

PRODUCTION EFFICIENCY TRACKER

Flexible Industry 4.0 Solutions for Manufacturing

Bridging machine data and people knowledge for real-time production optimization





PRODUCTION EFFICIENCY TRACKER

Flexible Industry 4.0 Solutions for Manufacturing

Bridging machine data and people knowledge for real-time production optimization

SUPER EASY TO INSTALL & INTEGRATE WITH EXISTING INDUSTRIAL INFRASTRUCTURE The system can be quickly and easily integrated with any type of equipment, including old machinery

4 Big Benefits

- Gain real-time insight to the production floor
- Improve manufacturing efficiency
- Quantify KPIs for better process improvements
- Reduce waste





The Production Efficiency Tracker (PET) is a holistic system that helps you get real-time insights from production work processes. Its aim is to help you achieve your production targets faster, while also improving your production schedule.

PET provides advanced Shop Floor Management for both manual and automated processes through a distributed system built for visualizing waste and anomalies during production, thus supporting Kaizen and Six Sigma methodologies. The system not only tracks the production processes, but it also monitors all the detailed actions simply by annotating data and organizing it into meaningfull dashboards.





PET tailors to your needs by seamlessly connecting to your equipment with an Operator Device (OPD) package which serves as a medium to collect important data as well as a way for the line operator to keep track of the production process and annotate important events.

Depending on the space and accessibility of the install location, OPD comes in an all-in-one package, fitted with a 14 inch screen for easy access and interaction, or an alternative package that contains the operator interface and a separate module which connects to the equipment.

OPD can be implemented on manual or automated production lines, on new and old equipment. For older equipment, no direct connection with the PLC is needed.





SIMPLE OPERATOR INTERFACE

LINE 1/PRODUCTIVITY 2019.11.28 13:51 Admin Admin	:	LINE 7/ISSUES 2020.07.29 14:58 Admin Admin	
OEE	OEE - Last 60 min	Pending issues	Micro issues
75.	50%	BUNDLING Breakness: Breakness Banding / Bickage (https://www.banding.com/ Timer-00-204-57/01:30:00	BLISTERING Wors-tape: Mice Step [Clearly (2020/23 4:45)) Time:00:00:00(01:30:00
59% 39%	0% 82.31% 0%	- 30500099 HIS COLOROD	BLISTERING Micro-Inpac Micro Step (Chime) (2003 23 (4:32) Time:00:00:00/01:30:00
2% in 7h in 9h 4h 3h 3h 1 Production	IN Shift 1		CARTONING Micro-Hops: Micro Step (Closed (2020) (23 04:52) Time:00:00:12/01:30:00
1545	Order ID: ORD_0663 Batch ID: B0012 Statution: 0918 41 28 13:17		CARTONING Microstops: Micro Step [Conset] (2008) (2001/23 41/2) Time:00:00:00/01:30:00
1620	Target: 5013 Units/h: 2400 Dafects: 49.33 / 49.33 Units		SERIALIZATION Micro-tops: Micro Step (Conset (2008) 23 (4:52) Time:00:00:01/01:30:00
816 8 0n 7h 0n 9h 4h 2h 2h 1	Products: 960 / 905 Units		SERIALIZATION Micro-Intege Micro Step (Cloved (2002) 23 41:42) Time:00:00:03/01:30:00
Quality Change shift	End Shift 1 End production	Logbook	V 🗭 Comment

The key part for a system that uses the knowledge of the people involved in production is how easy it is for them to interact with the system and how it enforces them to input data.

That's why PET has a very operator-friendly interface, with few options and a guided workflow for collecting data from production processes. It uses simple dashboards to guide the operator interaction with the system and enforces good practice without needing prior knowledge.





According to Kaizen, each problem should trigger a line stop in order to reveal quality and process issues. Handling of these line stops is managed in a structured way that improves reaction time, enables root cause analysis and permanent elimination of the issues.



KANBAN MATERIAL MANAGEMENT



A lot of waste is generated by materials that are not conformal or are not delivered in time. PET can handle the flow of materials between the processes and the warehouse, using Kanban methodology. In this way, waste generated by missing material is reduced and the efficiency of material handlers is increased by being able to spot urgent deliveries and using optimized routes. This is the first step to have a completely automatized system for material handling on the production floor.





VISUAL MANAGEMENT BOARD

The Visual Management Board (VMB) helps you identify what equipments are currently encountering problems and provides efficient ways to react, the moment such events are happening. To support this, the dashboard provides not only key information regarding present and future data related to production, but also a historical view on how the overall process progressed in the last 24 hours along with a detailed breakdown on what issues led to the loss in efficiency.



As seen above, data collected by the OPD and processed by the server creates a digital representation of the production floor by highlighting the status of each line where PET is installed, along with a suite of real-time information regarding the production process, such as OEE, the number of units produced on shift or the number of rejects. With each passing hour, said data is cummulated and transformed into a meaningfull breakdown of efficiency and added to the historical data chart.





For a more in-depth representation of your equipment, PET comes with the ability to separetely visualize various metrics and aspects of your machines through Visual Management per Equipment (VME).

Using VME allows you to monitor the selected equipment anywhere in the factory, simply by accessing a link and, for further flexibility, the charts generated using the received data are fully customizable, thus it is also capable of highlighting all the aspects which present an interest on the equipment.



The VME above, presents an example of charts and metrics created for the purpose of actively monitoring the equipment, both in the present and in the past. The header contains information regarding the order that is currently being worked on, while the charts that follow it present how the equipment behaved on different time intervals.





The Energy Monitoring Dashboard (EM) allows PET to monitor the power consumption throughout your factory and in the process, define the necessary tools to locate power fluctuations and irregulatities as well as calculate an approximate energy cost.



To achieve this, EM attaches to points of interest, like equipments or specific devices from an equipment, and collects data related to their cosumption, such as Power, Voltage and Current. This data is then processed by the server and converted to metrics and charts that describe historical, present and future behaviour.







With PET Dashboard (PD) the time it takes to react to certain issues is diminished due to the capabilities it offers, allowing the user to pinpoint exactly where the issue has occurred the moment it appears.



Being the home screen of the whole application, PET Dashboard offers the same capabilities as the Visual Management Board (VMB), however, it is accessible from any device and also contains a multitude of additional charts, each of them highlighting different aspects of the production process, such as OEE, downtimes, rejects and units produced.

Other than the above, PD also contains a multitude of metrics not present in the VMB, their role being to offer a summary over how the system performed and quickly indicate if any anomalies occured.





ADVANCED PERFORMANCE ANALYTICS AND REPORTING

OEE Timeline



Flexibility in working with data is key to understanding what is actually happening; that's why our dynamic, filter-based reporting offers the insights needed to understand what went wrong and what is causing the losses. PET's flexible filtering system allows data drill-down from enterprise level down to an individual equipment in a production line, showing the selected group's performance in the form of a timeline.

OEE Breakdown



For a more in-depth breakdown, PET also comes equipped with the OEE Breakdown functionality which allows you to view the group's cummulated performance and drill-down to the lowest levels that can influence it and accurately pinpoint what caused the anomalies.



Productive time breakdown

On the same topic of getting a more in-depth analysis, productive time breakdown offers another perspective by describing how each loss of performance affected the overall productive time of the selected group.





Downtime history



Having a clear overview of the reasons for the different interruptions on the production line enables manufacturing organizations to have a more structured approach towards optimization. PET is able to auto-annotate part of these downtimes and offers a user-friendly interface to annotate the unknown ones. This downtimes are then organized in various charts which help uncover anomalies or repeating patterns that cause loss in performance.

Downtime timeline



Additionally, while charts like downtime history focus on the behaviour of the equipment and help uncover said anomalies during normal operation, downtime timeline provides the tools necesarry in pinpointing repeating patterns of issues, over a specified ammount of time.

Comment analysis

Comment Analysis Analyse Wew as Weekdowd
Q =
repetate cantar antares schimbat rola etichete preluare prospect pliantele deschis inchide pliantele curatat stampila blocaje cartonare control umplere schimbat folie pvc micro oprice schimbat folie reglaje cartonare recuperat rebut oprire schimbat folia pvcoprire repetate blocaje stanta blocaje introducere iesit formare antarespliantele inchide bine pliantele nu inchide pliantele rupt folia eroare blocaje asezarea blistere sters stampila erori blocaje repetate antares schimbat tolua pvc blocaje intrare antares lipsa formare pliantele transport prospect necoresp oprire repetate antares consecutive cod pprospect

Moreover, PET also offers the ability to analyze the comments added by the operators when annotating downtimes. The comments that appear most frequently are highlighted at the top and offer the biggest reasons as to why downtimes were generated in the first place, giving valuable insight an revealing hidden issues.





Changeover history



PET supports the definition of a changeover matrix for each production line, with changeover stoppages being automatically created in the beginning of the execution of production orders. Based on this, the system presents, in a friendly way, which changeovers are problematic and which sequence of production orders generate the highest delays.



Changeover timeline

Moreover, with the timeline and changeover breakdown charts, the tasks of identifying how much time is actually spent during changeovers and what part number is causing the most delays becomes ever easier to perform.

Changeover breakdown by part numbers







Machine runtimes



A clear understanding of when the machine is running and when it is stopped helps in determining patterns of failure, which in turn result in being able to predict when an equipment requires maintenance. With PET, this task is made simpler through the help of the runtimes chart which shows in an easilly readable manner when the machine was active and how much time was spent with the machine being inactive.

Maintenance KPIs



PET also offers multiple historical views on maintenance KPI's, such as Mean Time Between Failures (MTBF), Mean Time Between Repairs (MTBR) or Mean Time To Repair (MTTR), which further aid in revealing patterns on equipment breakdowns.

Production timeline

Using automatically collected data, PET offers insights into how the production process evolved over a period of time, by reshaping it into a user-friendly chart that not only shows how many units were produced and what the scrap rate was, but also what planned quantity (PQT) should have been reached in that interval.

Production line speed

In parallel with Production timeline, PET can further detail the current status of the production process though the Production line speed and Scrap analysis charts which togheter help you form a complete understanding of why the PQT was not reached and what rejects contributed to the loss in quality.

Scrap analysis

For an even deeper analysis, PET offers a multitude of other charts, each tailored to a specific aspect of the production process and made available through a user friendly interface that allows you to filter your data down to the smallest periods and granularities.

Parameters of the process such as temperature or acidity are continuously adjusted in order to better control the process. The lack of data related to these changes results in a poor understanding of what goes wrong and what is actually improving productivity. Due to this, PET offers the tools necesarry to accurately monitor the changes in those parameters.

REAL-TIME ALERTS AND MOBILE INTERFACE

Access to the application on your mobile device, including real time notifications about what is happening, gives much better reaction time and control. With PET, all the capabilities found in our desktop interface are also made available on mobile, allowing the same level of access even when you are on the move.

Additionally, our mobile interface offers real-time data access, including valuable and significant notifications that enable you to react faster and more efficiently.

For better delegation of responsabilitites PET also offers the posibility of notifying a custom number of groups, each responsible for a different type of anomaly and having multiple escalation levels, thus minimizing reaction time and ensuring that the correct persons are being notified.

PRODUCTION PLANNING

⊞ Sche	ndule						4 2
Current planning (T	Terster) *	🔸 🖈 🛱 Scenario to com	pare with *		*	Search	
Create	e scenario	Release to production	Delete scenario	Production units *	* *	Finished good mutting *	÷
ule Routing	5						
		Nov - w47			Nov - w48		
Equipment	W Thu, 25, Nov	Friday, 26. November Sat, 27. Nov	Sunday, 28. November Monday, 2	29. November Tue, 30. Nov Wed, 1	. Dec Thursday, 2. D	lecember Friday, 3. December	Saturday, 4. December
Programate-2		1530+17/1225-312680017-PROG	1867400/1102-3] 2120045-PROG [1957	382/8538-312120045-PROG 1194218/8	828-3 2096720-PROG		
TESTE-1		11530417/8 <mark>225-11 2880017</mark> -TE5T	[1682146/8275-1] 2128453-TEST	013578/8605-1] 2096720-TEST [1567461	/8749-112039091-TEST	(1562776/8304-1) 2096720-TEST	
TESTE-2		11154430/8146-132824476-1	EST [1969635/8366-1] 2824476-TEST [19	41933/8375-112880017-7657 [1511295/8016-1]	2880017-TEST [1824610/806	3-1] 2080018-TEST [1043647/859	1-1] 2693055-TEST
HLA-1		11530417/8225-2 <mark>1 26800</mark> 17-HLA 1196	9635/8366-2) 2824476-HLA [1941933/837	75-2] 2880017-HLA	38/8120-2] 2128453-HLA		
HLA-2		<mark>(139+</mark> 156/ <mark>8152</mark> -2] 2693053	5-HLA 11068169/8215-2 <mark>12693055-HLA</mark>	11478520/18733-21	2120045-HLA [1377779/	8495-21 2568819-HLA	
HLA-3		11154430/8146-2] 2824476-HLA	[165 <mark>3464</mark>]8357-2] 21	039091-HLA 11935738/0489-212039091-HLA	[1043647/8591-	-21 2693055-HLA	
РАСК-1		11530417/8225-0 2880017-9/	KCK [1969635/8366-0] 2824476-P	MACK [1957382/8538-0] 2120045-PACK [15	67461/11749-0] 2039091-PACK	[1194218/8828-0] 209	6720-PACK
PACK-2		<mark>[1154430/8146-0]</mark> 28	124476-PACK [1682146/8275-0] 2128453	3-PACK [1941933/8375-0] 2880017	PACK [1614211/8377-0] 2128453-P	MCK [1195075/8996-0] 2693	1055-PACK
			a a 1101	The first	a. 445	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	- March (1943)

Based on historical and real-time data, the production planning module is auto readjusting production orders in order to fulfill as best as possible delivery deadlines. At the same time, it minimizes the overall production execution time, in order to improve OEE, taking into account changeovers, historical performance on certain machines vs. others and technological process steps.

This, coupled with the added feature of creating planning scenarios which can then be compared with one another to select the best combination, creates a powerfull and all-encompassing tool that dynamically plans orders and ensures the equipments are fully utilized.

* —
v =
<u> </u>
~ =

STOCK MANAGEMENT

🛱 Sci	hedule									()	2
Current planning	(Terster) *	- / × 3	Scenario	to compare with *			*	*	Search		×
Creat	te scenario	Release to pro	luction	Delete scenario	Production units *		•	×	Finished good routing *	+	×
Schedule Routing Equipment Traub TNA480	s Xr)96 M T V (12779/81] 31.000368-4	Apr. – w1 7 V T F 81 0%	5 S M	May - w1 8 T W T F 12433/42/20.0004011 20.000401-4	Production order [12139/42/31.C00287] Eut Equipment: HAAS VF3-YT.1 Start: 2022/05/09 1918 End: 2022/05/10 19:49 Materials: Not available	uc ambreaj 3181-00.41	F 5 02033-1.81	5	May - w20 M T W T F Now-2022/05/17.16.26	s s	=
HAAS VF3-YT.1				9946/42/31.000446] 31.000446-1.	42 12139	/42/31.000287 31.00028	7-80				
	121	Nov '21	101.55	Mar *22	E May 22 E	301,555		Sep '22	Nov *22	Jan 123	
Zoom 1d 3d	lw 2w	Im All	In progress	Pending Paused Complete	d 🔴 Deadline 🔴 Unplann No materials	ed shift 🌘 Changeove	r 🥚 Invalid				

For situations where production planning cannot happen without taking available stocks into account, PET also provides a fully fledged stock management feature that not only allows monitoring of material deliveries, but also schedules production orders based on available materials as well as future deliveries.

Filters								~
Filter Presets					Part number			
1770)				- 🖪 🍵				
Time interval	Start date:		End dates					
Current month +	202	2/05/01-00:00	2022/06/01 00:00					
		Apply						
Stock records								¥
+Add new						Search:	Previous 1 4 5 6	11 Next
Part number		Number of available stock	5	Availabi	e quantity	Future deliveries		
[2039091-CDA] COA		1		123		*.		2 6 8
[2039091-ICT] ICT		4		23		<u>8</u>		Ø 🖥 B
(2039091-PROG) PROG		1		76		2022/05/28 21:00 (Quantity: 530) 2022/05/18 09:00 (Quantity: 596)		
[2039091-HLA] HLA		1		7612		\$		2 🖬 🖻
[2039091-TEST] TEST		1		129		5		12 🖬 B
[2039091-PACK] PACK		a .		213		5		8 8 8
[2824476-SMT] SMT		1		220		£).		Ø 🗎 🗃
[2824476-WAVE] WAVE		a		1250		8		2 🗎 B
[2824478-DEP] DEP		1		1700		2022/05/25 13:00 (Quantity: 1430)		2 h B
[2824476-WASH] WASH		1		30		20		2 6 8
+Add new						Search:	Previous 1 4 5 6	11 Next
Showing 41 to 50 of 103 entries								

(

WORKSHIFTS PLANNING

Based on a predefined pattern of workshifts, the system offers an easy way to define the work structure for different production lines.

With minimum interaction from the operator, PET automatically creates downtimes for unplanned shifts, marks when a shift starts too late or ends too early and keeps track of performance.

Additionally, workteams can also be assigned to each shift, further helping in identifying what user belongs to what shift, thus improving traceability.

MAINTENANCE PLANNING

For situations where periodic maintenance is necesarry, PET provides a simple and user-friendly interface for planning maintenance downtimes ahead of time as well as assigning what workteam will perform the repairs or check-ups, in the process, allowing for better organization and efficient use of staff.

PREDICTIVE MAINTENANCE

Production unit EquipmentGroup	2							
Visual Management Board Chane the ne Factory1 \ EquipmentGroup	e of Failure in at 5 minutes: 19%	Fullacreen	- The second sec	525				~
Line1	A 19%	Line2	Line3	Lin	ie4	Lir	1e5	
# ExampleOrder / ExampleOrder		# 350100229816 / T21219L &[83150250] POSTINOR-2	# 350100230382 / U226 &[65304417] BLIST	ງ24A #3 ເຈີຍໄ	350100229885 / T23031A [85215692] LIN/MILLINETTE	# &	350100229538 / 21B357A [86904690] DROVELIS	
🖹 Done: 98495 / 129848	75.9%	■Done: 122983 / 261127	47.1%	A 🔁	Done: 3388 / 24656	13.7%	Done: 9023 / 50760	17.8%
X Rejects: 11450	10.4%	X Rejects: 4507	3.5%	∽→	Rejects: 378.33	10.0%	Rejects: 1948	17.8%
MOEE Shift:	0.7%	Lat OEE Shift:	0.4% CHAN	GEOVER	OEE Shift:	0.2%	OEE Shift:	0.3%
Lin OEE Order:	1.0%	OFE Order:	1.5% NAG	TATALLAS	OEE Order:	0.1%	OEE Order:	0.2%
202:01:07	0.7%	2006-20-26	627:44:3	7 / 00:00:00	626:17:25		2081-12-51	0.2%
Line6 STOPPED LATE START: 06:17:26 6578:49:18		Line7 # 350100230197 / T23017A @fts180161] AZALIA EDone: 371 / 50040 * Rojects: 146 MIOFE Shift: MIOFE Order: 626:10:34	0.7% 28.2% 0.2% 0.0%					
Production statistics for today								~
3144 Minutes Total downtimes	onal information	O Tota	al production Additiona	l information©	20 Total defects	Addition	nal information©	×
OEE - last week			÷	OEE - today				Ŷ

With the latest version of the server, PET now has the capability of predicting when failures may occur and what orders may be impacted. In doing so, equipments that have a high chance of failure will have their orders rescheduled to other machines where possible, thus avoiding production delays.

	🛗 Schedu	le																					L	•	l
Curre	ent planning (-) -		. 1	×	#	Scena	ilo to con	npare with		.*	×	202	2/03/02 02:0	0			÷		Search					
	Create sce	enario			Release to	production			Dek	etë scenari	p		Fac	ory1\Equip	mentGroup1	\Equipmen	tGroup2*		ĸ	Finished g	ood routin	s*			Ψ.
edule	Routing																								
		Apr	ii.				May				Ju	ne				July				Augu	st		Se	otember	
	N28- ADA-	Apló-	Aplio-	Ap) 0'-	MAB -	M39-	Mag -	MZÝ -	wag -	Jun -	w23Jun	- w24Jun	- w25jun	- w26 Jul -	w27 Jul -	w28 Jul - v	/29 Jul - w	30 A Bġ	- MB	1 - W86	- wве	- A8	- इस्ट्रा	- 54	¢7-
12	(350100229816	/T21219L] 8	3150250 4	7% [350]	00229228/	Z18358F] 86	904610																		
e2 e3 e4	(350100229816 (35010023038 (35010022988	/T21219L] 8 2/U22024A 5/T23031A]	85215692	7% (3501 0% (3501 13% (3501	00229228/	Z18358F] 86 T1C1212] 8 T1A398A] 6	904610 5346894 5293510																		
e2 e3 e4 e5	(350100229816 (35010023038 (35010022988	/T21219L] 8 2/U22024A) 5/T23031A] 8/Z18357A]	3150250 4 65304417 85215692 86904690	7% (3501 0% (3501 13% (3501	000229228/	TICI2IZ] 8	52904610 5346894 5293510 5260840																		
e2 e3 e4 e5 e6	(350100229816 (35010023038 (35010022988 (35010022953	/T21219L] 8 2/U22024A 5/T23031A] 8/Z18357A]	85215692 86904690	7% (3501 0% (350) 13% (350) 17% (350)	00029228/ 00000000/ 00226031/ 00000000/	Z18358F] 86 T1C1212] 8 T1A398A] 6 T21038C] 8 AK test] 851	904610 5346894 5293510 5260840 80110 (355	10000000	0/T21101	8) 851 8759	4 [35010	0230185/1	123022AJ 8:	196300 [356	1100230184/	T23021A) 8:	5186300 [35	6010023	0) 83/1723	220 <mark>4] 851</mark> 86	300 3501	00230399/	Z21312A] 8	4114641	
e2 e3 e5 e5 e7	(350100229816 (35010023038 (35010022985 (35010022953 (35010022953	/T21219L] 8 2/U22024A] 5/T23031A] 8/Z18357A] 7/T23017A]	85180161 85304417 85215692 86904690	7% (3501 0% (3501 13% (3501 17% (3501 11% (3501 0% (3501	00229228/ 00000000/ 00226031/ 00000000/	Z18358F] 86 T1C1212] 8 T1A398A] 6 T21038C] 8 AK test] 851	904610 5346894 5293510 5260840 80110 (35) 89300361	10000000	10/T21101	8) 851 8759	4 [35010	0230)85/1	123022AJ 8:	186300 [356	3100230184/	T23021 AJ 8	5186300 [35	i010023	0183/T23	120 <mark>4</mark> 85186	300 [350]	00230399/	Z21312A) 8	4114641	

Based on real-time data as well as historical data, the custom reports module delivers a powerfull tool for generating custom Excell reports by defining a user-friendly interface and allowing you to shape the way your data is presented. The filters used to configure those reports can then be saved for you or all users and accessed anytime at the press of a button.

Additionally, custom reports can also be scheduled for delivery to multiple users and even sent automatically at regular intervals, tasks that would be otherwise repetitive, such as generating daily reports, being handled automatically by PET.

Tabue Colspan="4">Tabue Colspan="4">Tabue Colspan="4">Tabue Colspan="4">Tabue Colspan="4" Tabue Colspan="4" Tabue Colspan="4" Tabue Colspan="4" Tabue Colspan="4" Tabue Colspan="4" Tabue Colspan="4">Tabue Colspan="4" Tabue Colspan="4">Tabue Colspan="4" Tabue Colspan="4" <t< th=""><th>Filters</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>~</th></t<>	Filters													~				
Image: set in the set into the set intot the set into the set into the set into the set into the set in	Filter Pres	ets					Proc	luction orders										
Nature	111						8 6											
	Production	n unit					Wor	kshifts		W	ork teams							
Bot dat Bot dat Bot dat Bot dat Bot dat Bot dat <th>Line</th> <th>1</th> <th></th>	Line	1																
Carbon Carbon 0 Starter 0	Time inter	vəl	Start date:			End date:												
columa Columa <th colspan="4" columa<="" t<="" th=""><th>Custom</th><th></th><th>- 🗎 2020</th><th>0/09/23 00:00</th><th></th><th>2021/01/13 00:00</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></th>	<th>Custom</th> <th></th> <th>- 🗎 2020</th> <th>0/09/23 00:00</th> <th></th> <th>2021/01/13 00:00</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>				Custom		- 🗎 2020	0/09/23 00:00		2021/01/13 00:00								
State Image: State Image	Row Aggre	gation					Colu	mns										
	× Shif	t × Pn	oduction order				£5	Part number 🛛 🗶 F	art number description	Equipment l	ong name 🛛 ×	Order ID ×	Batch ID	1				
Image: state production Image: state productin Image: state productin <td>Custom Se</td> <td>ctions</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Order planned start dat</td> <td>te 🛛 🕷 Order plann</td> <td>ed end date 🛛 🔺 C</td> <td>rder actual start o</td> <td>iate × Ord</td> <td>er actual end</td> <td>date</td>	Custom Se	ctions						Order planned start dat	te 🛛 🕷 Order plann	ed end date 🛛 🔺 C	rder actual start o	iate × Ord	er actual end	date				
Set by 1	× Tota	il units produ	iced per shift 📗 × Generation time					Total units produced pe	er order 🛛 × 🛛 Total i	defects produced per o	rder 🔗 Plar	ned quantity	× Shift.na	me				
Code 10 Code 10	Sort By 1							Work team × Pla	anned shift start 👘 🛛	Planned shift end	🛛 Actual shift	start × Ad	tual shift end					
Property Property <t< td=""><td>× Ord</td><td>er ID</td><td></td><td></td><td></td><td></td><td></td><td>Usemame × Un</td><td>its produced 🛛 🕷 🕻</td><td>efects produced</td><td>Rejects produc</td><td>ed × OEE</td><td>× Targ</td><td>et speed</td></t<>	× Ord	er ID						Usemame × Un	its produced 🛛 🕷 🕻	efects produced	Rejects produc	ed × OEE	× Targ	et speed				
Image: Note of the stand o	Group By							Average line speed	× Average line spee	d % of Ideal speed	× Scrap rate	× Top downt	imes by frequ	uency				
All colspan="6">Colspan="6" Colspan="6" Colspan=""Colspan=""Colspan=""Colspan=""Colspan=""Colspan=""Colspan=""Colspan=""Colspan=""Colspan=""Colspan=""Colspan=""Colspan=""Colspan="								Total downtime duration	on × Total micro	downtime duration	🔲 🛪 Total chang	geover duration	× Row o	duration				
Vertice ve		_																
Service se	App	Υ Υ																
$ \frac{1}{2} 1 2 1 1 2 1 1 2 1 1$	Report	preview												~				
Now for some participation Solution Market with participation Particoparticipation Participation </td <td>📥 Down</td> <td>load</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Previo</td> <td>1995 I</td> <td>2 3 Next</td>	📥 Down	load										Previo	1995 I	2 3 Next				
1 Shift ParmaCompany/PackagingLine 1 Shift · username.username@gmail.com Loc 2020/09/23 060119 2020/09/23 080119 2021/09/23 18:42:7 0225:42 101004322 Poole 0 02122021 2 Shift ParmaCompany/PackagingLine 1 Shift Shif	Row No	Row type	Equipment long name	Shift name	Work team	Username	Planned shift star	t Planned shift end	Actual shift start	Actual shift end	Row duration	Order ID	Batch ID	Part number				
Image: state Image: state <th< td=""><td>1</td><td>Shift</td><td>PharmaCompany\Packaging\Line 1</td><td>Shift 1</td><td>9</td><td>username.username@gmail.com</td><td></td><td></td><td>2020/09/23 06:01:19</td><td>2020/09/23 13:42:57</td><td>02:25:42</td><td>101100045252</td><td>F09080B</td><td>92129201</td></th<>	1	Shift	PharmaCompany\Packaging\Line 1	Shift 1	9	username.username@gmail.com			2020/09/23 06:01:19	2020/09/23 13:42:57	02:25:42	101100045252	F09080B	92129201				
Image: state Image: state <th< td=""><td>2</td><td>Shift</td><td>PharmaCompany\Packaging\Line 1</td><td>Shift 2</td><td>9</td><td>username.username@gmail.com</td><td>2020/09/23 14:00:0</td><td>0 2020/09/23 22:00:00</td><td>2020/09/23 13:51:21</td><td>2020/09/23 21:29:31</td><td>07:38:10</td><td>101100045252</td><td>F09080B</td><td>92129201</td></th<>	2	Shift	PharmaCompany\Packaging\Line 1	Shift 2	9	username.username@gmail.com	2020/09/23 14:00:0	0 2020/09/23 22:00:00	2020/09/23 13:51:21	2020/09/23 21:29:31	07:38:10	101100045252	F09080B	92129201				
3 Shift PharmaCompany/Packaging(Line1) Shift a Loc Loc And																		
A Shift PharmaCompany/Packaging/Line 1 Shift + username.username@gmail.com 2020/09/24 06:00:00 2020/09/24 14:00:00 2020/09/24 12:55:36 03:44:46 10110045252 F00080 92129201 5 Shift PharmaCompany/Packaging/Line 1 Shift + username.username@gmail.com 2020/09/24 06:00:00 2020/09/24 05:57:03 2020/09/24 12:55:36 03:11:29 10110045252 F00080 9213436	3	Shift	PharmaCompany\Packaging\Line 1	Shift 3	(#	username.username@gmail.com	2020/09/23 22:00:0	0 2020/09/24 06:00:00	2020/09/23 21:51:59	2020/09/24 05:50:11	07:58:12	101100045252	F09060B	92129201				
5 Shift PharmaCompany\Packaging\Line1 Shift - username.username@gmail.com 2020/09/24.06:00:00 2020/09/24.16:00:00 2020/09/24.12:55:30 03:11:29 10110045253 F87042R1 92131438	4	Shift	PharmaCompany\Packaging\Line 1	Shift 1	a	usemame.usemame@gmail.com	2020/09/24 06:00:0	0 2020/09/24 14:00:00	2020/09/24 05:57:03	2020/09/24 12:55:38	03:44:46	101100045252	F09080B	92129201				
	5	Shift	PharmaCompany\Packaging\Line 1	Shift 1	4	username.username@gmail.com	2020/09/24 06:00:0	0 2020/09/24 14:00:00	2020/09/24.05:57:03	2020/09/24 12:55:36	03:11:29	101100045253	F87042R1	92131438				
A Described	4																	
	& Down	load										Preute		2 3 Nevt				

Sometimes, it would be beneficial to have the tools necesarry to track what changes have been made to the system as well as who made the changes, especially in environments where certain configurations change frequently.

To reduce the burden of having to manually track said changes, PET comes with a full suite of management tools, designed to automatically track exactly when modifications were made, to what part of the application and by who. Doing so, you have the full history of events ready to be displayed at a moments notice and with the added capability of allowing users access only to certain parts of PET, mistakes can be easily identified and corrected.

Filters								~
Module						Change type		
All					×	All		- x
Data type						Username		
All					×	All		* X
Time interval		Start date:	End date:		-			
Today		2022/05/13 00:00	2022/03	5/14 00:00				
		Apply						
Audit							Search	~
Date of insertion	Change source	s Username	Module	Data type	1 m 2	Change type	= Short description	
2022/05/13 15:07:30	[UI]	pet.octavic@gmail.com	Maintenance planning	Maintenance		Delete	A planned maintenance (Defectiune/Defectiune electrica) has been deleted from Line 2	
2022/05/13 15:07:30	[0]]	pet.octavic@gmail.com	Maintenance planning	Maintenance		Delete	A planned maintenance (Defectiune/Defectiune electrica) has been deleted from Line 5	
2022/05/13 14;56:18	[0]	pet.octavic@gmail.com	Maintenance planning	Maintenance		Create	A planned maintenance (Defectiuni Blisterizare/Schimbare folie PVC) has been added to Line 3	
2022/05/13 14:42:44	[01]	pet.octavic@gmail.com	Shift	Workshifts		Update	A shift (ID = 22156) has been updated on equipment 'Line 6'	
2022/05/13 14:41:25	(UI)	pet.octavic@gmail.com	Work teams	Work teams records	5	Create	A work team record (ID=562) has been added	
2022/05/13 14:41:25	(UI)	pet.octavic@gmail.com	Work teams	Work teams records	s	Create	A work team record (ID=563) has been added	
2022/05/13 14:41:25	(UI)	pet.octavic@gmail.com	Work teams	Work teams records	s	Create	A work team record (ID=564) has been added	
2022/05/13 14:41:25	[UI]	pet.octavic@gmail.com	Work teams	Work teams records	š ő	Create	A work team record (ID=565) has been added	
2022/05/13 14:41:25	(UI)	pet.octavic@gmail.com	Work teams	Work teams records	s)	Create	A work team record (ID=566) has been added	
2022/05/13 14:41:25	[UI]	pet.octavic@gmail.com	Work teams	Work teams records	s	Create	A work team record (ID = 567) has been added	
Showing 1 to 30 of 30 entrie	5						Previous 1	Next

CLOUD OR ON-SITE DEPLOYMENT

Not only does PET come with a full suite of features and modules, but it is also quite flexible when it comes to installing the application. Thus, the server which contains the base application as well as the collected data, can be deployed either on cloud or on-site depending on available resources and budget.

HOW PET IS HELPING MANUFACTURING ORGANIZATIONS

Manufacturing organizations commonly face the following issues	PET addresses these problems by
Unusable systems and time wasting due to a complicated operator interface	A simple unobtrusive operator interface, customized for each industry
Not having an efficient production setup	Monitoring and Calculating real time OEE
Not delivering production orders in time	Smart planning based on actual data gathered over time
Not having the needed information from the shopfloor on time and in a flexible manner	Unique mode of presenting information for each organizational level
Facing regulatory pressure due to collecting inaccurate data on paper	Automated data gathering with our GMP compliant solution
Poor process traceability	Electronic logging for every action and production event
Not able to identify and quantify issues in real-time	Real-time shopfloor visual management

PRODUCTION EFFICIENCY TRACKER

Flexible Industry 4.0 Solutions for Manufacturing

Bridging machine data and people knowledge for real-time production optimization

SUPER EASY TO INSTALL & INTEGRATE WITH EXISTING INDUSTRIAL INFRASTRUCTURE The system can be quickly and easily integrated with any type of equipment, including old machinery

© Copyright - Octavic PTS All rights reserved.

PHARMA

FOOD

PLASTICS INJECTION

METALWORKING

BEVERAGE

DAIRY

CONSUMER GOODS

BUILDING MATERIALS

COSMETICS

EMS

www.octavic.ro

ORADEA: 16, Fagurelui Str. 410222, Oradea, Romania **TEL:** (0040) 740 300 049

BUCHAREST: 27B, Camil Ressu Av. 031736, Bucharest, Romania **TEL:** (0040) 728 942 385

E-MAIL: office@octavic.ro

www.octavic.dk

ADDRESS: 6P, Richard Mortensens Vej 2300, Copenhagen, Denmark TEL: (0045) 31311934

E-MAIL: office@octavic.dk

LINKEDIN: linkedin.com/company/octavic/