OEE Studio Release Note

Version 3.5

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What's New in 3.5

Favorites Screen

• This now has a Hierarchy column which will allow the users to filter by hierarchy (by selecting the filter icon in the column). Additionally any changes made to the layout on this screen will automatically get saved to the users profile, and applied whenever they return to the screen. There is also a "Revert to default" button at the top of the screen in case they need to reset the layout.

Enhancements

- Pivot Grid drill down data on cell with double click. The pivot grid displays the highlighted field in red when the drill down is applied.
- Availability Graphical Analysis Bar Color for Reason 'None' = Pink.
- Added Hierarchy Grouping to the All Shift Production Report.
- Added OEE Trend chart to All Shift Production Report.
- Ability to choose the production states included in Top Losses for Shift OEE Reports, Shift Production Report, Line OEE Report.
- New Report Shift OEE Report with Comments. Displays shift interval and production interval comments that were entered via OEE Alert.
- Added Line Production Time fields to the Availability Tabular Analysis Pivot and Data Grids.
- Top value filtering for Pivot Grid Controls.
- Added Raw Excel format option when exporting data grids and pivot grids to Excel
- Updated Website More online help check it out!! <u>www.oeestudio.com/toolbox.html</u>

Favorites Screen

text to search		✓ Find Clear					Remove Filters and Revert to Default Layout
fhy û ♡ Group Name û		<< Move the colum	nn headings around	l to get i	a dífferent	view.	
			Favorites				
rchy û	Group Name	3 Screen	Title	û Availability	Date Range		
ierarchy: Enterprise VetiiGF	ROUP MFG						
+ Group Name:							
lierarchy: Location Lebanon	, ст						
+ Group Name:							
+ Group Name: Cork Board	s						
 Group Name: Daily 							
Location Lebanon, CT	Daily	All Shift Production Summary Report	All Shift Production Summary Report	All Users	Current Day		Show Edit X
Lebanon, CT Print current rep	ort for first shift					Modify F	
Location Lebanon, CT	Daily	Availability - Graphical	<u>Availability - Graphical</u>	All Users	Current Week		
Lebanon, CT First Shift, 1004	_VFL3					Identifi	ication
Location Lebanon, CT	Daily	Availability - Graphical		All Users	Current Week		
Lebanon, CT Good Crew Meet	ting Report					Title	All Shift Production Summary Report
Location Lebanon, CT	Daily	Availability - Graphical	Downtime Reasons in Decending Order	All Users	Current Week		Lebanon, CT Print current report for first shift
Use for DT Repo	rts					Descrip	ption
Location Lebanon, CT	Daily	Loss Events - Parts	Loss Events - Parts - Palletizer cost report	All Users	Current Week		
Lebanon, CT instructions							
- Group Name: First Shift T	eam Leads					Group	Name Daily
Location Lebanon, CT	First Shift Team	Availability - Graphical	Downtime Graph Per Line	All Users	Current Week		
Post these at line	es daily					Date R	ange
Group Name: Monthly							
Location Lebanon, CT	Monthly	Availability - Graphical	Availability - Graphical	All Users	Current Week	Range	1 🔷 💿 Day(s) 🔵 Week(s)
Lebanon, CT							
Location Lebanon, CT	Monthly	Availability - Tabular	Availability - Grid Analysis	All Users	Current Week		All Users
Lebanon, CT	Manathly	Loss Durate Desta	Cost of Deserves at	All Lines	Constituted	Availab	le To
Location Lebanon, CT	Monthly	Loss Events - Parts	Lost of Bagger report	All Users	Current Week		Just Me
lierarchy: Plant 1004							

Includes a Hierarchy column so that you can save a report by Plant Location, Machine Type, Machine Area, etc. Select the Hierarchy column heading to select the filter The layout is automatically saved by user so that you can manage your Favorites!

[Hierarchy] = 'Location Lebanon, CT'

You can also assign reports to Groups, such as Daily, Monthly, Supervisor, etc.

Edit Filter

Favorites Screen

Hide Main Menu		Saved Favorites					
Enter text to search	M Find Clear				Remove Filters and Revert to De	fault Layou	ıt
Hierarchy 0 Group Name 0							
		Favorites					
Hierarchy û ♡ Group Nan	ne û Screen	Title	û Availability	Date Range			
Hierarchy: Enterprise VetiiGROUP MFG							
+ Group Name:							
Hierarchy: Location Lebanon, CT							
+ Group Name:							
+ Group Name: Cork Boards							
- Group Name: Daily							
Location Lebanon, CT Daily	All Shift Production Summary Report	All Shift Production Summary Report	All Users	Current Day	Show	Edit	x
Lebanon, CT Print current report for first shi	ft						
Location Lebanon, CT Daily	Availability - Graphical	Availability - Graphical	All Users	Current Week	Show	Edit	x
Lebanon, CT First Shift, 1004_VFL3							_
Location Lebanon, CT Daily	Availability - Graphical	Availability - Graphical	All Users	Current Week	Show	Edit	x
Lebanon, CT Good Crew Meeting Report							
Location Lebanon, CT Daily	Availability - Graphical	Downtime Reasons in Decending Order	All Users	Current Week	Show	Edit	x
Use for DT Reports							
Location Lebanon, CT Daily	Loss Events - Parts	Loss Events - Parts - Palletizer cost report	All Users	Current Week	Show	Edit	x
Lebanon, CT instructions							
Group Name: First Shift Team Leads							
Location Lebanon, CT First Shift	Team Availability - Graphical	Downtime Graph Per Line	All Users	Current Week	Show	Edit	x
Post these at lines daily							
 Group Name: Monthly 							

Click on the Show button to launch your favorite report. Click on the Edit button to modify the settings. Click on the X button to remove the report.

Pivot Grid Drill-Down

Any of the Pivot Grid screens allows you to **double-click** on a data cell to display the details associated with that cell.

Additionally, the cell will be highlighted in Red to indicate which cell you are referencing.

	Carton Ch	- Carton Checkweigher D Down			00h 03m 49s	1			
	Cartoner I	 Cartoner Downtime 			03h 23m 11s 40				
	😑 Combi Sca	les / Conveyor D	Down		00h 06m 45s	2			
	Feeding S	ystem Downtime D	own		00h 44m 16s	8			
	Late Down	ntime D	own		00h 01m 31s	2			
	E Lunch	S	Standby		00h 32m 00s	1			
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Drag a colum	nn header here to gro	oup by that column							
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Highlight Un-Categorized Downtime

Similar to the OEE Alert Production State screen where events that are 'None' are displayed in the color pink. We have brought the same indication to OEE Studio – **Availability** – **Graphical Comparison**.

Ilde Main Menu Availa	bility Loss Comparison
Hierarchy Include Options	💫 Add to Favorites
Enterprise VetiiGROUP OEE Alert Coloring for Rea	son: "None"
Date Range Production Filters Down Time	
From 4/25/2017 M 6:30 AM 😓 Shift [All Shifts] M AL Stappy Time	
To 5/9/2017 🗙 11:30 PM 😞 Device [All Devices]	
Preset Dates Prev/Next Part [All Parts]	
Choose Preset	
Graphical Comparison by Reason Graphical Comparison by Device Tabular Analysis Grid Analysis	
Total	Availability By Reason
	Down Time
15h 00m 00s -	- Average Duration
14h 10m 00s	
13h 20m 00s	
12h 30m 00s	
11h 40m 00s	
10h E0m 00a	
101 3010 005	
10h 00m 00s	
09h 10m 00s	
8h 20m 00s	
07h 30m 00s	
06h 40m 00s	
05h 50m 00e	
05h 00m 00s	
04h 10m 00s	
03h 20m 00s	irrences
02h 30m 00s	30 Occurrences 22 Occurrences 13 Occurrences
01h 40m 00s	15 Occurrences 14 Occurrences 14 Occurrences 10 Occurrences
00b 50m 00c	
20 ³⁷ 20 ³⁷ ¹ ¹ ¹ ² ¹ ² ¹ ² ¹ ¹	V. O VA VA VA VA VA VA VA

Reports – All Shift Production - More Options

Hierarchy			Downtime calculation
Enterprise	/etiiGROUP		 Include Standby in Downtime Include Setup in Downtime
Date Range	Production Filters		
From 4/25/2017 ≤ 6:30 AM ⇒ To 5/9/2017 ≤ 11:30 PM ⇒ Preset Dates Prev/Next Choose Preset ≤ ≤ ≤	Device [All Devices] Part [All Parts]		Show in Top Losses Down Select specific even types or a combination – Standby defaults to all
Available Items	Report By	Include Charts	
First Shift Manual Reset Second Shift	Shift only	State Summary OEE Trend	Print / Preview
Second Shift	Shift then Device		
	O Device then Shift	Optionally i Trend for do	dísplay State Summary and OEE ate range selected.
leave unchecked for all	O Device only		
nífts lísted.	🔵 Hierarchy 🚽	Summaríze	e by Enterpríse híerarchy.

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 - Hierarchy

Hierarchy			Downtime calculation	n
Location 🖌 Le	Include Standby in Downtime			
			Include Setup in D	owntime
Date Range	Production Filters			
From 5/3/2016 S:00 AM 🔶			Show in Top Losses	
To 5/17/2016 🗹 2:00 AM 🚖	Device [All Devices]		- Down	
Preset Dates Prev/Next	Part [All Parts]		Contraction of the second	
Choose Preset 🕥 <<>> 🗹			l ✓ Setup	
A	Describe.	Tardada Charda	Standby	
Available Items	Report By			
First Shift	Shift only	State Summary	Drint / Dra	aview
Gap Shift		OEE Trend		
Manual Reset	O Shift then Device			
Second Shift	Device then Shift			
Second Shift WE				
Shirt Onderined	Device only	-7		Selecting the Hi
	lierarchu	Hierarchy Level		list of Hierarchy
		Location		,
		Level		This is an exam
		Enterprise		hiergroby
		Location	#	merarchy.
		Order Type		
		OrderType PlanningPlant		The report will b
		Plant	\checkmark	selected level.
		×		

Selecting the Hierarchy Level provides the list of Hierarchy properties for your system.

This is an example of a customer's hierarchy.

The report will be summarized at the selected level.

Reports – All Shift Production - Hierarchy

Hierarchy			Downtime calculation					
Enterprise 🛛 Ve	Enterprise VetiGROUP MFG							
			Include Setup in Downtime					
Date Range	Production Filters							
From 5/3/2016 🕥 5:00 AM 💭			Show in Top Losses					
To 5/17/2016 🔛 2:00 AM 🚔	Device [All Devices]		✓ Down					
Preset Dates Prev/Next	Part [All Parts]		Setun					
Choose Preset 🕥 <<>> 🖄			Standhy					
Available Items	Report By	Include Charts						
First Shift	C chift auto	✓ State Summary						
First Shift WE		OEE Trend	Print / Preview					
Manual Reset	Shift then Device							
Second Shift Second Shift WE	O Device then Shift							
Shift Undefined	O Device only							
) Hierarchy	Hierarchy Level Region						
		· · · · · · · · · · · · · · · · · · ·	,					

OEE Studio. Application Licensed to Vetii Group (Global).

1.280 Down

60% Down

Reject Ct: Efficiency 0160 Break

1560 Settling Device

All Shift Production Summary for Enterprise : VetiiGROUP MFG All Devices, All Parts. First Shift, First Shift WE, Gap Shift, Manual Reset, Second Shift, Second Shift WE, Shift Undefined 5/3/2016 to 5/17/2016. OEE Includes Setup, Excludes Standby. **Total VetiiGROUP MFG** Run Time 📰 Setup Time Downtime 🗾 Standby Time 0.00 % 25.00 % 50.00 % 75.00 % 100.00 % OEE **Top 5 Downtime Events** Availability : 56% State Reason TotalTime Counts Minimum Average Maximum Performance: 73% 1700h 37m 29s 00h 00m 00s 40h 18m 28s Down None 2153 00h 47m 23s Quality : 100% OEE : 41% Down 0050 Start-up/shut-down 187h 51m 09s 188 00h 00m 00s 00h 59m 57s 39h 06m 47s 3,981,985 Down 0100 Roll Change 101h 52m 45s 173 00h 00m 00s 00h 35m 20s 39h 46m 19s Good Ct : Reject Ct: 1.280 Down 0160 Break 76h 08m 33s 186 00h 00m 00s 00h 24m 33s 00h 49m 22s 0050 Clean-Up 62h 22m 37s 61 00h 00m 00s 01h 01m 21s 10h 30m 01s Efficiency 58% Down Region Midwest Run Time 🗾 Setup Time Downtime 🗾 Standby Time 0.00 % 25.00 % 50.00 % 75.00 % 100.00 % OFF Top 5 Downtime Events 54% Availability : State Reason Total Time Counts Minimum Average Maximum Performance : 72% Down None 951h 28m 07s 1327 00h 00m 00s 00h 43m 01s 40h 18m 28s Quality : 100% 0050 Start-up/shut-down 161h 34m 14s Down 148 00h 00m 00s 01h 05m 30s 39h 06m 47s OEE : 39% Down 0100 Roll Change 92h 32m 42s 110 00h 00m 00s 00h 50m 28s 39h 46m 19s Good Ct : 2,235,213 Down 0160 Break 56h 52m 50s 143 00h 00m 00s 00h 23m 51s 00h 49m 22s Reject Ct: 0 Efficiency 1260 Loader 44h 54m 47s 57% 9 00h 00m 00s 04h 59m 25s 39h 41m 34s Down **Region Northeast** Run Time 📃 Setup Time Downtime 🗾 Standby Time 25.00 % 0.00 % 50.00 % 75.00 % 100.00 % OEE **Top 5 Downtime Events** Availability : 58% TotalTime Counts State Reason Minimum Average Maximum Performance: 74% Down None 749h 09m 22s 826 00h 00m 00s 00h 54m 25s 38h 51m 01s Quality : 100% OEE : 43% Down 0050 Clean-Up 47h 18m 28s 23 00h 00m 00s 02h 03m 24s 10h 30m 01s Good Ct: 1,746,772 Down 0050 Start-up/shut-down 26h 16m 55s 40 00h 00m 00s 00h 39m 25s 07h 16m 24s

19h 15m 43s

16h 00m 22s

43 00h 00m 00s 00h 26m 52s 00h 45m 02s

22 00h 00m 00s 00h 43m 39s 03h 11m 43s

Reports – All Shift Production - OEE Trend



Reports – All Shift Production





Daily Shift Production Report

Select which types of losses to display on

First Shift Shift Start: 06:00 Shift End: 14:30 n Event Minimum Counts Average Maximum % To Tota 00h 20m 25s 00h 25m 45s 00h 31m 45s 00h 00m 01s 00h 03m 28s 00h 06m 56s 1.4% 00h 04m 24s 00h 04m 24s 00h 04m 24s 0.9% 00h 04m 07s 00h 04m 07s 00h 04m 07s 0.8% 00h 00m 06s 00h 00m 06s 00h 00m 06s 0.0% Top 5 Event Count 1650 Robot Case Fill 1650 Robot Case Fill None 0160 Break 1610 Stretch wrapper Top 5 Setup Events TotalTime Counts Minimum Average Maximum % To Tota 00h 12m 54s 00h 30m 16s 00h 00m 24s Top 5 Event Count 0100 Setup/changeover Top 5 Standby Event Counts Minimun Average Maximum % To Tota 00h 14m 58s 00h 14m 58s 00h 14m 58s 2.9% 2 00h 00m 00s 00h 01m 01s 00h 02m 02s 0.4% Top 5 Event Count 2 1.5 1 0.5 Not Scheduled Not Scheduled None

Shift OEE Report



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Shift Reports

Shift OEE Report with Comments



Shift Reports 🛛 🖤

Line OEE Report



PivotGrid Field List	×
Drag Items to the PivotGrid	
Crew Name	Drag fields between areas below:
End Time	Y Filter Area
Line Production Time	Enterprise
Nhr Otta	Geographic
Start Time	Location
State	Row Area
User No. 3	Device
User No. 4	Loss Reason
User No. 5	
User No. 6	Column Area
User No. 6	
User String 2	
User String 3	
User String 4	∑ Data Area
Water Flowrate	Duration (Sum)
Water Temperature	Reason Count
	Z
	Defer Layout Update



Analyze Loss Percentage to Total Production Time

Let's say we wanted to see the percentage of Loss Reason 'None' to total Production Time by Line. **Total Production Time** includes all Run, Down, Setup and Standby Time.

There is a new data element called 'Line Production Time'.

This data element will display the amount of production time that was available for the line, for the **date range** selected.

Drag the data element to the **Data Area** of the Field List.



Analyze Loss Percentage to Total Production Time

We then filter the screen to display only the 'None' Reasons.

Next we create a custom field to calculate the Percentage of the loss to total production time.

Functions Operators	[Crew Name] [Device]	^	Field Information Caption: Line Production Time								
Fields Constants	[Duration] [End Time]	#	System.Int32	_			. 0	Grand Total			
	[Geographic]			Device	۵	Loss Reason	Û.	Duration (Sum)	Reason Count	Line Production Time	PCT To Production
	[Line Production Time] [Location]			= 1004_R	SS1	None		64h 28m 39s	30	186h 02m 01s	34.66
	[Loss Reason] [Nbr Cuts]			= 1004_V	FL1	None	_	03h 13m 07s	50	255h 45m 03s	1.26
	[Order Type]			= 1004_V	FL2	None		05h 08m 39s	57	228h 57m 34s	2.25
	[OrderType] [PlanningPlant]	~		= 1004_V	FL3	None	_	03h 06m 19s	43	231h 43m 47s	1.34
				= 1004_V	FL4	None		07h 56m 59s	77	234h 44m 21s	3.39
			OK Canc	= 1004_V	FL5	None	_	03h 08m 41s	48	255h 45m 28s	1.23
		-		Grand Tota	I			87h 02m 24s	305	1392h 58m 14s	6.25



Finding the Top 'x' Values

Let's say we want to find the Top 3 downtime reasons for a specific category of downtime, by line.

There is a new function called Top Value Filtering.

This **function** is available in the any of the pivot grids.

First, we are going to display the list of Down Time reasons for all of our lines.

Then we are going to filter for those reasons that begin with MS (because we use reason codes responsibly ~ [<u>Click Here to learn more</u>]

					🖌 Selec	t multiple Durati	on or Reason Count values to chart information
Asset	Enterprise	Line	Location	MachineID	Plant	SubType	
Duration	Reason C	ount		Drop Column Fields	Here		
				Grand Total			
Device	Û	Reason	Û	Duration	Reason (Count	
1 Coil		BR CONV/C	URLER	00h 11m 37s		2	Directorial Dus filter
		BR LINER		01h 15m 35s		5	
		MS BLISS		01h 43m 42s		45	And O
		MS BLS THE	READUP	02h 11m 24s		25	🛄 🦾 [Reason] Begins with MS 🛛 🖄 🕄
		MS CONV/C	URLER	02h 06m 23s		62	
		MS DUMP H	OPPER	00h 26m 26s		7	
		MS INTERN	AL Q.C.	00h 01m 52s		1	
		MS LAZY SU	JSAN	00h 19m 22s		8	
		MS LINER		03h 07m 04s		91	
		MS SLEEVIN	IG	00h 15m 47s		9	
		MS VISION	_	00h 21m 24s		6	
		None	_	00h 45m 58s		8	
		SS STARTU	Р	00h 05m 44s		4	
		WIP RECON	N	00h 01m 09s		1	
Coil Total				12h 53m 27s		274	OK Cancel A
L03		BR BLISS	_	03h 49m 11s		13	2
		BR CONV/C	URLER	00h 56m 11s		1	



Finding the Top 'x' Values

Next, we need to sort the durations largest to smallest.

- 1. Right-mouse click on the **Duration** Column and select Sort "Reason" by This Column".
- 2. It will display the up/down arrows to indicate sorting.
- 3. Next, click on the arrow on the **Reason** column heading to sort highest to lowest durations



Finding the Top 'x' Values

- Choose 'Top Value Filtering' menu option.
- 2. Select what you want to filter and click 'OK' button.
- Now you have the Top 3 losses that begin with 'MS' for each line.

	۰ <u>۲</u>	66.2	40.4	
		86.3	66.7	
Layout		82.2	61.9	E>
Δ.		80.5	64.5	
Set Font		81.6	73.6	To Ex
		77.8	61.1	
Save Layout		79.3	63.5	Expo
		89.4	82.3	Printi
Restore Layout		88.7	88.7	Levre
-		5.8	4.6	Layo
Revert to Default Layout		83.3	72.0	
•		86.3	77.7	
Fields		85.7	45.3	Selec
		85.1	45.8	
Show and Hide Fields		39.1	16.9	expo
		78.4	37.8	_ heac
Define Custom Fields		82.0	41.6	
<pre>(C)</pre>		81.6	76.4	
Top Value Filtering		75.3	73.9	_
10 10 Voide Fintering		63.3	59.9	_
Print / Export	TTT	91.6	87.3	_
Time / Expore		85.1	80.7	_
Print / Preview		76.1	59.8	_
Export)		
Click here for Printing, Exporting	, Field Selec	tion and Layout	<u>Settings.</u>	\rightarrow

Excel Export – Raw Format

To Export raw data to MS Excel select the **Export** option from the '**Click here for Printing, Exporting, Field Selection and Layout Settings**' drop-down.

Selecting the Raw option will allow you to export the data without cell merge, report neaders or footers, etc. to MS Excel.

Export Data 🛛 🕅
Excel (XLSX)
C Excel (XLS)
⊖ csv
O PDF
◯ Text
⊖ HTML
Excel Export Format
Standard Raw
File Name
OK Cancel

OEE Studio v 3.5

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

XL Bolt-on Data Collector version 1.8.3

http://www.sulzerconsulting.com/downloads/vorne/XL Bolt-On Data Collector.zip

Version 3.5 of OEE Studio supports all versions of Vorne XL device v1.x firmware.

Smart Installation

http://oeestudio.com/installs/release/v3/setup/InstallOEEStudio.exe

If you have questions or need assistance, please contact either Debbie Olk (OEE Studio, OEE Alert, ERP integration, or custom reports) Debbie.olk@debtechsystems.com

> or Jim Sulzer (XL Bolt-On Data Collector). jim@sulzerconsulting.com

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 Studio** 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)

OEE Studio, OEE Alert and XL Bolt-On Data Collector are part of the Marketing brand of

Vetii GROUP