that was manually installed, please uninstall that version of OEE Audit before installing this version. This can be determined by looking at the bottom right of the OEE Audit software.



If you have utilized the Manual Installation method ~ you can download and install this version ~

Manual Download & Installation

www.oeeaudit.com/OEEAuditSetup_02_01_00.zip



Smart Installation

<https://oeeauditinstall.blob.core.windows.net/release/v1/setup.exe>

Contact Us

- As the Vorne Authorized Reporting Consultants, we provide customized reporting solutions, including working with data from your ERP/MRP systems.
- In addition to customized reporting, we provide support and customization for the [OEE Audit](#) reporting software (designed specifically for the data captured from the Vorne XL devices).
- We also provide sales, support and customization for OEE Alert. (www.OEEAlert.com)

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www.DebTechSystems.com