# 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



#### Availability Loss – Loss Events - Hierarchy

	Availability Loss Events (S	hift)		
	Hierarchy			
4	Location 🛛 🖌 404	10		
	Date Range	Production Filters	Include	
	From 10/27/2014 🔛 6:00 AM 🜲	Shift [All Shifts]	Run Time	ofreeh
	To 12/1/2014 🔛 6:00 AM 🚔	Device Roll Form Line 1	Down Time	terrear
	Preset Dates		<ul> <li>Setup Time</li> </ul>	
	Choose Preset		Standby Time	

Availability L	oss Events (P	art)			
Location	<b>⊻</b> 404	10	×	>	
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Choose Preset	$\mathbf{\mathbf{x}}$				Standby Time

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

### Availability - Loss Events - Shift

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oss Events - Parts tate Comparison	Location	404	10	~		
ree	Date Range		Production Filters			Include
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#### Availability - Loss Events - Part

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					B Down - Crash	00h 05m 54s		
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		SSI 45 T	otal			05h 16m 09c		
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#### 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.

				Downtim	e calculation			
Area		Packaging		Includ	e Standby in Down	time		
Date Range		Production Filters		Includ	e Setup in Downtim	e		
From 11/3/201	14 💉 5:00 A	M			Apply / Refresh			
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#### User Defined – Week & Quarter

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

Options       Integer       State/Image: State/	New Custom Expression	<< Enter a description and select Summary Type of M
Field Decorption wheek       Read Type     Boolean     Integer       Summary Type     Cont     Std Dev       Whin     Var     Var       Waverage     Var     Var       Waverage     Var     Var       Cancel     Proceed to Expression Editor>         In the Functions section, double-click on getWeekOfYear() or GetQuarter().	Options	a liner a description and select commany type of M
Image: String       Image: String         Image: String	Field Description     Week     Append Summary Type       Result Type     Boolean     Integer	Expression editor      GetWeekOfrear()
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Cancel       Proceed to Expression Editor         Image: Cancel       Proceed to Expression Editor         Image: Cancel       Image: Cancel	Min Var Max Var P Average	Functions     (All)     Extracts the week of year from the defined DateTime.       Fields     Constants     GetMinute()
In the Functions section, double-click on GetWeekOfYear() or GetQuarter().         In the Fields section, double-click on GetWeekOfYear() or GetQuarter().	Cancel Proceed to Expression Editor >>	GetQuarter() GetSecond() GetTimeOfDay() GetWeekOfYear() GetTimeOfDay() If(, ,)
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Section double click on either	+ - × ÷ %       (···)       = ≠ < ≤ ≥ > ●       ●         Exactloser       [Availability]       [Availability]       Converting       Converting         Operators       [Avg. Cycle Time]       [Avg. Cycle Time]       Converting       Converting       Converting         Events       [Avg. Rate Total]       [Pown Time]       [Pown Time]       Events       System. Do Time         [Down Time]       [entremcry]       [Pown Time]       [Pown Time]       [Pown Time]       [Pown Time]	In the Functions section, double-click on GetWeekOfYear() or GetQuarter().
[End Time] or [Start Time] depending upon how your production calendar starts.	[End Time]       [Good Count]       [Good Count]       [Ideal Cyde Time]       [OEE]       [Part]       [Parcent Down]	<< In the Fields section, double click on either [End Time] or [Start Time] depending upon how your production calendar starts.

#### User Defined – Week or Quarter



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

Hierarchy					L.	Downtime
Area		Packag	jing	×		Include
Date Range		Pr	oduction Filters			✓ Include
rom 7/1/20	14 📉 5:0	0 AM 🚊 Shi	ft [All Shifts]			es.
Fo 9/30/20	014 💉 5:0	0 AM 👶 De	vice [All Devices	]		
Preset Dates				54		A
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Tabular Analy	ysis Grid Analy	sis				
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Drop Filter	Fields Here					
OEE		Shift 0 V				
Week û	Device 1	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	<b>50.</b> 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. <mark>9</mark>	42.9	
	Line 4	54.8	49.0	53.7	52.3	
32 Total	11	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	

#### Using the Week data element ~

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

#### Reports – All Shift Production Summary

All Shift Production Summary for Enterprise : ACME Enterprises Device: PORTAB, All Parts

4/1/2014 to 4/2/2014. Downtimes Include Setup, Include Standby.

Down B Down - Machine

Standby Lunch

Standby Break

Down Part Check

Quality :

OEE :

100%

67%

00h 33m 37s

00h 20m 00s

00h 20m 00s

00h 10m 32s

1 00h 33m 37s 00h 33m 37s

1 00h 20m 00s 00h 20m 00s

2 00h 10m 00s 00h 10m 00s 00h 10m 00s

3 00h 00m 00s 00h 03m 30s 00h 10m 29s

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.



00h 33m 37s

00h 20m 00s

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

Hierarchy		Downtime calculation
Area	Packaging	Include Standby in Downtime
Date Range	Production Filters	
From 10/30/2014 S:00 A	1 Device [All Devices]	All Show in Top Losses
To 11/13/2014 S:00 A Preset Dates Choose Preset S	M ☆ Part [All Parts]	<ul> <li>✓ Downtime Select specif</li> <li>✓ Setup</li> <li>✓ Setup</li> <li>✓ Standby</li> </ul>
Available Shifts	Detail See how each shift	t contríbutes to the whole.
Shift 1 Shift 2	Report by Shift only	Print / Preview
Shift Undefined	Report by Shift and Device	

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



#### All Shift Production Summary for Area : Packaging All Devices, All Parts, Shift 1

11/11/2014 to 11/12/2014. Downtimes Include Setup, Exclude Standby.

			Shift	1 : Line 4				
						Run Tir Downti	ne 📰 Setup me 📻 Stand	Time by Time
0.00 %	25.00	96	50,00 %	75.00 %	100.00 %			
OEE				Top 5 Non-Run	lime event	5		
Availability :	52%	State	Reason	Total Time	Counts	Minimum	Average	Maximum
Performance :	formance : 83% Dow	Down	ADJ_Bag Hanger	01h 48m 46s	9	00h 00m 50s	00h 12m 05s	00h 48m 20
Quality :	101%	Down	ADJ_Bag Sealer/Sewer	00h 47m 52s	3	00h 00m 00s	00h 15m 57s	00h 46m 59
OEE :	43%	Down	EB_Pitzr Pusher	00h 45m 21s	2	00h 11m 15s	00h 22m 40s	00h 34m 06
Good Count :	3,839	Down	NC_ACT_Adj Rice Flw Rate	00h 30m 08s	5	00h 00m 37s	00h 06m 01s	00h 15m 13
		Standby	STB_Lunch	00h 30m 00s	1	00h 30m 00s	00h 30m 00s	00h 30m 00

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

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

<u>Smart Installation</u> 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.

Stand Alone Deployment

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 <u>OEE Audit</u> reporting software (designed specifically for the data captured from the Vorne XL devices).
- We also provide sales, support and customization for OEE Alert. (<u>www.OEEAlert.com</u>)

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