

GIMM PROCS

T · Systems ·

The background is a complex, abstract composition of various shades of pink and red, ranging from light, airy tones to deep, saturated magentas and dark reds. The shapes are primarily triangles and polygons of different sizes, creating a low-poly, crystalline effect. The overall impression is one of dynamic energy and modern design.

GIMM SOLUTION

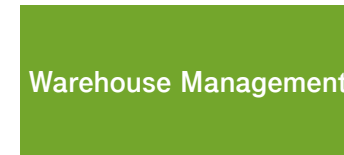
GIMM



A SUPPLY CHAIN MANAGEMENT SOLUTION

gimm (Global Integrated Manufacturing Manager) is a T-SYSTEMS solution created to synchronize the automotive supply chains (car manufacturers and first tier suppliers) giving a specific answer to Just in Time, Just in Sequence, Traceability, Production Control and Warehouse Management.

gimm manages the logistic and productive activities in discrete delivery or production environments, synchronizing the processes of the plant to ensure proper keeping of the supply chain.



PROCS manages factory's internal production through automation of their productive operations in "Manufacturing Execution System" (MES) modality, controlling the robots at workstations or work cells and thus guaranteeing follow-up and automatic traceability of both their productive processes and finished products.

Main functionalities covered by PROCS:

- Acquires and stores traceability data,
- Ensure production process quality,
- Management of workstations and work cells,
- PLC configuration and management,
- Handles raw material, production, rework, scrap and packing stations
- Management and configuration of productive workflow.



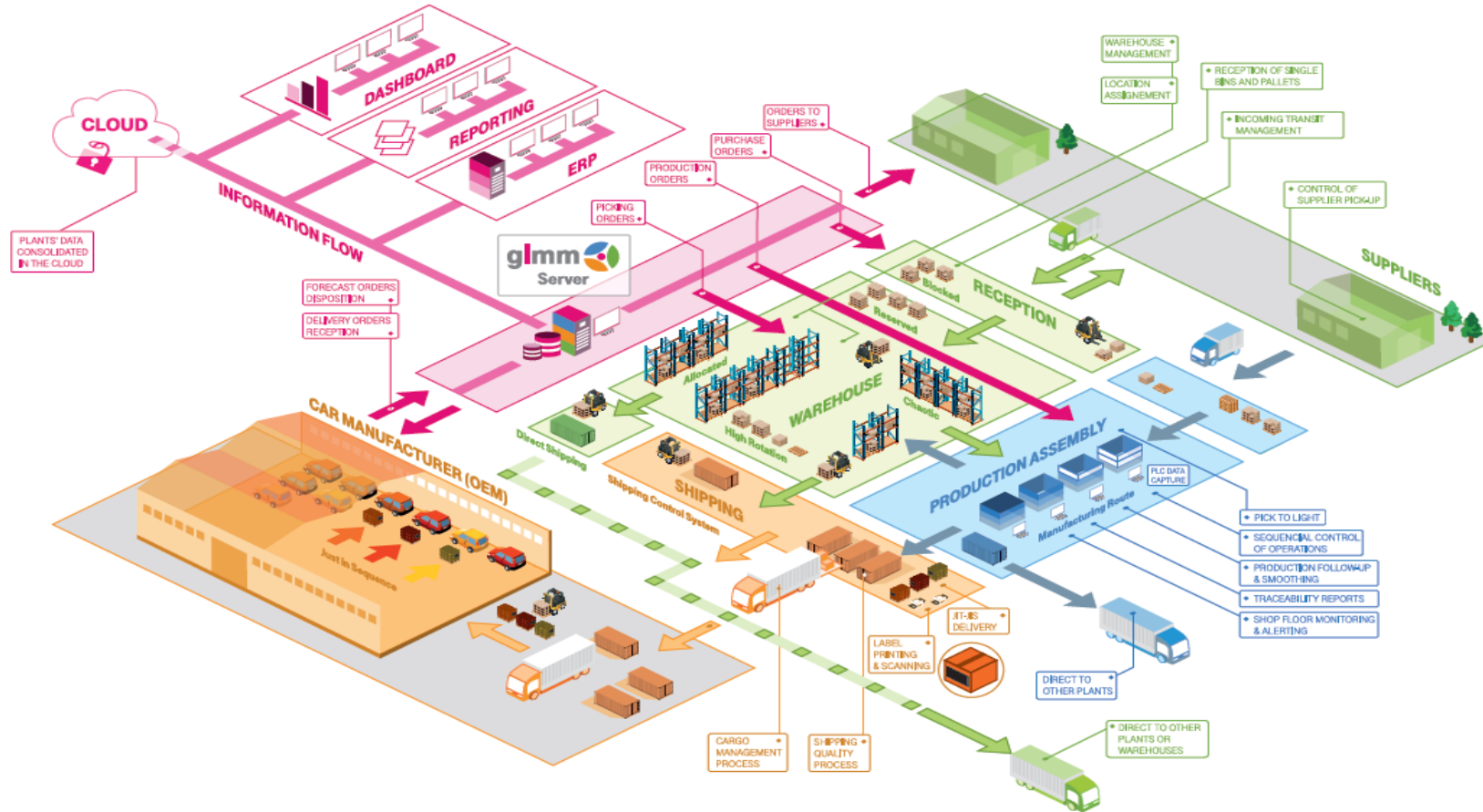
GIMM

PICKING SYSTEM MODULES

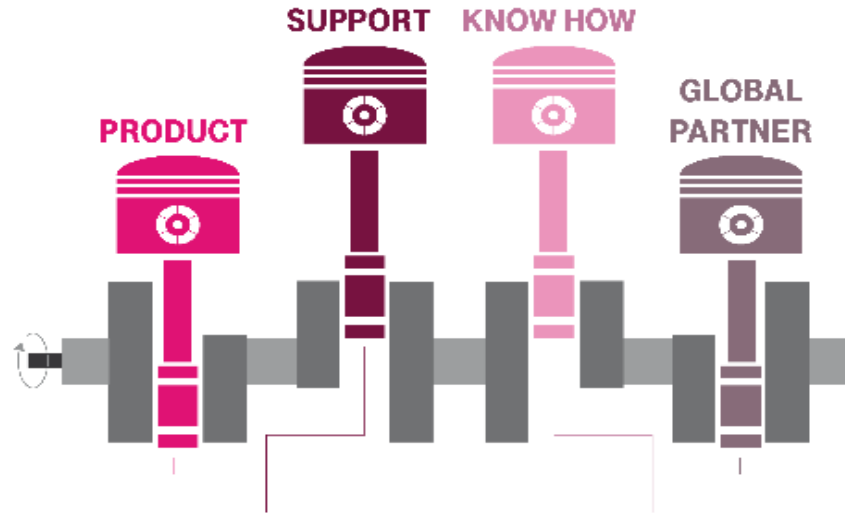
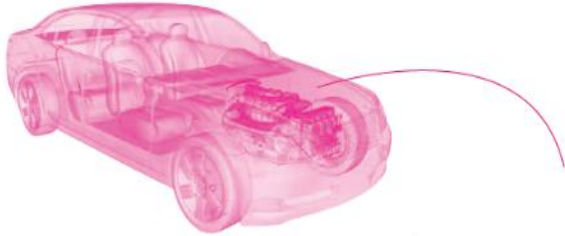
gimm provides extension modules for picking and kitting processes. Based on technologies such as tablets, lights, vision and voice or combination of several of these elements the picking system modules bring to customers innovative logistics solutions to achieve Industry 4.0 objectives.



FUNCTIONAL MODULES OVERVIEW



GIMM - BENEFITS



- ❑ Focused on Automotive sector for JIT/JIS and traceability
- ❑ Flexible, scalable and highly configurable
- ❑ Standard interfaces
- ❑ Product Management & Roadmap

- ❑ 24x7 expert assistance specialized on mission critical environments
- ❑ +80% incidents solved within first contact
- ❑ OEM's demand compliant
- ❑ Worldwide support service

- ❑ Industrial expertise
- ❑ Highly skilled team worldwide
- ❑ +15 years business experience
- ❑ Excellent knowhow in shop-floor processes

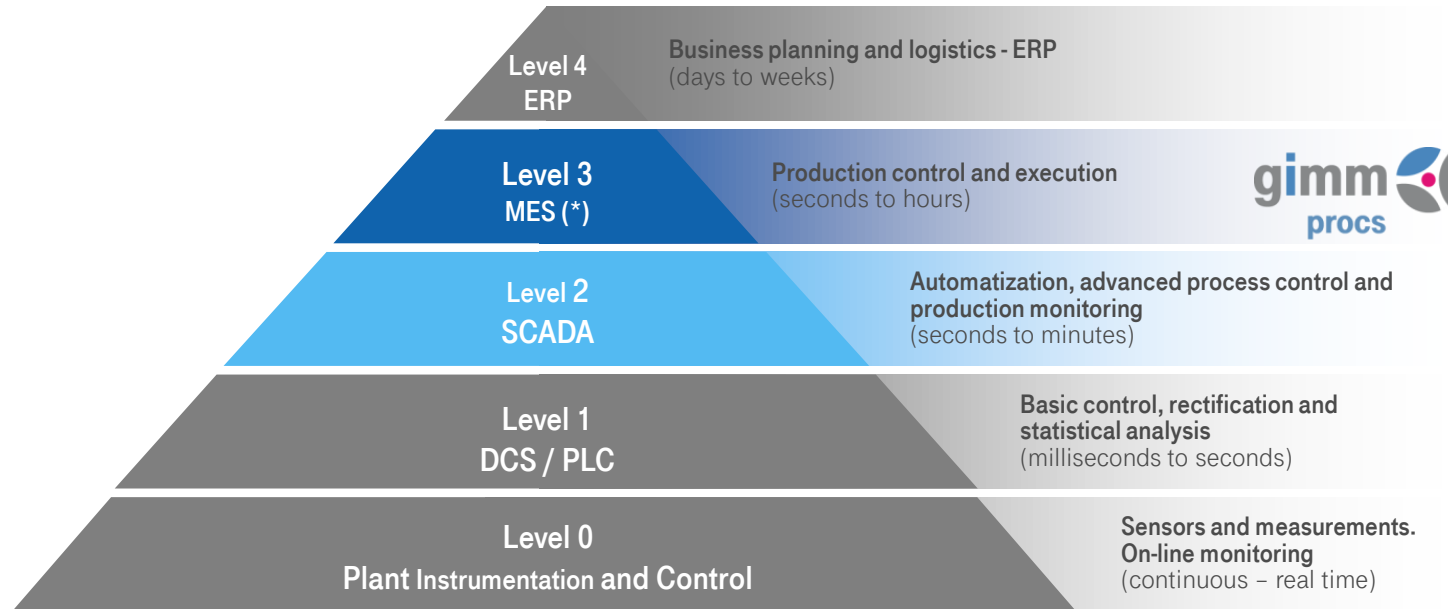
- ❑ Single provider with worldwide coverage
- ❑ Cost effective
- ❑ Global approach
- ❑ T-Systems product

The background is a complex, abstract geometric pattern composed of numerous overlapping triangles and polygons in various shades of pink, magenta, and red. The colors range from light, almost white-pink to deep, dark red. The overall effect is a textured, crystalline or low-poly aesthetic. The text 'GIMM PROCS' is positioned on the left side of the image, centered vertically relative to the upper half.

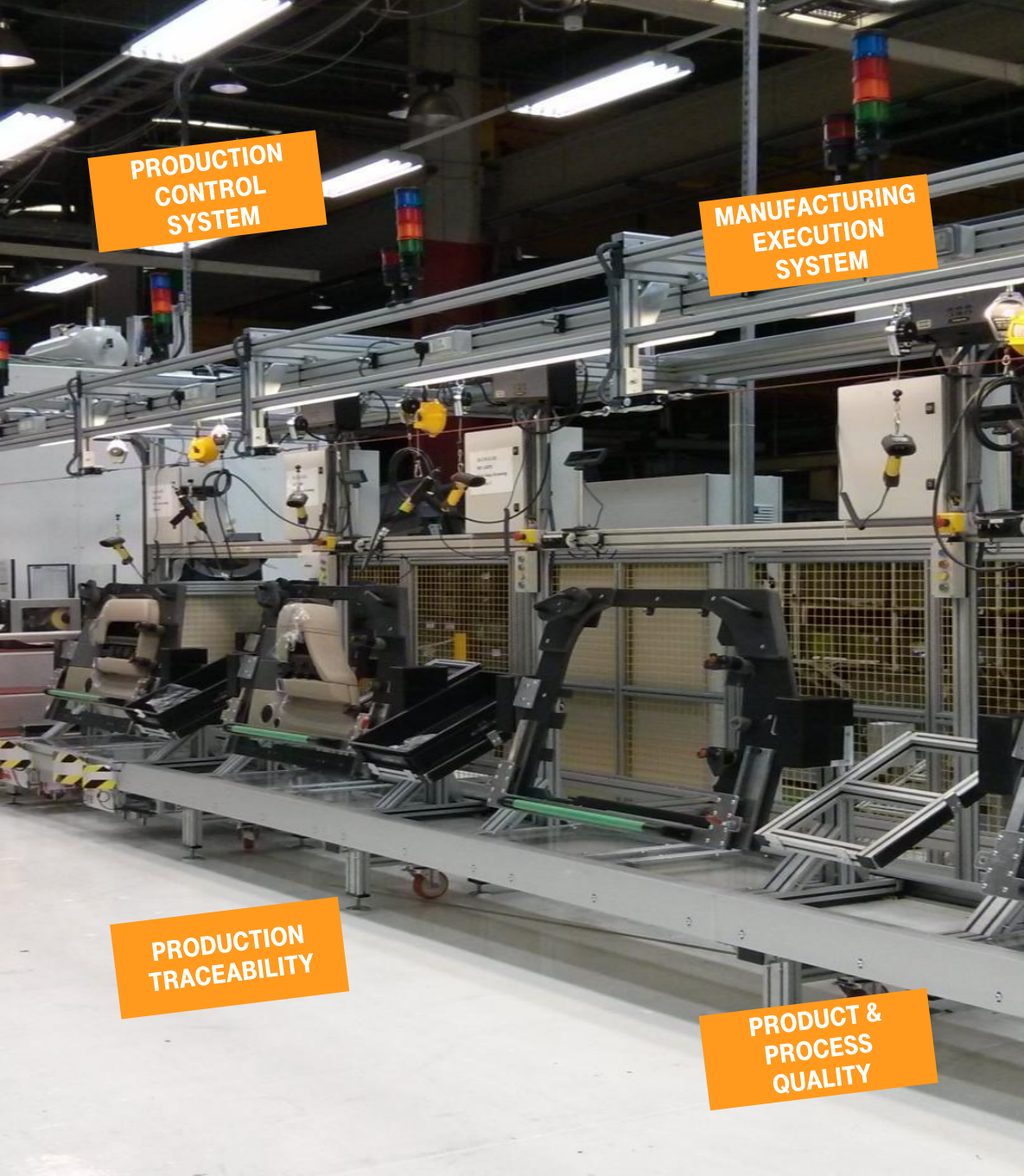
GIMM PROCS

PROCS

SCOPE OF THE SOLUTION



PROCS (Production Control System) manages factory's internal production processes through automation of their productive operations in "Manufacturing Execution System" (MES) compliance, guaranteeing a follow-up and a traceability of both their production processes and finished products by exchanging data with machine tools, robots and operators.



PROCS



MAIN FUNCTIONALITIES

- **Management of assembly /production lines** (work cells). Scalable for large physical facilities
- **Management and configuration of productive workflow** (sequential control of operations)
- Ensure production process **quality**
- Handles the **bill of materials** and the declaration of **reworks** and **scraps**
- **Packing of products** and **material consumption management**
- **Poka-yoke** production techniques
- **Standalone or connected to a JIS/JIT⁽¹⁾ - APS⁽²⁾ systems**
- **Online monitoring of workstations**
- **Online monitoring of production KPI's**
- **Online production alerts** (graphical displays, email, labels,..)
- **Hardware simulators** (virtual devices) for modelling purposes

⁽¹⁾JIS/JIT: Just In Sequence / Just In Time

⁽²⁾APS: Advanced Planning and Scheduling

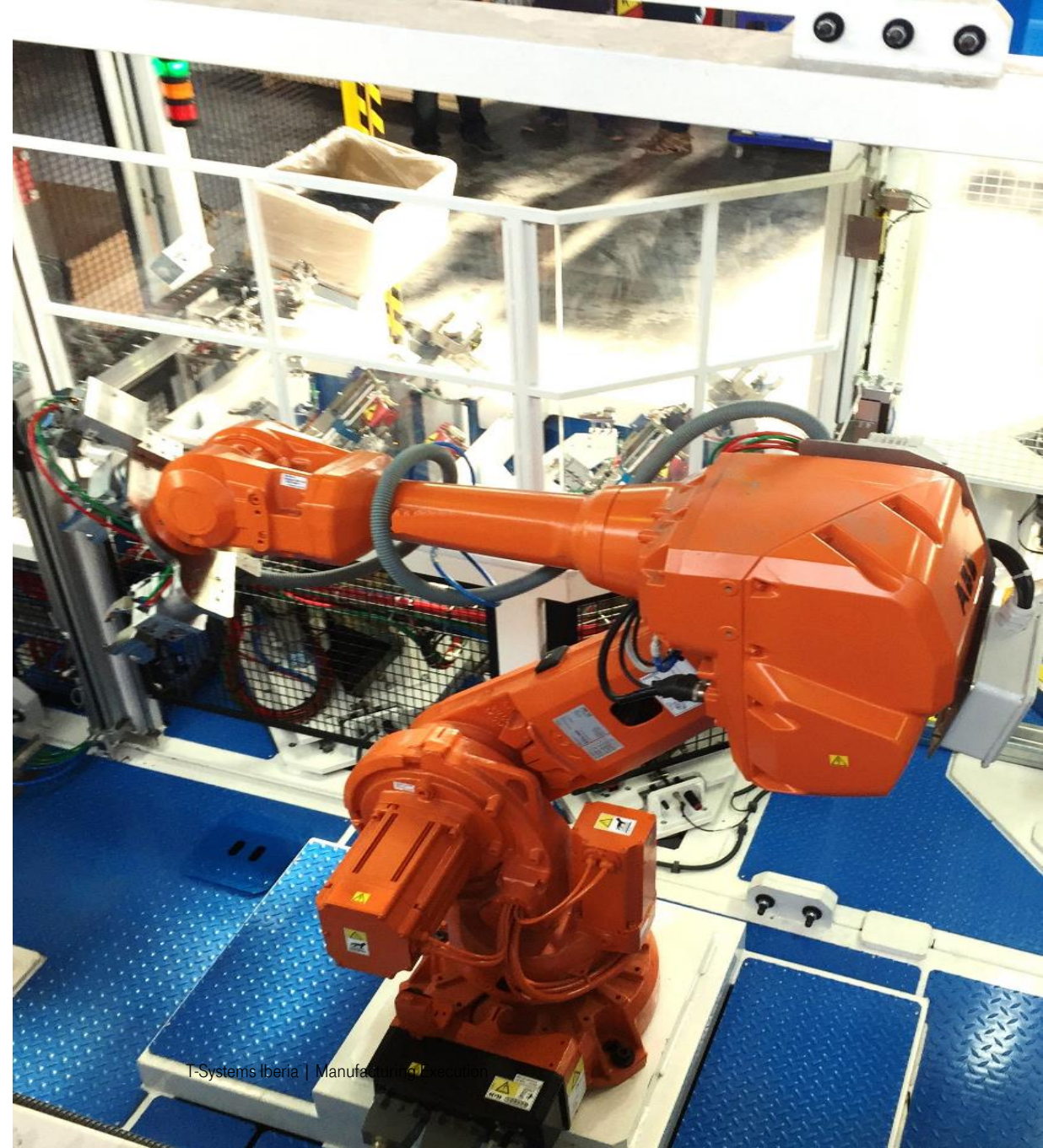
PROCS

OPERATIONS & ENGINEERING

- **Login** on workstations and monitoring screens
- **User profiles tailoring**
- Multiple BOM /Routing
- File import/export capabilities
- **PLC** connection and management of data acquisition
- **OPC** compatible (Kepserver, Applicom, etc.)
- **Integration with different ERP** or multiples sources (databases, flat files, XML, WebServices, etc.)

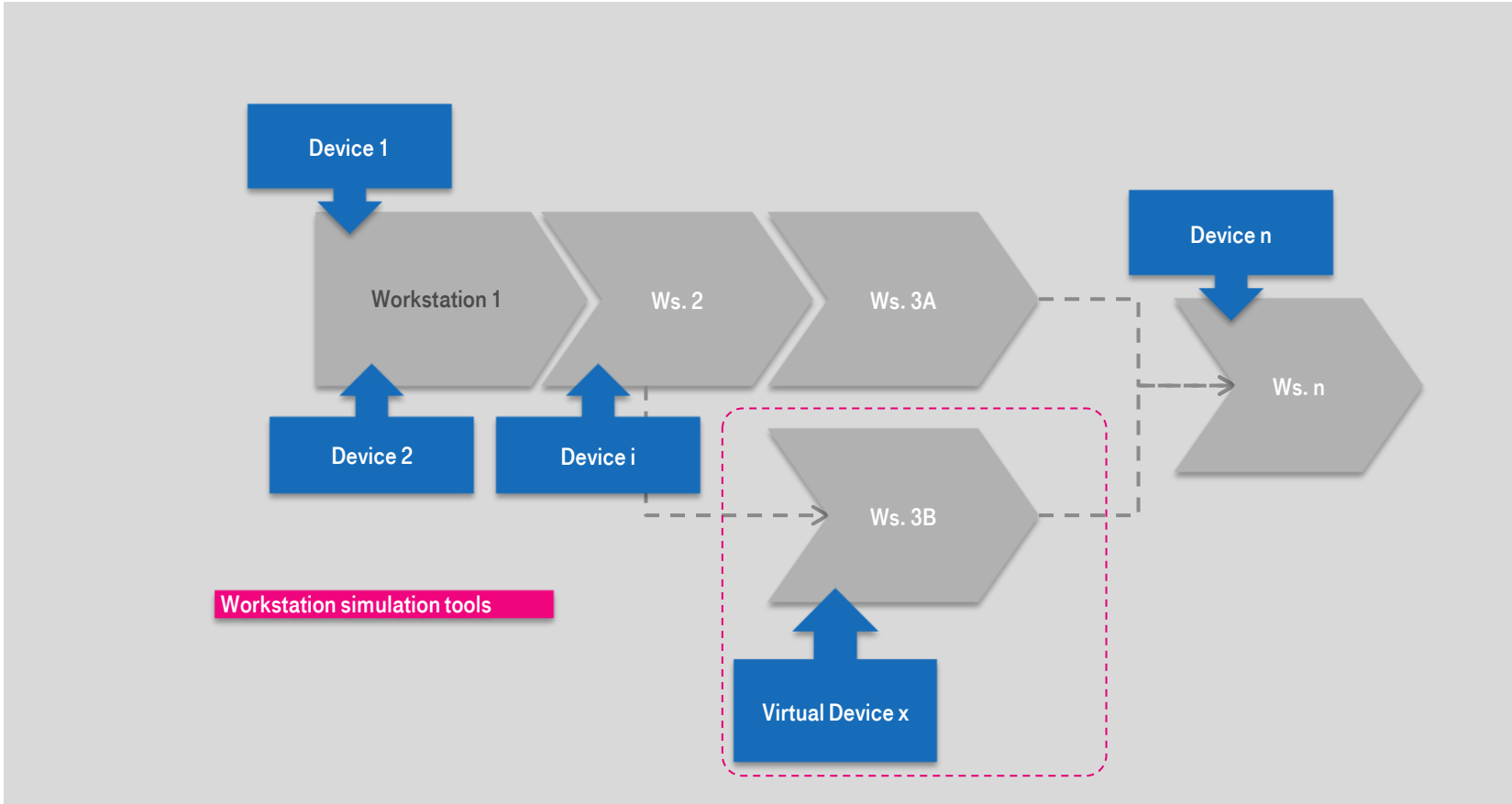
PRODUCT TRACEABILITY

- **Traceability of items** (subassemblies, components and batches) and **environment** (worker, machine process parameters,..)
- **Historical storage** of data (long-term data database)
- **Genealogy and traceability** reports
- **Full traceability** of JIT orders



PROCS

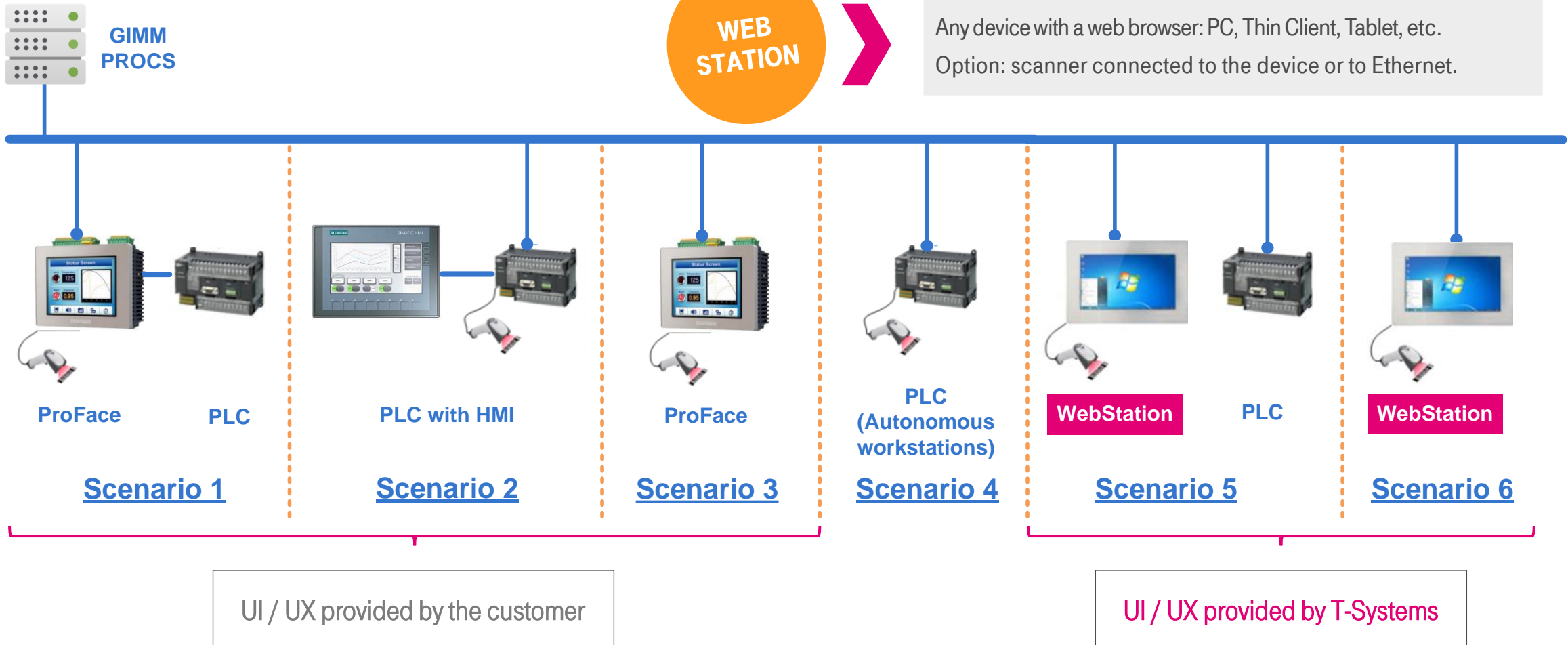
PRODUCTION LINES MODELLING



ANY SCENARIO
COVERAGE

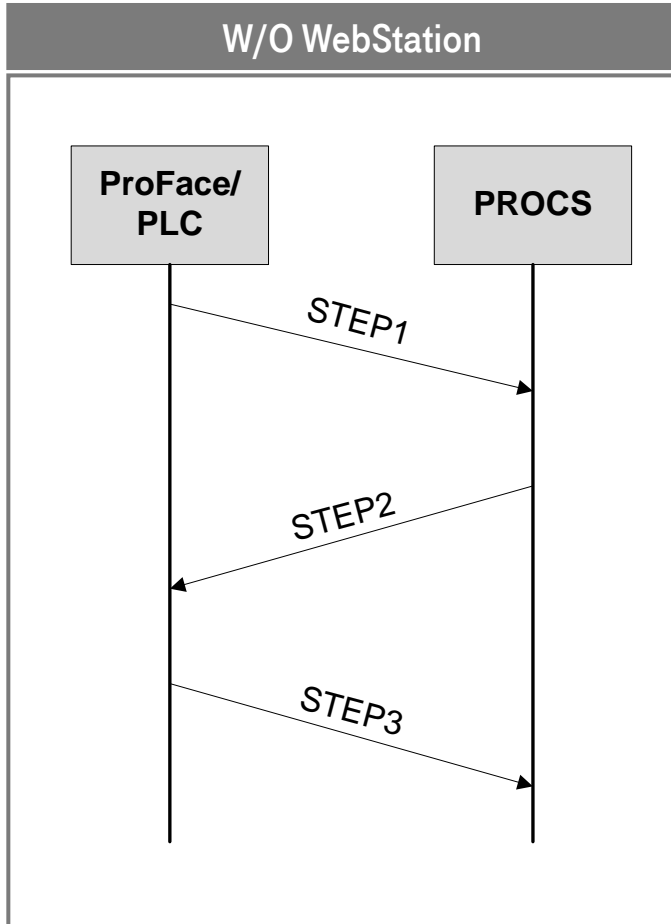
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HADRWARE CONNECTIVITY



PROCS

DATA EXCHANGE PROTOCOL



STEP1

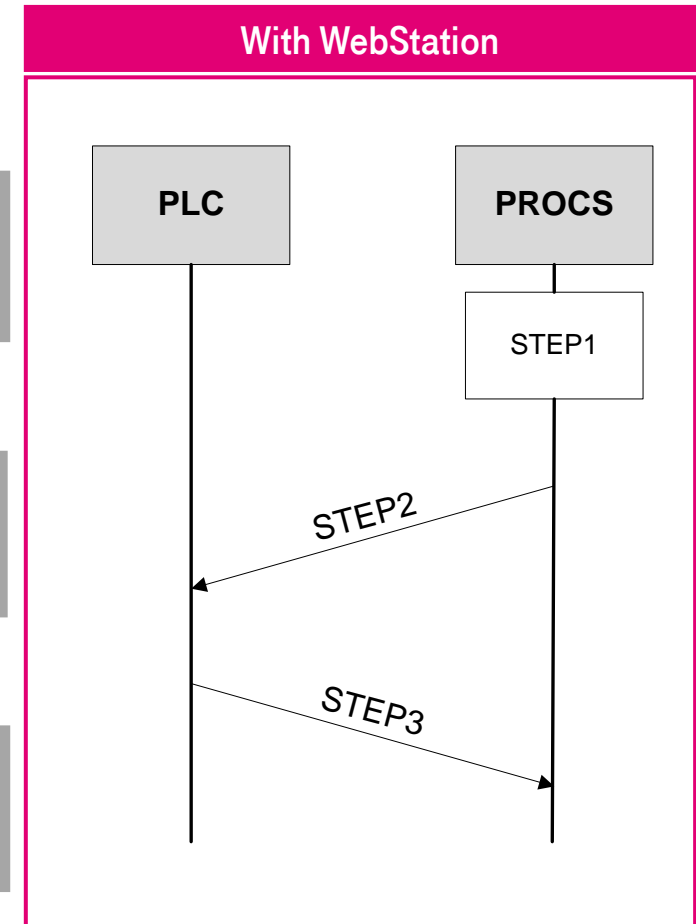
Scan of components barcodes

STEP2

PROCS sends the cycle authorization to the PLC/ProFace (optional, other data).

STEP3

PLC/ProFace sends the result of the operation to PROCS (optional, other data).



PROCS

WEBSTATION SCREENS



W:300010 O:0 S:3 2020/01/30 14:43:36

R:PFA 0 / 2

PROD.STOP

PRODUCTION STOPPED: Machine issue
START: 20/01/30 14:42 MOTIVE: Incident

YDOWNTSTART-INCIDENT

W:300010 O:0 S:3 2020/01/30 14:43:09

R:PFA 0 / 2

READ COMP

WAIT FOR COMPONENTS
READ 1: C1

C1

W:300010 *D* O:0 S:3 2020/01/30 14:44:24

R:PFA 0 / 2

PLC DEGRADED

DEGRADED MODE PLC
ACTIVATED

YDEGRADED-PLC-ON

W:300009 O:0 S:3 2020/04/24 16:39:38

R:FPA 1 - 1

QUALITY CONTROL

YQUALITY-DEF

W:300009 O:0 S:3 2020/04/24 16:41:02

SELECT DEFECT

<input type="checkbox"/>	WS11	Defect 1
<input type="checkbox"/>	WS12	Defect 2
<input type="checkbox"/>	WS13	Defect 3
<input type="checkbox"/>	WS14	Defect 4
<input checked="" type="checkbox"/>	WS15	Defect 5
<input type="checkbox"/>	WS16	Defect 6
<input type="checkbox"/>	WS17	Defect 7

1/2

YQUALITY-DEF OK

W:300009 O:0 S:3 2020/04/24 16:41:37

R:FPA 2 - 2

ITEM WITH DEFECT

REF: FPA ITEM: FPA201150003
DEFECT WS15: Defect 5

YQUALITY-DEF-1005

PROCS

TRACEABILITY DATA

Based on the workstations configured **PROCS** is able to trace all data sent by PLC or any other hardware connected to it. Data like measurements, weights, temperatures, etc. are all stored.

Traceability data can be accessible through pre-configured reports and monitoring tools.



TRACEABILITY =
KNOWLEDGE

CORE
FUNCTIONALITY

PROCS REPORTING



gimm is using Microsoft Reporting Services.

- There is a set of reports pre defined: full traceability of a single part, production between dates.
- New reports can be added depending on customer requirements.
- Reports can be exported to csv file, excel, pdf for internal purposes.

**INTERLINKED
REPORTS**

**STANDARD AND
CUSTOMIZED
REPORTS**

Item Detail: FPDFLDW00084413090212181989

ARTICLE	DESC	CONTAINER	STATUS	FINISH DATE
FPDFLDW000844	FP Door Panel Front Left Driver L494	** NOT PACK **	PRODUCED	9/2/2013 5:52:41 PM

ITEM USED IN

-

Operations

DATE	OPERATION	RESULT	WS	OPERATOR
9/2/2013 5:48:16 PM	LH ASSY SCREWING A	OK	LH FRONT ASSEMBLY SCREWING A	Operator Default
9/2/2013 5:50:10 PM	LH ASSY SCREWING B	OK	LH FRONT ASSEMBLY SCREWING B	user 118 shift C
9/2/2013 5:52:41 PM	LH FINAL CHECK	OK	LH FRONT FINAL CHECK	user 1 shift a

Components

DATE	REF COMPONENT	COMPONENT	WS	DESC
9/2/2013 5:47:00 PM	S-FLDW000192	S- FLDW00019213090212181514	LH FRONT ASSEMBLY SCREWING A	SF Door Panel Fron Left Driver L494
9/2/2013 5:47:35 PM	FD408150	PFD408150	LH FRONT ASSEMBLY SCREWING A	L494 Window NEW bezel DRIVER + blac
9/2/2013 5:49:00 PM	A4C54901	DK62-14B121-BC	LH FRONT ASSEMBLY SCREWING B	L494 harness DK62-14B121-BC DRIVER
9/2/2013 5:49:03 PM	AB408072	PAB408072	LH FRONT ASSEMBLY SCREWING B	L494 FOAM DISC WITH HOLDING FLAPS

Device's Answer

DATE	DEVICE	RESULT	DEVICE NAME
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All

Language: English Use Hot Server: True False

Initial Date: 10/09/2013 Final Date: 11/09/2013

ID Section: All

ARTICLE	DESCRIPTION	CREATED	PRODUCED	SCRAP
FDPFRDW000745	FP Door Panel Front Right Driver L494	0	1	0
FDPFRDW000748	FP Door Panel Front Right Driver L494	0	1	0
FDPFRDW000749	FP Door Panel Front Right Driver L494	0	2	0
FDPFRDW000752	FP Door Panel Front Right Driver L494	0	1	0
FDPRRW001037	FP Door Panel Rear Right L494	0	1	0
FDPRRW001050	FP Door Panel Rear Right L494	0	1	0
FDPRRW001051	FP Door Panel Rear Right L494	0	1	0
FDPRRW001194	FP Door Panel Rear Right L494	0	2	0
SUBTOTAL		0	21	0

Section 13000: STOWAGE ASSY

ARTICLE	DESCRIPTION	CREATED	PRODUCED	SCRAP
FE407355	L405 ASSY STOWAGE FR LH+PENDULUM	9	9	0
FE407360	L405 Assy Stowage FR RH+Pendulum	55	55	0
FG405115	L405 Assy Stowage FR RH	161	151	0
FG405120	L405 ASSY STOWAGE FR LH	107	105	0
SUBTOTAL		332	320	0
TOTAL		332	2282	0

1 / 2

PROCS

BUSINESS ANALYTICS



PROCS allows production data analysis.

- Collection in data cubes of all measures generated for KPI's, counters and downtimes.
- "Pivot grid" controls in order to build custom data views.

ADVANCED REPORTING

PRODUCTION ANALYSIS

The screenshot displays a software interface for production data analysis. It features a pivot table with the following structure:

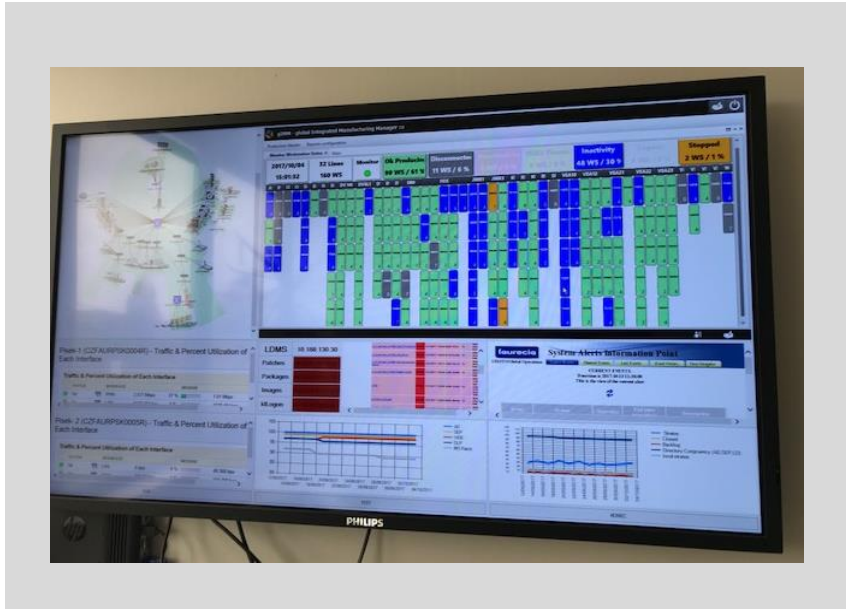
	7/2/2017			7/3/2017			7/4/2017			July Total			Q3 Total			H2 Total		
	Produced	Scrap	Pack	Produced	Scrap	Pack	Produced	Scrap	Pack	Produced	Scrap	Pack	Produced	Scrap	Pack	Produced	Scrap	Pack
UAP3	544	4	0	2784	26	0	2734	30	0	6062	60	0	6062	60	0	6062		
UAP1	1226	0	1388	1870	0	2502	1136	0	1565	4232	0	5455	4232	0	5455	4232		
UAP2	1927	3	1575	5555	3	4830	3933	6	3133	11415	12	9538	11415	12	9538	11415		
DV6L1	1125	0	305	2255	0	732	1486	0	591	4866	0	1628	4866	0	1628	4866		
DV6L3	359	0	357	1033	0	1034	303	0	303	1695	0	1694	1695	0	1694	1695		
VEA12	157	0	245	519	0	513	369	0	367	1045	0	1125	1045	0	1125	1045		
VEA21	158	0	67	518	0	535	273	0	270	949	0	872	949	0	872	949		
VEA22	152	0	148	383	0	326	169	0	173	704	0	647	704	0	647	704		
VEA23	134	0	227	637	0	632	452	0	469	1223	0	1328	1223	0	1328	1223		
VEADP1	69	0	0	712	16	0	478	18	0	1259	34	0	1259	34	0	1259		
VEADP2	298	2	0	872	3	0	494	2	0	1664	7	0	1664	7	0	1664		
VEA10				156	0	209	177	0	186	333	0	395	333	0	395	333		
UAP4 Total	2452	2	1349	7085	19	3981	4201	20	2359	13738	41	7689	13738	41	7689	13738		
All Total	6149	9	4312	17294	48	11313	12004	56	7057	35447	113	22682	35447	113	22682	35447		

PROCS

PRODUCTION LINE MONITORING

PROCS provides tools in real-time for monitoring the data gathered.

- From production line general overview to workstation status details.



REAL TIME

COMPLETE MONITORING SERVICES

2017/07/05 15:24:32	34 Lines 160 WS	Monitor ●	Ok Producing 16 WS / 10 %	Disconnect 11 WS / 6 %	Heartbeat Lt 0 WS / 0 %	PDE3 Timeout 0 WS / 0 %	Inactivity 130 WS / 81	Logout 1 WS / 0 %	Stopped 2 WS / 1 %
DV NEO									
23010	DV NEO STUFFING		Previous Screen						
Stat:	PLC Disconnected 3389 min 47 sec ago		23040	DV NEO LEAKENING		23900 DV NEO REWORK			
Op:	STUFFING		Stat:	Logout 1793 min 58 sec ago		Stat: Workstation stopped			
Ref:	2123214X1		Op:	LEAKENING & ENGRAVING		Op: -			
Item:	2123214X161S170627074913		Ref:	2123200XXX		Ref: -			
Heartbeat:	17/07/03 06:55:37		Item:	2123200XXX61S170628121308		Item: -			
4	17/06/27 07:49:27		Heartbeat:	17/07/05 15:24:28		Heartbeat: 17/05/18 15:19:30			
			4	17/06/29 13:35:00		0 17/05/18 15:19:30			
23020	DV NEO GEOMETRICAL CONTROL		23050	DV NEO HEATSHIELD		23901 DV NEO LEAKTEST REWORK			
Stat:	PLC Disconnected 10490 min 32 sec ago		Stat:	4		Stat: 4			
Op:	GEOMETRICAL CONTROL		Op:	HEATSHIELD CRIMPING & LABELING		Op: <WOC>LEAKENING & ENGRAVING			
Ref:	2123214X2		Ref:	2123200XXX		Ref: 2123200XXX			
Item:	2123214X261S170627124017		Item:	2123200XXX61S170628114415		Item: 2123200XXX61S170628123543			
Heartbeat:	17/06/28 08:34:39		Heartbeat:	17/07/05 15:24:32		Heartbeat: 17/07/05 15:24:31			
7	17/06/27 13:21:49		4	17/06/29 12:53:26		4 17/06/29 12:33:44			
23030	DV NEO WELDING		23600	DV NEO PACKING					
Stat:	4		Stat:	7					
Op:	WELDING		Op:	-					
Ref:	2123200XXX		Ref:	-					
Item:	2123200XXX61S170704071811		Item:						
Heartbeat:	17/07/05 15:24:27		Heartbeat:	17/07/05 15:24:28					
4	17/07/04 07:19:07		7	17/06/28 13:14:31					

PROCS

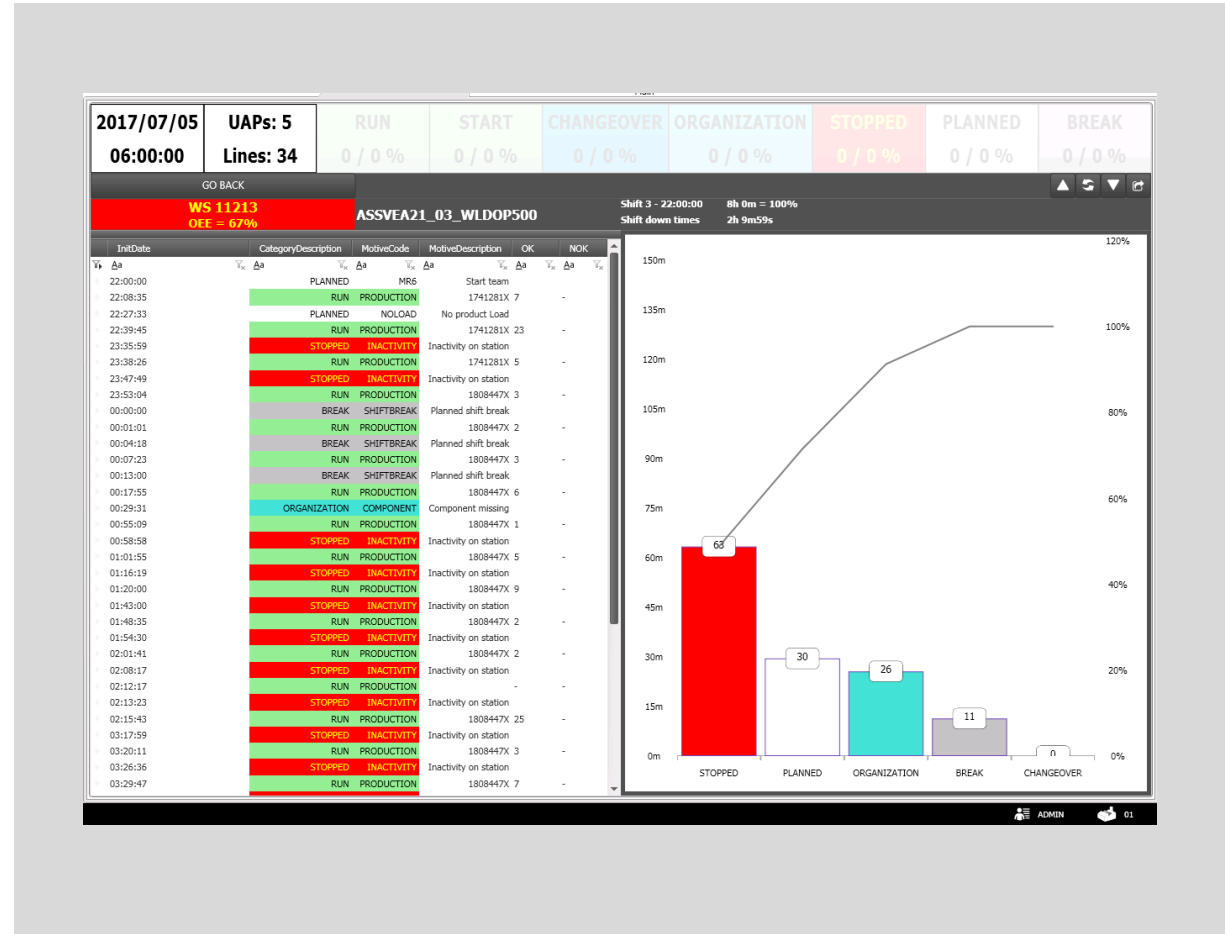
PRODUCTION LINE KPI'S



PROCS provides tools in real-time for analyzing **downtimes** on **Pareto graphic**.

- Planned and unplanned stops
- Custom downtime categories

**DOWNTIMES
ANALYSIS**



A vibrant pink background featuring a dynamic splash of liquid, creating a sense of movement and energy. The splash is centered and radiates outwards, with various droplets and streaks of liquid. The overall color palette is a range of pink tones, from light to deep magenta.

THANK YOU FOR YOUR TIME

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