



1. Motivation
2. Components of solution
3. Characteristic features of PPS
4. Production Planning with PPS



Adding to our high-quality Stoll-Machines, **innovative services** around the knitting process

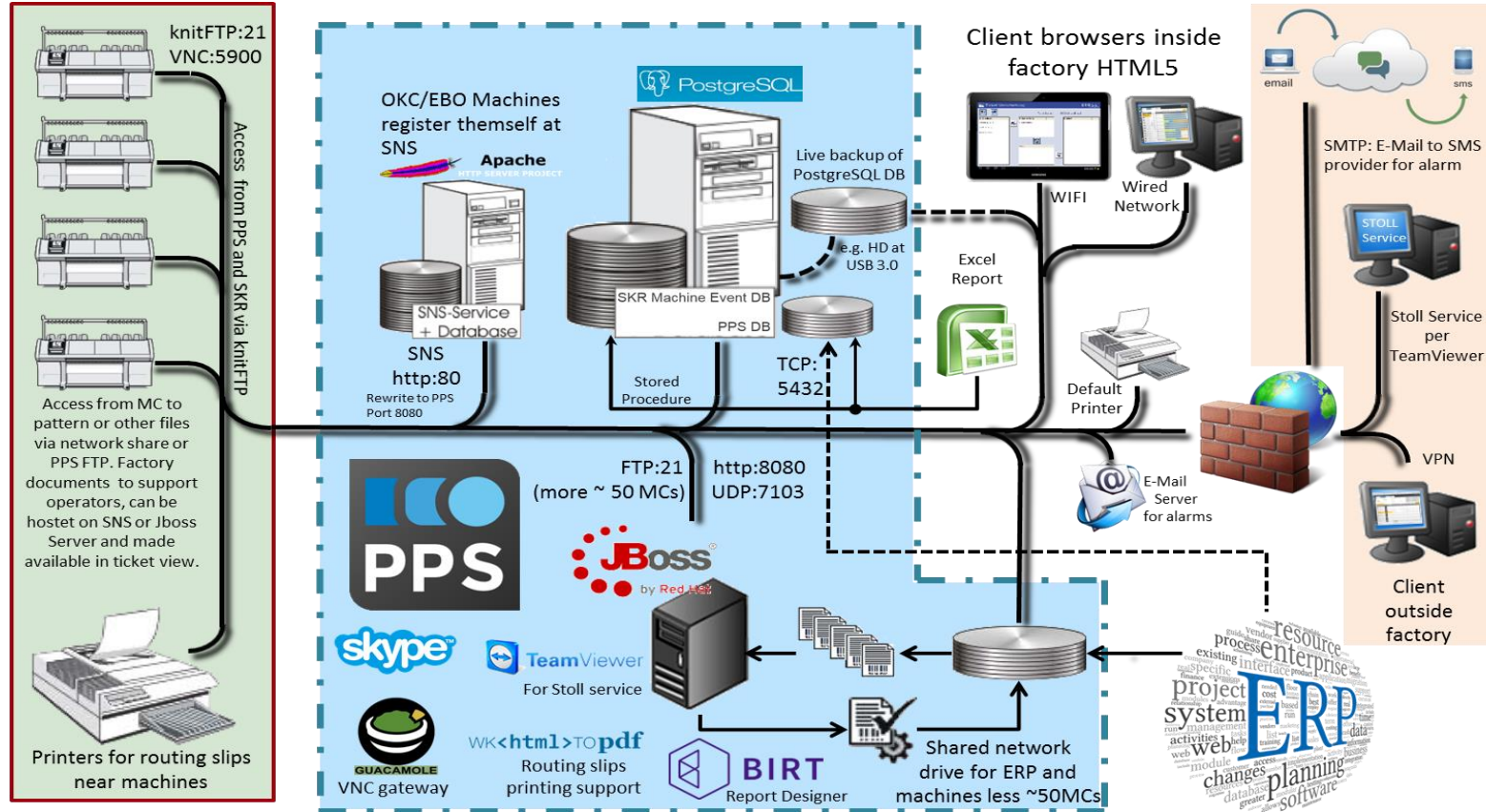
Building up, state of the art, **integrated** solution through the **tool chain M1plus, PPS** and **machine** from one hand

**Surplus value** to increase **productivity** and **reliability**.

- **In time** production satisfies your customers.
- **Optimize** use of **resources** by finding potential.
- Have your **production efficiently organized** and always **under control**.
- **Support** for **maintaining** your **machines**

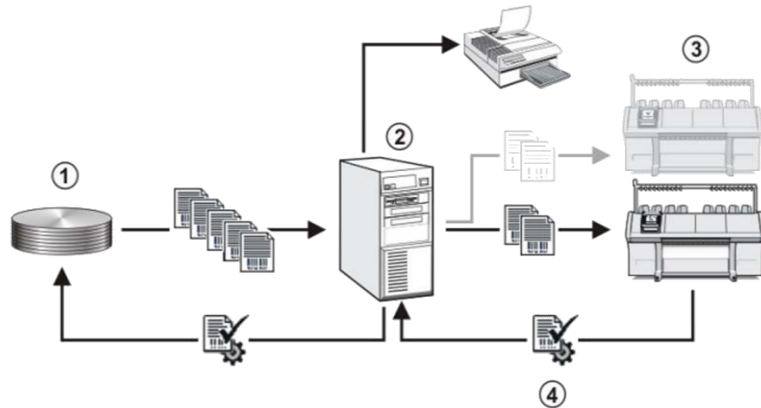


## 2. Topography of PPS



## 2. Components of PPS solution

### – PPS TICKETING WORKFLOW



**File based interface** to ERP.

Two folders Input / Output to exchange order XML/ZIP files (1) (Tickets)

Order **injection** also direct possible to **DB** per **ODBC connection**

**Tickets** are **distributed** to **Machines** (3)

PPS **returns finished** order **tickets** to **ERP** (4)

**Order state** of **single machines** and **summary** of **split order** can be **viewed**

**Orders** can be **redirected** from machine to machine

**Routing cards** can be **printed** (2)



## 2. Components of PPS solution

### VIEW OF TICKET MANAGEMENT AT MACHINE

The screenshot displays the STOLL machine interface for ticket management. The top status bar shows 'CMS530HP MG | 674 | E\_KC\_000.027.000\_STOLL', '1:28 PM | Shift 1 | Yildiz', and 'CMS530.1510088'. The main table lists tickets with their IDs and statuses. A blue box highlights the 'ToDo' column, and red arrows point to the 'ToDo', 'InProgress', and 'Done' statuses. The bottom action bar contains buttons for 'Starten', 'Abbrechen', 'Beenden', 'Anzeigen', 'Bearbeiten', and 'Drucken'. The right-side menu includes options like 'Edit Order', 'Produce Order', 'Maintain Machine', 'Configure Machine', 'Display Operation...', 'Adjustment', and 'Help'. The 'Tickets bearbeiten' button is highlighted in the bottom bar.

Ticket ID	Status
1510089_0003-1	ToDo
1510088_0003-1	ToDo
1510078_0003-1	ToDo
1510088_0001-1	InProgress
1510078_0000-1	Done
1510088_0000-1	Done
1510089_0000-1	Done
1510089_0001-1	Done

Tickets are displayed in the ticket menu

The **current status** is displayed:

Ticket **to do**

Ticket **in Progress**

Ticket **Done**

Ticket information can be displayed with **routing card**

## 2. Components of PPS Solution

### ROUTING CARD

Done Date: 2015-12-16 23:45:44	1234 Da.-Pulli	Knitter: User4 Shift: 4 Machine: CMSADF-3	<b>STOLL</b>
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<b>Ordernumber: DA-Pulli-1234</b>	
Article Number:	1234 Da.-Pulli 1/1-Arm
Deliver Date:	2015-08-31
Collection:	H/W 2015/2016
Kind:	Front part (PT)
Pattern Unit:	M1plus
Machine Typ:	680
Gauge:	E16
Pattern:	DaPulli-1234.seq
Duration per PC [min]:	20
Shape:	
Size:	38
Length [cm]:	70
Width [cm]:	56
Weight [g]:	200


  

<b>Description</b>	
Da-Pulli from 12er CMS530 with intarsia motives in FP and Arm, RP sleek RL, short tube wristbands, with wide turtle neckline. Customer: 687766 Stoll Fashion Technology Customer-Order-Num: 96765432 Customer-Art-Num: 1410119 Deliver Date: 2015-08-31	

<b>Yarn Feeder Assignment</b>								
YFeeder L	YFeeder R	Yarn Manuf	Quality	Len No	Thread Count	Color Num	Color Name	Lot Number
1	TVU	TVU	Separator Thread					
2	TVU	TVU	Elastic Thread					
>3< >4<	TVU	Ocean	32/2	2	240	cognac	123456	
>5<	TVU	Ocean	32/2	2	460	orange	789012	
>6<	TVU	Ocean	32/2	2	505	bambus	345678	
>7<	TVU	Ocean	32/2	2	125	mocca	901234	
>4<	TVU	Ocean	32/2	2	115	hellbeige	456789	

<b>Operator Reportings-Back</b>		<b>Barcode</b>
Label	Report	
Yarnchanges	12	
Humidity	65	
Temperature	26	
Power outages	2	
Yarn rips	2	
Defective parts	3	

<b>Preexecuted Command Results</b>		
Command	Parameter	Result
Direct Command	&E2000-	Ok
Direct Command	Al P13	Failed

Can be **printed in advance** to production or better **automated** just **after production** with **actual data** of production

Layout can be **styled** with XSL file as **desired**

Since **ticket** can be **viewed** in **machine browser**, **links** can be used to **provide additional infos** to the **operator**

## 2. Components of PPS Solution

### WEB LINKS

Back

Quality assurance

STOLL

Task: Please check the size 1, 2, 3 and 18 of the knit and note the deviation in the user tags of the ticket

Sommer 2016

**M** J. Maier  
Herr Kaiser

Eingesetzter Arm aus XY- -Wolle

Technical drawing of a garment with dimensions and labels. The drawing shows a front view of a garment with various measurements: 16, 12, 40, 40, 50, 70, 16, 12, 40, 40, 50, 70, 16, 12, 40, 40, 50, 70. Labels include: Stufung 2 \ 8, 2-2-3 \ 8 < > 6, 0-20-1, 3-6-1 \ 8 < > 6, 2-6-3 \ 8 < > 6, 2-5-3 \ 8 < > 6, 4-2-1 \ 8 < > 6, 2-7-1 \ 8 < > 6, 6-2-2 \ 8 < > 6, 4-2-3 \ 8 < > 6. Other labels: Höhe: 20 cm, Breite: 182 cm, RSL = 10.

Done Date: 2014-12-16 23:46:44

1234 Da.-Pulli

Knitter: User4 Shift: 4 Machine ID: MyMcName

STOLL

Ordernumber: DA-Pulli-1234

Article Number: 1234 Da.-Pulli 1/1-Arm

Deliver Date: 2015-05-31

Collection: H/W 2015/2016

Kind: Front part (PT)

Pattern Unit: Mplus

Machine Type: 621

Gauge: E7.2

Pattern: DaPulli-1234.seq

Duration per PC (min): 20

Crop: 1028

Size: 38

Length (cm): 70

Width (cm): 56

Weight (g): 200

Photo of a person wearing the garment, showing the front view.

Description

Da-Pulli from 12er CM550 with intarsia motives in FP and Arm, RP seek R/L, short tube wristbands, neck with wide turtle neckline.

Customer: 887766 - Peter nahn

Customer-Order-Num: 8876432

Customer-Art-Num: 01234-56789

Deliver Date: 2015-05-31

Yarn Feeder Assignment

Feeder	Feeder R	Yarn Manuf	Quality	Len (m)	Thread Count	Color Num	Color Name	Yarn Lot Num
1		TVU	Separator Thread					
2		TVU	Elastic Thread					
3,4		TVU	Ocean	32/2	2	240	cognac	123456
5		TVU	Ocean	32/2	2	450	orange	789012
6		TVU	Ocean	32/2	2	505	bamboo	345678
7		TVU	Ocean	32/2	2	125	mooca	901234
8		TVU	Ocean	32/2	2	115	hellbeige	456789

Operator Reportings-Back

Label	Report
Yarnchanges	12
Humidity	65
Temperature	26
Power outages	2
Yarn rips	2
Defective parts	3

Barcode

1 234567 890123

Preexecuted Command Results

Command	Parameter	Result
Direct Command	AE2000-	OK
Direct Command	AL-1	Failed

Web Links can be added to the ticket

Additional information's can be displayed for the operators like measures of knit

Knitting information can be viewed paperless. This will reduce the distribution time, printing effort and will be much more fail save.



## 2. Components of PPS solution

- ORDER DONE WITH POSSIBILITY OF REPORTINGS BACK

The screenshot displays the 'Ticketdaten bearbeiten' (Edit Ticket Data) interface from the STOLL system. The ticket number is 1110089\_VT\_0000-1. The interface is divided into two main sections: 'Produktionsdaten' (Production Data) and 'Kundendaten' (Customer Data), both highlighted with red boxes. The 'Produktionsdaten' section contains a list of fields with their values, including 'ARTICLE\_NUM' (Sleeveless Fully Fashioned), 'COMPUTER\_NAME', 'CURRENT\_SHIFT', 'CUSTOMER\_ID' (ITMA 2015), 'DONE\_EXECUTIONS', 'EARLIEST\_EXECUTION\_I' (2015-07-20T10:21:00), 'ESTIMATED\_ORDER\_DUF7', 'MACHINE', and 'MACHINE\_IP'. The 'Kundendaten' section shows a list of choices: '1 1st Choice', '2 2nd Choice', '3 Faulty', and '4 Production stop'. Below these sections, there is a status bar with various indicators: '>> ST= 1/1', 'RS4= 51/88', 'SP', 'WMF 1', 'WM=3.5', 'T= 48', 'L 194', 'MSEC= 0.30', 'VP=R2', and 'REC MM'. At the bottom, there is a navigation bar with icons for back, forward, search, and other functions.

Name	Wert
ARTICLE_NUM	Sleeveless Fully Fashioned
COMPUTER_NAME	
CURRENT_SHIFT	
CUSTOMER_ID	ITMA 2015
DONE_EXECUTIONS	
EARLIEST_EXECUTION_I	2015-07-20T10:21:00
ESTIMATED_ORDER_DUF7	
MACHINE	
MACHINE_IP	

Nr.	Name	Wert
1	1st Choice	
2	2nd Choice	
3	Faulty	
4	Production stop	

1st Choice

>> ST= 1/1 RS4= 51/88 SP WMF 1 WM=3.5  
T= 48 L 194 MSEC= 0.30 VP=R2 REC MM

You can edit and **create your own Reporting Back Data** with the Ticket Edit menu

**Values** can be **changed** during production by the **operator**

Production relevant **standard data** will be **stored automatically** in the ticket

**Data** will be **stored in the tickets** and information can be **used** for **further analyses**

## 2. Components of PPS solution

- CUSTOMIZED EVENTS CAN BE INDIVIDUALLY DEFINED

The screenshot displays the 'Knit Report events' interface from STOLL. It features two overlapping dialog boxes. The background dialog, titled 'Enter stop reason', contains fields for 'User/MCPIN', 'StollService' (masked with \*\*\*\*), 'Production Id' (5489797654), 'Stop Code' (451), and a 'Comment' field with the text 'Yarn rip'. The foreground dialog, titled 'Qualify produced pieces', contains fields for 'User/MCPIN', 'StollService' (masked with \*\*\*\*), 'Production Id' (5489797654), 'Pieces Code' (50), 'Quantity' (10), and a 'Comment' field with the text 'Yarn color deviation'. At the bottom of the foreground dialog are two buttons: a back arrow and a checkmark with a back arrow.

You can **define customized user events**.

When triggered, an **individualized dialog pops up** and request information's.

3 predefined field **User\MCPIN**, **Production Id** and **comment** can be used in combination with three additional input fields. All **fields** can be **individually labeled** as required.

The **information** will be **logged** in **database** and can be evaluated e.g. to optimize production, generate additional orders or dynamically release production.

## 2. Components of PPS solution

### – STITCH NAMING SERVICE SNS

Nameserver KM.ON

Go to Group: 01\_Showroom

Move to Group: 01\_Showroom

Network Name	IP Address	Unit Type	Software Version	HD Image	Machine	Machine No	Location	Description
01_Showroom								
01_ADF53016E352	172.25.110.108	MC	E_EKC_000.165.000_STOLL	P16_PRI_007.002.074	ADF530-16 MG E3.5.2	68500000004		
02_ADF32BWF18	172.25.110.36	MC	E_EKC_000.166.000_STOLL	P16_PRI_007.002.074	ADF530-32W E18	68800000141		
03_CMS330HP E72	172.25.110.35	MC	E_EKC_000.166.000_STOLL	P16_PRI_007.002.074	CMS330HPW MG E7.2	69500000014		
05_ADF16BW14-12	172.25.110.14	MC	E_OKC_003.283.003_KIMMERLEA	P12_005.002.016	CMSADF16W E14	68400000001		
06_CMS520C E152	172.25.110.33	MC	E_EKC_000.164.000_STOLL	P16_PRI_007.002.074	CMS520C+ MG E1.5.2	67200000006		
07_CMS502HPE352	172.25.110.3	MC	E_EKC_000.167.000_STOLL	P16_PRI_007.002.074	CMS502HP+ MG E3.5.2	66800000175		
08_CMS530HP 72	172.25.110.87	MC	E_EKC_000.167.000_STOLL	P16_PRI_007.002.074	CMS530HP MG E7.2	67000000231		
10_CMS530HP E72	172.25.110.64	MC	V_OKC_006.002.007_STOLL	P12_005.002.016	CMS530HP MG E7.2	64200000674		
117_59100000001	172.25.110.27	MC	E_EKC_000.167.000_STOLL	P16_PRI_007.002.074	CMS730T E7.2	59100000001		
03_Service_216								
01_ADF-3 E72 SC	172.25.110.13	MC	E_OKC_003.284.000_STOLL	P12_005.002.016	CMSADF32W MG E7.2	68600000005	SC 216	
ADF530 E80 216	172.25.110.16	MC	E_EKC_000.145.000_STOLL	P16_PRI_007.002.074	ADF530-32W MG E7.2	68800000003		
SC_CMS530HPB 72	172.25.110.58	MC	E_OKC_003.284.001_WOLF_M	P12_005.002.018	CMS530HPB+MG E7.2	64200202280	SC 216	
SC_CMS530HP E72	172.25.110.70	MC	E_OKC_003.282.031_ULBRICHT	P12_005.002.016	CMS530HP MG E7.2	64200000714	SC 216	
Production Devices								
Simulated Machines								
Testraum								
SC_TEST_OKC	172.25.110.29	MC	E_OKC_003.270.000_STOLL	P7C_002.007	CMS740KW E7.2	57200000001		Steuerschrank im SC-Testraum

Holds profile for each device

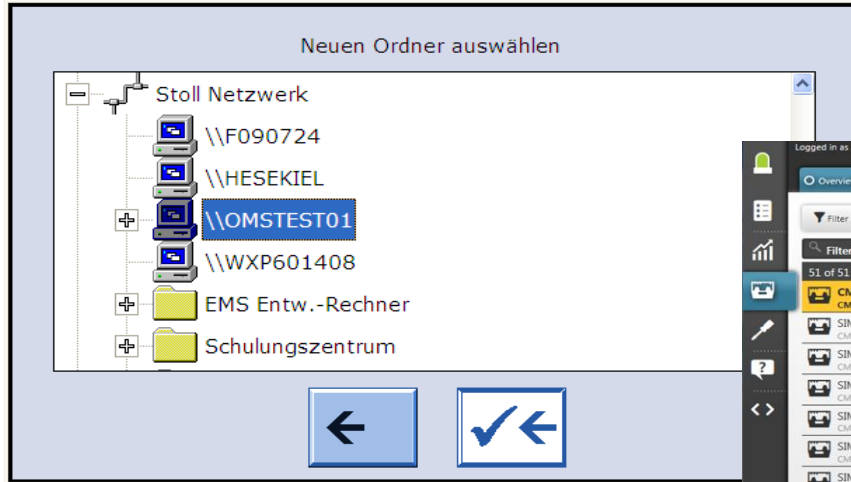
Profile is shared with other SW solutions

SNS eases access to devices and is faster than MS computer browser service

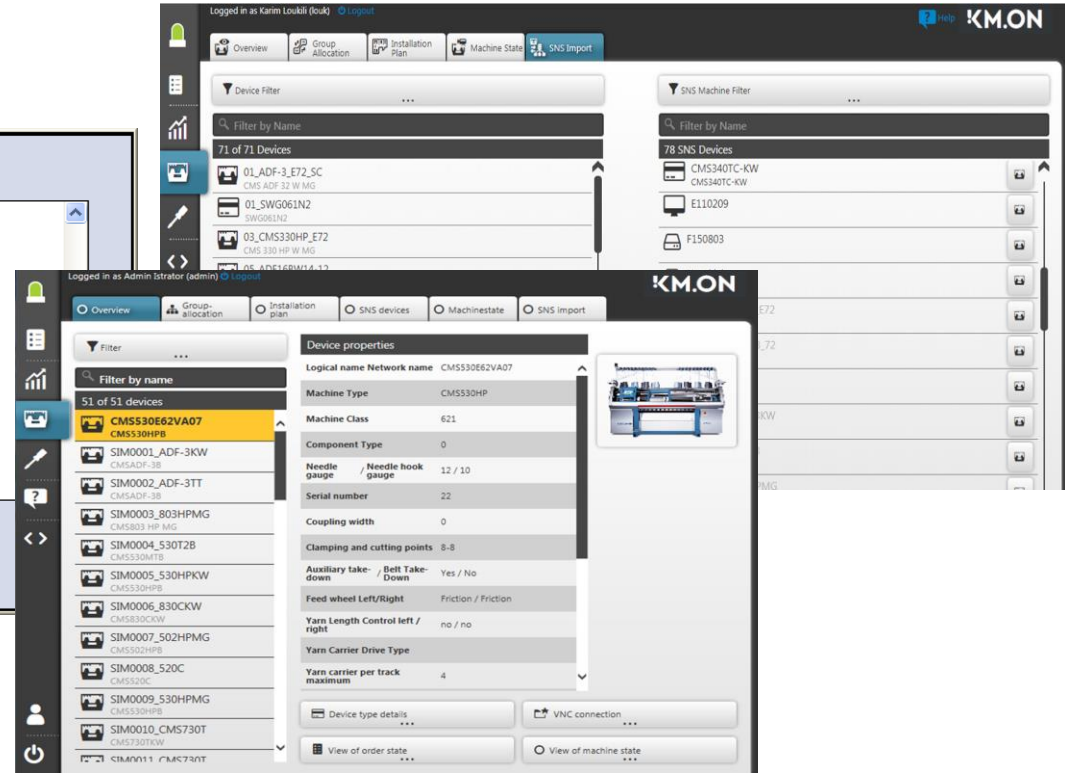
Stoll knitting machines add themselves to SNS

## 2. Components of PPS solution

### SNS IN USE



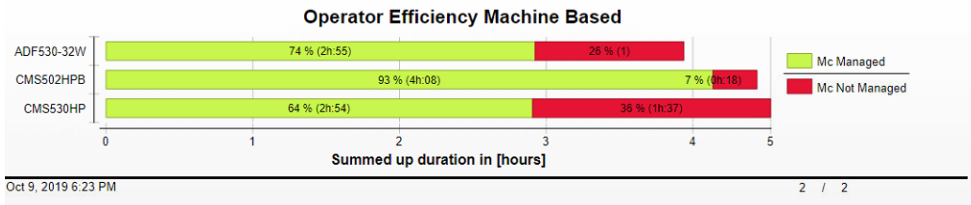
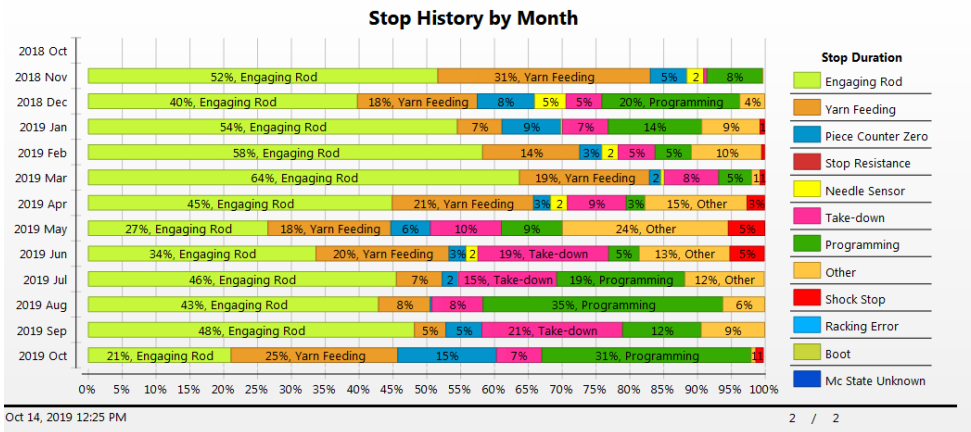
Pattern folder selection at machine shows only devices in Stoll Network



Import of machine in PPS  
Properties view of machine in PPS

## 2. Components of PPS solution

### Reports mit SKR3



**SKR3 will collect all machine and user data automatically**

**Integrated solution delivers reliable data without cost of additional sensor hardware**

**Data analysis can be performed quickly and individually**

**Data can be exported or accessed directly in data base**

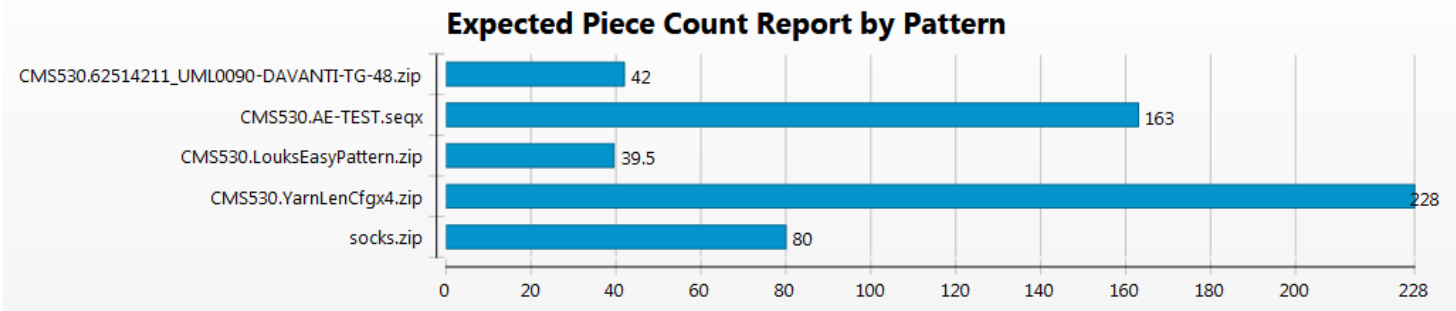
**Production bottlenecks can be located and optimized to reduce waste, save energy, be more sustainable, optimize employment of stuff**

### Reports with SKR3

**Expected production output** can be determined based on patterns, machines, time, article and other criteria

#### Expected Piece Count Report by Pattern

2019-10-14 - 2019-11-14





## 2. Components of PPS solution

### Production Report Machines

SIM_1000_E090212		MC-Id		1464020398	
Sequence	""	StartTime	Jul 2, 2016 2:04 PM		
Pattern	Muster_50	EndTime	Jul 2, 2016 2:49 PM		
Shift	1, 2	Duration	00:44:35		
UserState	-1	KnitDuration	00:22:17		
SintralState	-1	TimeAdjust	00:00:00		
UserName	StollService	Complete	1		
AggTicketData					
TicketType	CustomerId	ArticleId	ProductionId .ProductionSub1Id .ProductionSub2Id	TicketUid	
AutoProduction,	MyCustomer_ID,	1234 Da.-Pulli 1,	DA-Pulli-1234_18318240703 .PRODUCTION_SUB1_ID .PRODUCTION_SUB2_ID,	-8693036412024000000,	
SIM_1000_E090212		MC-Id		1464020398	
Sequence	""	StartTime	Jul 2, 2016 2:49 PM		
Pattern	Muster_50	EndTime	Jul 2, 2016 3:11 PM		
Shift	2, 3	Duration	00:22:18		
UserState	-1	KnitDuration	00:22:18		
SintralState	-1	TimeAdjust	00:00:00		
UserName	StollService	Complete	1		
AggTicketData					
TicketType	CustomerId	ArticleId	ProductionId .ProductionSub1Id .ProductionSub2Id	TicketUid	
AutoProduction,	MyCustomer_ID,	1234 Da.-Pulli 1,	DA-Pulli-1234_18318240703 .PRODUCTION_SUB1_ID .PRODUCTION_SUB2_ID,	-8693036412024000000,	
SIM_1000_E090212		MC-Id		1464020398	
Sequence	""	StartTime	Jul 2, 2016 3:11 PM		
Pattern	Muster_50	EndTime	Jul 2, 2016 3:33 PM		
Shift	3, 4	Duration	00:22:18		
UserState	-1	KnitDuration	00:22:18		
SintralState	-1	TimeAdjust	00:00:00		
UserName	StollService	Complete	1		
AggTicketData					
TicketType	CustomerId	ArticleId	ProductionId .ProductionSub1Id .ProductionSub2Id	TicketUid	
AutoProduction,	MyCustomer_ID,	1234 Da.-Pulli 1,	DA-Pulli-1234_18318240703 .PRODUCTION_SUB1_ID .PRODUCTION_SUB2_ID,	-8693036412024000000,	
Oct 17, 2019 9:07 AM					
				1 / 4	

**Produktionsreport** obtains informations, how **each piece** was produced

## 2. Components of PPS solution

### Pattern Statistic Report

Grouped by

Pattern

Pattern	ADF-72-FDF-REIN-RAUS	Sequence	""
StartTime	May 9, 2019 2:12 PM	SumDuration	88:07:23
EndTime	May 13, 2019 6:42 AM		
KnitCount	6	BreakCount	3
SumKnitDuration	00:24:10	SumBreakDuration	00:17:19
AverageKnitDuration	00:04:01.666667	AverageDuration	14:41:13.833333
MinKnitDuration	00:03:09	MinDuration	00:06:27
MaxKnitDuration	00:04:49	MaxDuration	70:30:27
UserName	StollService	Shift	5
UserData	-1	SintrialState	-1
Machine	025_68800000001	MC-Id	1518530493

#### AggTicketData

TicketType	CustomerId	ArticleId	ProductionId .ProductionSub1Id ..ProductionSub2Id	TicketUid
NoTicketUsed,	,	,	,	0,

Pattern	BELASTUNGSTEST-48ETT-V9	Sequence	""
StartTime	Jan 15, 2019 10:08 AM	SumDuration	16:48:33
EndTime	Jan 21, 2019 9:50 AM		
KnitCount	1	BreakCount	2
SumKnitDuration	16:48:09	SumBreakDuration	30:03:25
AverageKnitDuration	16:48:09	AverageDuration	16:48:33
MinKnitDuration	16:48:09	MinDuration	16:48:33
MaxKnitDuration	16:48:09	MaxDuration	16:48:33
UserName	StollService	Shift	5
UserData	-1	SintrialState	-1
Machine	025_68800000001	MC-Id	1518530493

Oct 16, 2019 4:10 PM

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**Pattern statistic to obtain average-, minimum-, maximum-, overall-production time and thus for breaked pieces**

## 2. Components of PPS solution

### StopStatistic Machines

MachineName	04_530KIMG_72	Event	Event Count	State Count	Duration
MC-Id	1554385270				
Shift	1, 2	Run	0	0	00:00:00
UserName	"Stoll Service"	Stop	0	1	72:00:06
CustomId	Stoll	Engaging	0	0	00:00:00
ArticleId	1110095	YarnFeed	0	0	00:00:00
ProductionId	Showroom	PieceCounterZero	0	0	00:00:00
ProductionSub1Id	04_CMS530HP_MG_E7.2	Resistance	0	0	00:00:00
ProductionSub2Id	""	PositionNeedleSensor	0	0	00:00:00
Sequence	""	TakeDown	0	0	00:00:00
Pattern	devore	Programming	0	1	72:00:06
TicketUid	1699174868766518878	Other	0	0	00:00:00
StartTime	Sep 1, 2019 12:00 AM	Shock	0	0	00:00:00
EndTime	Sep 4, 2019 12:00 AM	Racking	0	0	00:00:00
OverallDuration	72:00:06	NoData	0	0	00:00:00
TimeAdjust	-00:00:06	Off	0	0	00:00:00
		Boot	0	0	00:00:00
		McStateUnknown	0	0	00:00:00

MachineName	07_502HP_E252	Event	Event Count	State Count	Duration
MC-Id	1560238671				
Shift	1, 2	Run	1	1	00:00:01
UserName	"Stoll Service"	Stop	1	2	71:59:59
CustomId	Stoll	Engaging	1	2	71:59:59
ArticleId	1110095	YarnFeed	0	0	00:00:00
ProductionId	Showroom	PieceCounterZero	0	0	00:00:00
ProductionSub1Id	07_CMS502HP+_MG_E2.5.2	Resistance	0	0	00:00:00
ProductionSub2Id	""	PositionNeedleSensor	0	0	00:00:00
Sequence	""	TakeDown	0	0	00:00:00
Pattern	1110095-2	Programming	0	0	00:00:00
TicketUid	1699207028407890204	Other	0	0	00:00:00
StartTime	Sep 1, 2019 12:00 AM	Shock	0	0	00:00:00
EndTime	Sep 4, 2019 12:00 AM	Racking	0	0	00:00:00
OverallDuration	72:00:00	NoData	0	0	00:00:00
TimeAdjust	00:00:00	Off	0	0	00:00:00
		Boot	0	0	00:00:00
		McStateUnknown	0	0	00:00:00

Stop statistik, to obtain durations of single stop reasons

## 2. Components of PPS solution

### Event List

Uid (1)	Starting mark of evaluation period	MachineName	SIM_1000_E090212
TimeStamp	Jul 2, 2016 2:05 PM	UserStateTxt	
EventTypeTxt	SKR central unit	UserState	-1
EventType	0	SintralState	-1
EventId	1	UserName	StollService
EventParam	<Begin>	FlagSlow	f
SeqPatternName	Muster_S0	FlagLongstroke	f
MC-Id	1464020398	Carriage1	t
ShiftState	2	Carriage2	f
		SlowdownSpeed	100
TicketData	TicketType	AutoProduction	
	CustomerId	MyCustomerId	
	ArticleId	1234 Da.-Pulli 1	
	ProductionId	DA-Pulli-1234_18318240703	
	ProductionSub1Id	PRODUCTION_SUB1_ID	
	ProductionSub2Id	PRODUCTION_SUB2_ID	
	PpsTicketUid	-8693036412024000000	
Uid (2)	Shift modified	MachineName	SIM_1000_E090212
TimeStamp	Jul 2, 2016 2:21 PM	UserStateTxt	
EventTypeTxt	Metadata	UserState	-1
EventType	1	SintralState	-1
EventId	5	UserName	StollService
EventParam	1	FlagSlow	f
SeqPatternName	Muster_S0	FlagLongstroke	f
MC-Id	1464020398	Carriage1	t
ShiftState	1	Carriage2	f
		SlowdownSpeed	100
TicketData	TicketType	AutoProduction	
	CustomerId	MyCustomerId	
	ArticleId	1234 Da.-Pulli 1	
	ProductionId	DA-Pulli-1234_18318240703	
	ProductionSub1Id	PRODUCTION_SUB1_ID	
	ProductionSub2Id	PRODUCTION_SUB2_ID	
	PpsTicketUid	-8693036412024000000	

**Basis Report** biete Grunddaten für **eigene Analysen**

Alle **Reports** können **automatisiert** per **Aufruf** von **Stored Procedure** genutzt werden

## 2. Components of PPS solution

Get Stop History

☐ Auto Create Sec DB

Total Records  
8

Current Start Index  

1

☒ Format Column

Grouping

All

Machine

Shift

UserName

Pattern

Sequence

PPS\_PRODUCTION\_ID

PRODUCTION\_ID

PRODUCTION\_SUB1\_ID

PRODUCTION\_SUB2\_ID

CUSTOMER\_ID

ARTICLE\_ID

Day

Week

Production ID

ProdSubID1

ProdSubID2

CustomerID

SeqName

PatternName

20Z200Ndl-CMS  
2110021  
280Ndl-R-R-CMS  
40Z200Ndl-CMS  
515Nadeln  
515Nadeln-3

Shift

All  
1  
2  
3

SintralState

	AGG MC NAME	AGG USER NAME	AGG SEQ NAME	AGG PATTERN NAME	START_TIME	END_TIME	OVERALL DURATION	OVERALL DURATION WHILEMCON	TIME ADJUST	RUN DURATION	STOP DURATION	EFFICIENCY INCLUDING POWER OFF PC	STOP DURATION WHILEMCON	ENGAGING DURATION	YARN FEED DURATION	PIECE COUNTER ZERO DURATION	RES
20	{01_JU_530_E72}	{Bill}	{""}	{Redflag-CMS530_Band-Produktion_V2}	17.12.2020 07:00	17.12.2020 18:00	11:00:00	11:00:00	00:00:00	10:56:01	00:03:59	99,39646465	00:03:59	00:03:59	00:00:00	00:00:00	
21	{02_JU_530_E72}	{Bill}	{""}	{Redflag-CMS530_Band-Produktion_V2}	17.12.2020 07:00	17.12.2020 18:00	11:00:00	11:00:00	00:00:00	08:15:54	02:44:06	75,13636364	02:44:06	00:03:24	02:40:23	00:00:00	
22	{03_JU_530_E72}	{Bill}	{""}	{Redflag-CMS530_Band-Produktion_V2}	17.12.2020 07:00	17.12.2020 18:00	11:00:00	11:00:00	00:00:00	10:51:12	00:08:48	98,66666667	00:08:48	00:02:18	00:00:22	00:00:00	
23	{04_JU_530_E72}	{Bill}	{""}	{Redflag-CMS530_Band-Produktion_V2}	17.12.2020 07:00	17.12.2020 18:00	11:00:00	11:00:00	00:00:00	10:07:47	00:52:13	92,08838384	00:52:13	00:04:51	00:14:24	00:00:00	
24	{05_JU_530_E72}	{Bill,Operator}	{""}	{Redflag-CMS530_Band-Produktion_V2}	17.12.2020 07:00	17.12.2020 18:00	11:00:00	11:00:00	00:00:00	10:59:43	00:00:17	99,95707071	00:00:17	00:00:17	00:00:00	00:00:00	
25	{06_JU_530_E72}	{Bill}	{""}	{Redflag-CMS530_Band-Produktion_V2}	17.12.2020 07:00	17.12.2020 18:00	11:00:00	11:00:00	00:00:00	09:08:08	01:51:52	83,05050505	01:51:52	00:00:34	00:09:40	00:00:00	
26	{07_JU_530_E72}	{Bill}	{""}	{Redflag-CMS530_Band-Produktion_V2}	17.12.2020 07:00	17.12.2020 18:00	11:00:00	11:00:00	00:00:00	10:50:53	00:09:07	98,61868687	00:09:07	00:00:23	00:00:00	00:00:00	

CreateSecDB

help

EventList

ProductionReport

PatternStatistic

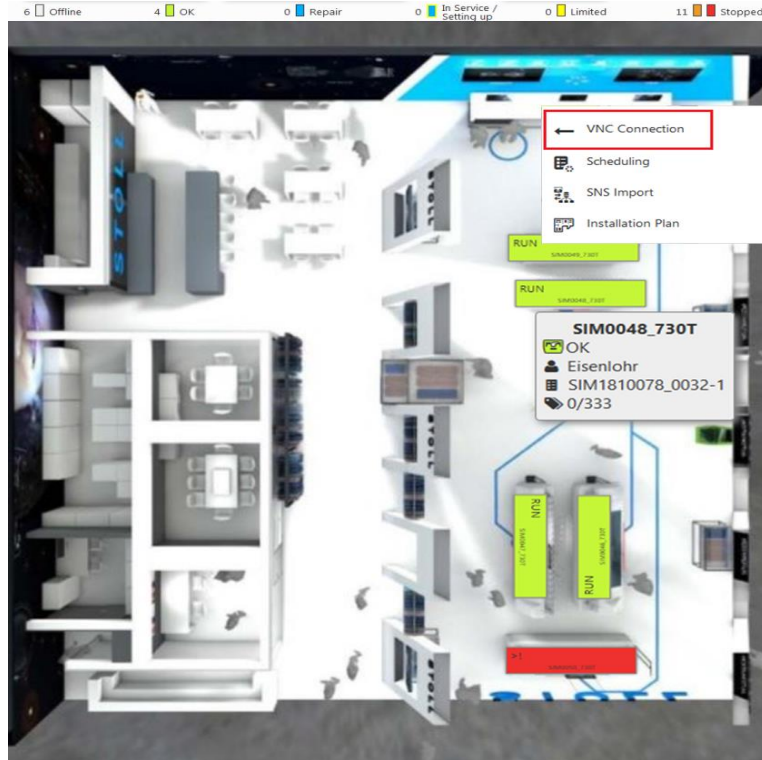
StopStatistic

StopHistory

EfficiencyReport ...

The provided excel report allows the execution of SKR reports in a classic format

### 3. Characteristic feature of PPS



**Real time monitoring** of machine states

**Graphical view** of machinery locations

**Popup with detailed information** like who is operating machine, which order is running, how many pieces are produced...

**Multiple Workshops** with machine state display

**True to scale, vector** based image loadable



### 3. Characteristic feature of PPS

## Comprehensive **production planning** and simulation



Take over of orders from **ERP-System**

Realistic planning based on **operation calendar**

Calculation of **production capacity**

Powerful **Auto-Production** mode to automate distribution and production

**Filters** to ease the **finding** of matching machines or looking for **orders**

### 3. Schedule Order Automatically

The screenshot displays the STOLL KM.ON Scheduling interface. The top navigation bar includes 'State', 'Scheduling', 'Templates', and 'Company Calendar'. The left sidebar contains 'Orders', 'Reports', 'Devices', 'Configuration', and 'Decrease Menu'. The main area shows a list of 88 of 544 orders on the left and a device scheduling grid on the right. The grid shows 20 of 1007 devices with a time axis from 03 PM to 12 PM. A 'Schedule Manual' dialog box is open, showing options for 'Split', 'Fast Execution', and 'Distribute Evenly'. The dialog also includes input fields for 'at least pieces per device' (set to 3) and 'at most devices' (set to 5).

Two scheduling algorithms available

- Fast execution and even distribution

- Pieces per machine and at most devices can be setup as parameter

### 3. Get production capacity

Logged in as Karim Loukili (louk) [Logout](#)

State | **Scheduling** | Templates | Company Calendar

Order: AutoDistrTest3  
Estimated Duration per Piece [min]: 20 Minutes  
Earliest Date of Execution: 06/06/2016 02:39 PM  
Article Number:  
Latest Date of Execution: 07/08/2016 03:00 PM  
Pattern File: CMS530.AE-TEST.seqx


Piece Number: 0 / 25000  
**Σ 240562**  
3345 d 18 h 20 m  
07/04/2016 - 07/11/2016 ...

1007 of 1007 devices	Piece	Capacity	03 PM	06 PM	09 PM	Tue, 05	03
001_62100512141 CMS530HP MG	0	244					
008_63800202195 CMS502HP MG	0	243					
011_64300000475 CMS530HP	0	239					
015_62100306626 CMS530HP	0	236					
022_91200000004 CMS530HP MG	0	244					
023_64300100552 CMS530HP MG	0	244					
023_91200000003 CMS530HP	0	244					

Let the PPS count up the number of pieces for you, which can be produced in a given time window for selected machines

The calculation take operation calendar and efficiency into account

### 3. State of the art support with TeamViewer



The image displays the KM.ON software interface, which is used for managing textile production. The top section shows a scheduling overview with a calendar view and a list of orders. The bottom section shows a detailed machine screen view for a specific order, including a virtual keyboard, a list of parts, and a production status indicator.

**TeamViewer**

#### TeamViewer

- Support is **quicker** than using many **e-mails**
- **Pickup** immediately **loggings**
- **Show usage**
- **PPS** is ideal **central** to access **machines**

### 3. Support of machine operator

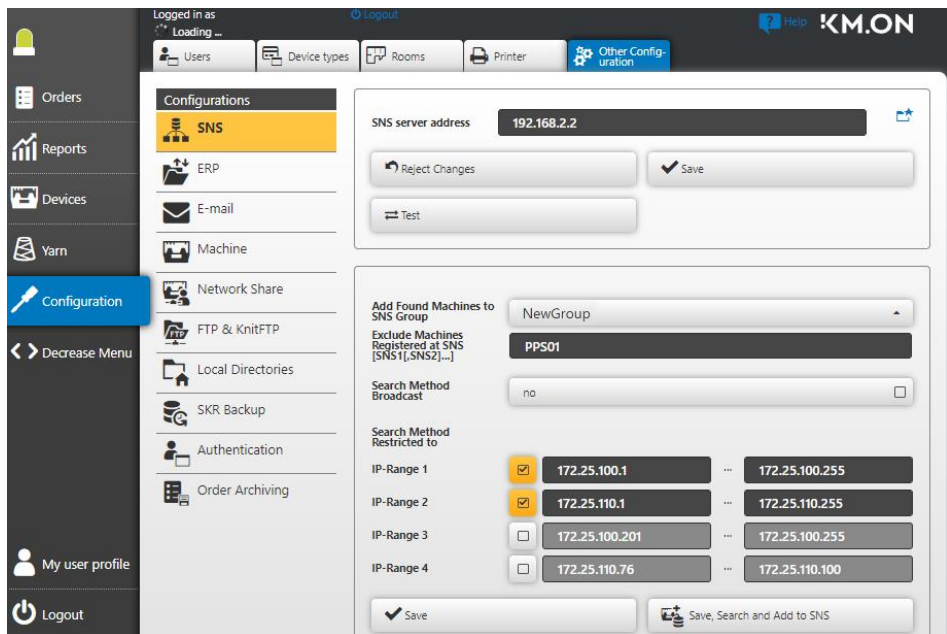
The screenshot displays the STOLL machine operator interface. At the top, a black header bar contains various status icons and text: a green bell icon, a speedometer icon with '0.30', a signal strength icon with '0', a battery level icon with '3.5', a car icon with '<S0>', a document icon with '180', and the text 'Senior Operator Shift 1'. Below this, a white bar shows the machine ID 'CMS330W.FRONT-330TT-E72JULI'. A red box highlights a 'Send Message' button with a PPS icon. Below the button, a message box states: 'Send Message The message will be sent to the alarm system of PPS.' Below this, there are two buttons: 'Maintenance' (orange) and 'Senior Operator' (grey). At the bottom, a 'Needle defect' section is visible. The interface also shows a sidebar with 'Orders', 'Reports', and 'Devices' options, and a main content area with a 'Mobile View' button and a 'Filter' button. The bottom status bar indicates '1308 of 4951 messages' and shows a message from 'Senior Operator' at '11:06:12 AM' regarding a 'Needle defect'.

Support can be requested at machine

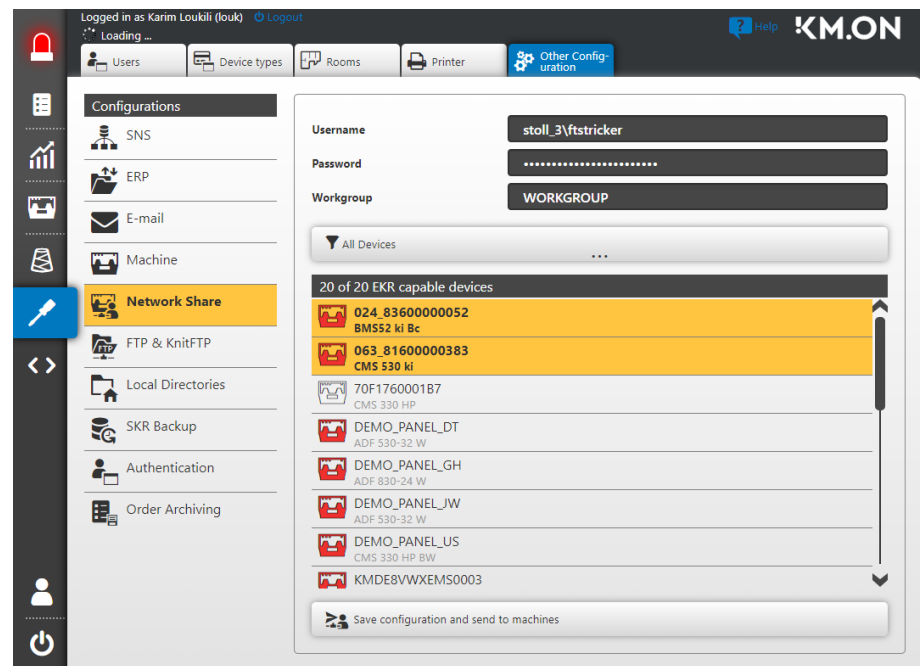
Individually viewed in message list

Bound to alarming system

### 3. Installation support



Search of new machines



Distribution of network settings



### 3. Installation support

The screenshot displays the KM.ON software interface, which is used for managing licenses and devices. The interface is divided into two main sections: a table of machine licenses and a detailed view of a specific license.

**Machine License Table:**

Machine Name	PPS Connector	PPS Connector, APM Extension	Pattern Decryption	Time Lock
MP02_BMS52_72	01/01/2022			
MP03_BMS52_12				
MP04_BMS52_352				
SC02_CMS530_72				
SR01_CMS330_72	02/01/2022	unlimited		
SR02_ADF530_18	02/01/2022	unlimited	02/01/2022	
SR07_CMS502_252	02/01/2022			
SR08_ADF830_72	02/01/2022			
SR09_ADF830_102	01/22/2022			
SR10_ADF830_102				
SR11_CMS822_72	02/01/2022			

**License Details View:**

The detailed view shows the license status for a specific machine, DEMO\_PANEL\_DT. It lists the new licenses and the installed licenses.

**New licenses:**

- PPS connector EVP (1 year) (01/31/2022)

**Installed licenses:**

- PPS connector EVP (1 year) (01/31/2022)
- software EKC upgrade EVP (unlimited)

**Machine Name:** DEMO\_PANEL\_DT

**Machine State:** PPS connector EVP (1 year) (01/31/2022)

**Machine State:** PPS kit APM CMS8XX/X30T (unlimited)

**Machine State:** PPS Connector, APM Extension (unlimited)

**Machine State:** Pattern Decryption (02/01/2022)

Determine the license status and export the order list

Distribute licenses

### 3. Download PPS SW and EVP

- SW **download** is available via **Customer Net** for our **customers**
- The **PPS Server Suite** and **Video Tutorial** are **free** after registration
- The **PPS** already offers a lot of **support** with its **basic configuration**
- If you want to use the **Ticket Management**, you can purchase the required **Extended Value Packages**, download them and **distribute** them to machines **via** the **PPS**.

The screenshot shows the STOLL Customer Net website. The browser address bar displays <https://customer.stoll.com/kundnet/stoll-startseite-en>. The page has a navigation menu with links: Home, EVP / STOLL Download (highlighted with a mouse cursor), FAQs & Tips, Service, Software, Spare Parts, and STOLL. A large banner on the right features a photo of hands working on a machine and the text "Download Documentation + Tips and tricks". Below the navigation menu, there is a section titled "Download:" with a table listing available downloads. The first entry is "PPS Server Suite (max. 1000 MC)" with the file name "V\_PPS\_001.009.026\_ST". The second entry is "PPS SERVER SUITE update" with the file name "V\_PPS\_001.009.026\_ST". To the right of the table, there is a text block explaining the installation process and fees. Below the table, there is a checkbox labeled "I have read the Standard Business Conditions FUL A und Hardware Regu" and buttons for "Exit", "Start download", and "Reset". On the right side, there is a section titled "STOLL Extended Value Package Download" with a "Request data:" label and a text input field for the serial number of the machine(s).

Download:	File Name
PPS Server Suite (max. 1000 MC)	V_PPS_001.009.026_ST
PPS SERVER SUITE update	V_PPS_001.009.026_ST

We are glad to assist you with the installation by using Team Viewer. We would then check the hardware requirements and install the software on your PC. Support is generally only possible if the hardware meets the requirements (please see link Hardware requirements).

For using the remote installation and support from the helpline we charge the following fees:

- Remote installation with Team Viewer € 200.-
- Support Helpline, per request € 100.-

For the integration of the machines into the PPS as well as on-site training the effective cost will be in the corresponding offer. Kind reference number which:

You can find information in the video tutorial.

With best regards,

Your Stoll Helpline Team

Update of already existing machines in the field on the right, as when you requested the I

☒ I have read the [Standard Business Conditions FUL A](#) und [Hardware Regu](#)

[Exit](#) [Start download](#) [Reset](#)

**STOLL** Extended Value Package Download

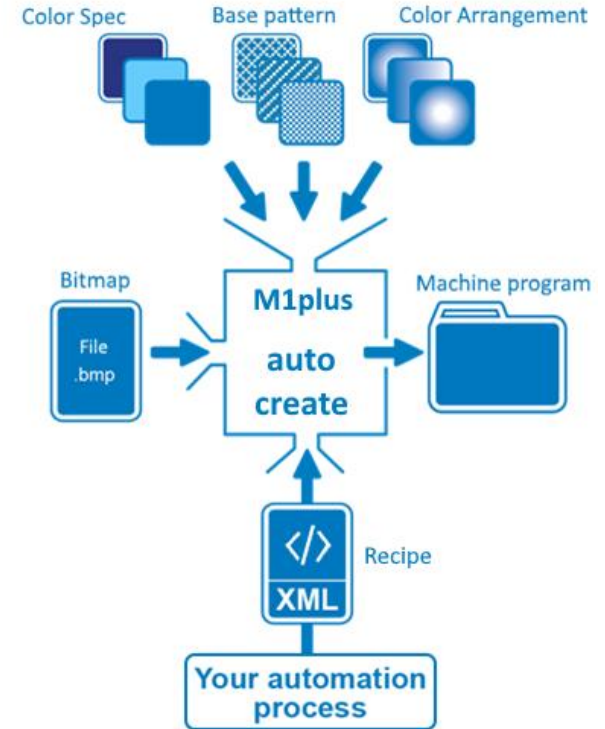
**Request data:**

For serial number of machine(s):

61500002355

[Exit](#) [Reset](#) [Continue](#)

- **PPS** is **part** of the **knittelintelligence** chain
- **Enables individual production** with **batch size 1**
- **Patterns** can be **generated automatically** by means of **AutoCreate**
- In the **connected automation process**, **order tickets** can be fed to the **PPS** for **production** and **automatically executed** on a machine



### 3. Pattern encryption

- **PPS supports** the pattern **encryption process**
- The **public keys required** for this can be **requested** from the **machine** via **service tickets** and **collected** in a **central folder**
- The **public keys** can thus be more **easily fed** **into the encryption process**
- Due to the **schedulability** of the **tickets**, it is **possible** to generate new keys after **completion** of the current **production** and thus to declare the **previous patterns invalid**.



### 3. Manage machines easily

- Keep machine operating system up to date
- **User role system** for PPS and machines, to avoid **misuse** and **application errors**, by offering **only necessary functions**
- **Simplify finding** and **importing machines** with the **same settings**
- **Provide the same user profile** on machines
- **Get public encryption key** of the **machine** for pattern encryption
- In regular intervals, **save machine configuration centrally**  
(makes IPC replacement much easier if necessary)
- **Make security settings** (USB/VNC)
- **Determine license durations, request and distribute**

## 4. Alarm system

Logged in as Karim Loukili (louk) Logout

Messages Subscribe Messages Configuration

**Subscribe Messages** ☒

**Subscribed Shifts**

- 1 07:00 - 12:00 ☐
- 2 12:00 - 17:00 ☒
- 3 17:00 - 07:00 ☐
- 4 - ☐
- 5 - ☐

**Subscribed Machine Groups**

- 01\_Showroom ☐
- 02\_Schulungszentrum ☒
- 03\_Service\_216 ☐
- Gruppe\_1 ☐
- Production Devices ☐
- Simulated Machines ☐

Event	Message	E-mail	SMS
Machine Management			
Error sending the configuration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Failure of machine communication	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Machine Events	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maintenance Call	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SOP Call	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Universal Event	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Failure of order recovery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Device is reduced	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Senior Machine Management			
Machines operating system changed	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Device removed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Device data in SNS changed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Device is not registered in SNS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Device imported	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Device group deleted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

A PPS user can **subscribe** from a wide range of **alarms** and **limit** it to a **shift** or **machine group** he is **responsible** for.

Even very special **alarms** for the occurrence of one from 10.000 **machine messages** can be setup.

Logout

Subscribe Messages Configuration

Number of stops (number of state:error number,error number,...;number of state number:error number,...)

8:10214;9:-1007;11



### 3. Yarn database

Used yarns and yarn inventory can be managed in the yarn DB

Logged in as Karim Loukili (louk) Logout

Overview Yarn Demand Check

Import Yarn Data 4 Export Yarn Data 5

Yarn ID	Manufacturer	Item	Color	Count	Stock [kg]	Administration
2002	C.F. Buschendorf OHG	2002	White	30.0/1 Nm	6.5	...
250208	TVU	Ocean	LightGrey_315	50.0/2 Nm	77.9	...
702364	Filmar s.p.a	OSIRIDE	P.Green 13-02	28.0/4 Nm	37.31	...
Winter 2018	Otto	0815	Blau	32.0/2 Nm	20.0	...
Winter 2018_1	Otto	0815	Grün	32.0/2 Nm	40.0	...

5 / 5



Create New Yarn Type ... 1

2

3

### 3. Yarn database

**Yarn data** can be used in **M1plus** and saved in the **pattern container** with **production times** and **quantities**. This allows **demand** to be **determined** and **demand** to be **cross-checked** in the **PPS**.

 Help 

Edit Yarn Demand

Total Yarn Demand

Order Name

General\_YarnLenCfgx5

Patterns

CMS530.YarnLenCfgx4.zip



Total Quantity of Pieces

253

Quantity of Machines

0

Yarn ID	Bobbins / Machine	g / Piece	Total Bobbins	Total Demand [kg]
Winter 2018	1	600.0	0	151.8
2002	1	5.0	0	1.265
250208	2	11.0	0	2.783

 Close  Print

### 3. Yarn database

This makes it possible, for example, to output **daily yarn requirements** for **logistics supply**

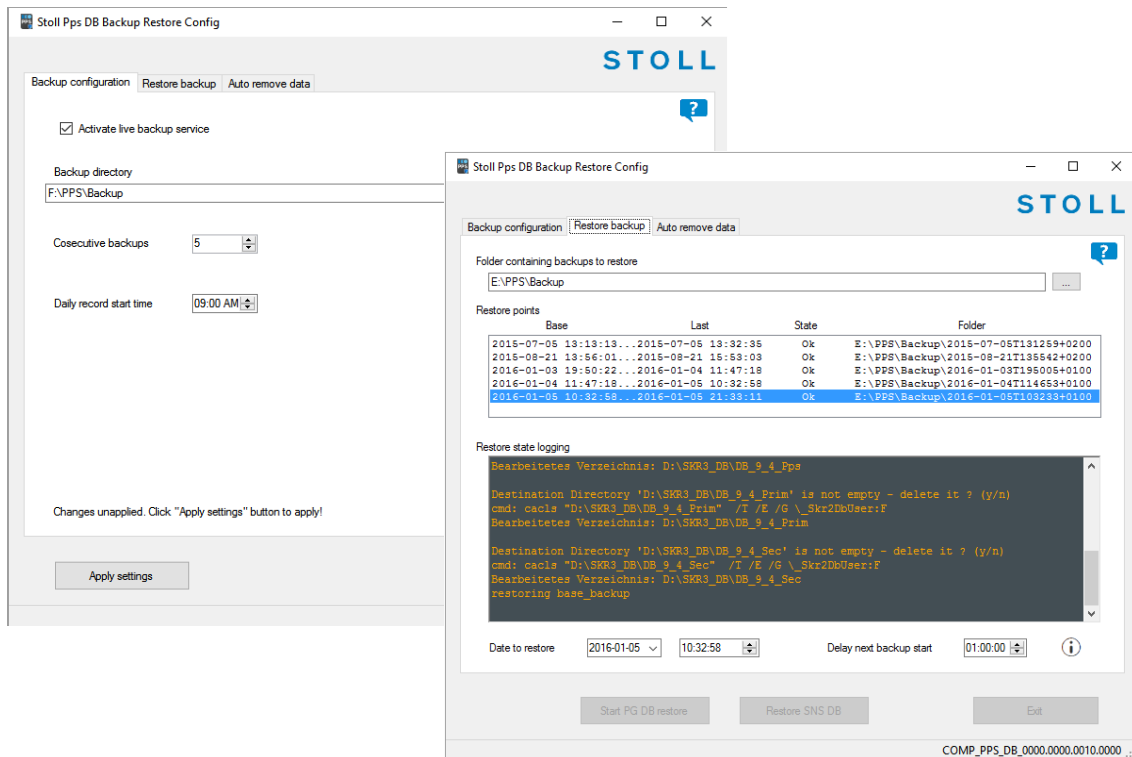
#### Yarn Demand Report by Pattern

2019-10-15 - 2020-10-15

	Yarn	2002	2481-4 374C	250208	52654	548720 7144	565024	570300	6348X X-0010	702364	M1Plu sId: 20 0	M1Plu sId: 20 1	M1Plu sId: 20 4	M1Plu sId: 20 5	M1Plu sId: 20 6	M1Plu sId: 20 7	M1Plu sId: 20 8	T23916 7	Winter 2018
Time	Pattern	Yarn [kg]	Yarn [kg]	Yarn [kg]	Yarn [kg]	Yarn [kg]	Yarn [kg]	Yarn [kg]	Yarn [kg]	Yarn [kg]	Yarn [kg]	Yarn [kg]	Yarn [kg]	Yarn [kg]	Yarn [kg]	Yarn [kg]	Yarn [kg]	Yarn [kg]	Yarn [kg]
<b>Overall Total 2019-10-15 - 2020-10-15</b>		<b>1.575</b>	<b>1.555</b>	<b>3.443</b>	<b>0.078</b>	<b>0.089</b>	<b>0.023</b>	<b>0.161</b>	<b>4.087</b>	<b>0.008</b>	<b>18.00</b>	<b>6.000</b>	<b>0.300</b>	<b>0.100</b>	<b>0.030</b>	<b>0.160</b>	<b>0.050</b>	<b>0.021</b>	<b>187.8</b>
<b>2019-10-16</b>	Blauer_PJ	0.006	1.110		0.051	0.058	0.015	0.115	2.665										
	CMS502.Blauer_PJ-linkes_ Bein-alt	0.001	0.222		0.010	0.012	0.003	0.023	0.533										
	CMS530.Info_2										12.00		0.200		0.020	0.100			
	CMS530.MySeq-RainInAp ril2018	0.001			0.007	0.008	0.002		0.355	0.008								0.021	
	CMS530.MySeq-SpringBr eeze2018	0.001	0.222		0.010	0.012	0.003	0.023	0.533										
	CMS530.YarnLenCfgx3										6.000		0.100		0.010	0.050			
	CMS530.YarnLenCfgx4	1.489		3.276															178.7
	CMS530.YarnLenCfgx5											6.000		0.100		0.010	0.050		
	<b>Total 2019-10-16</b>	<b>1.499</b>	<b>1.555</b>	<b>3.276</b>	<b>0.078</b>	<b>0.089</b>	<b>0.023</b>	<b>0.161</b>	<b>4.087</b>	<b>0.008</b>	<b>18.00</b>	<b>6.000</b>	<b>0.300</b>	<b>0.100</b>	<b>0.030</b>	<b>0.160</b>	<b>0.050</b>	<b>0.021</b>	<b>178.7</b>
<b>2019-10-17</b>	CMS530.YarnLenCfgx4	0.076		0.167															9.082
<b>Total 2019-10-17</b>		<b>0.076</b>		<b>0.167</b>															<b>9.082</b>

### 3. Database live backup

## Incremental live backup enables DB restore to the second

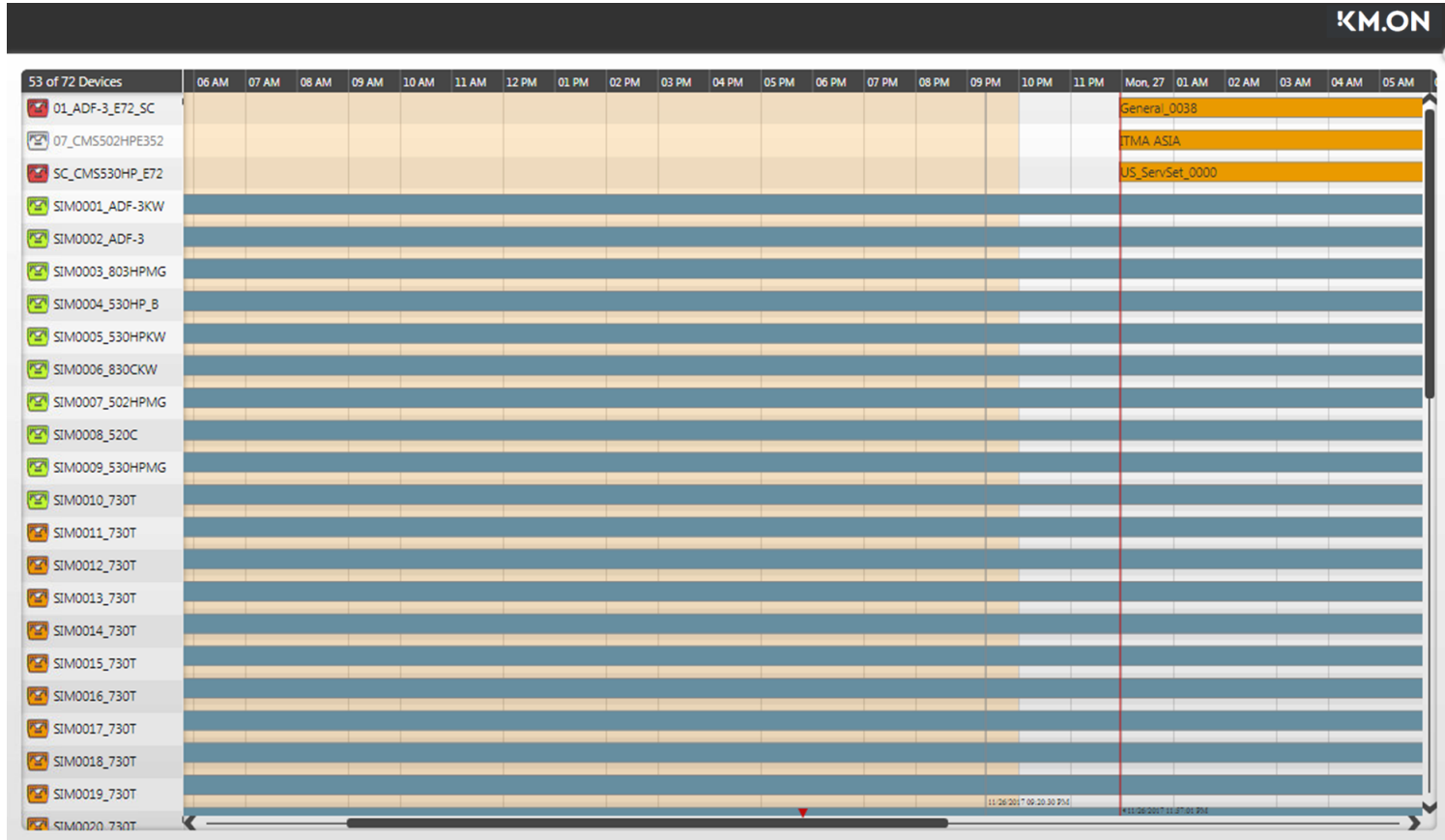


Ensures **operational safety**

Facilitates **relocation**

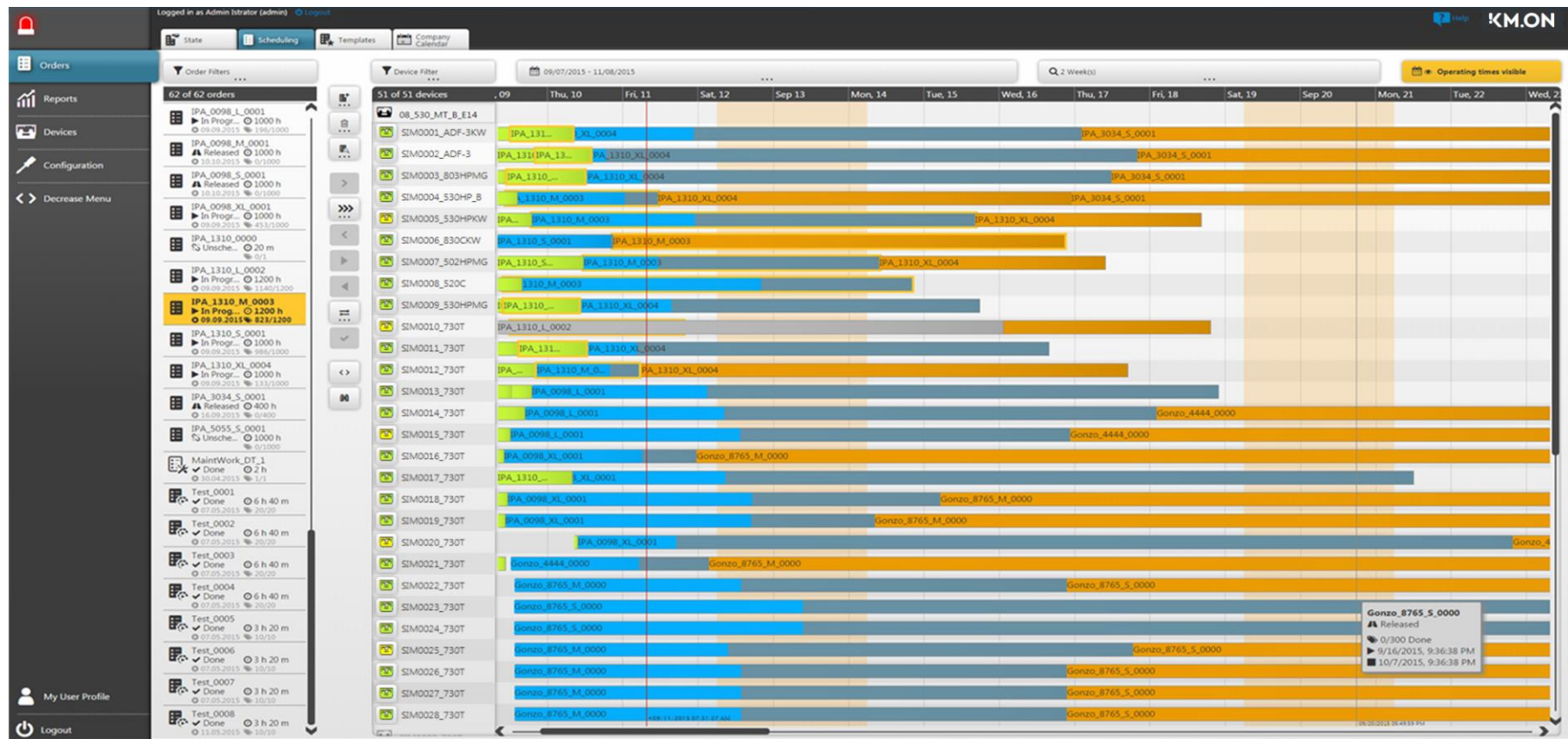
**Recovery** integrated in the PPS provides additional **security**

## 4. Order status



**View** can be  
used on  
**monitors** in  
**production**  
**facility**

## 4. Optimize your production



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