# Stoll Production Planning System

# Stoll Production Planning System

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

# 1. Motivation

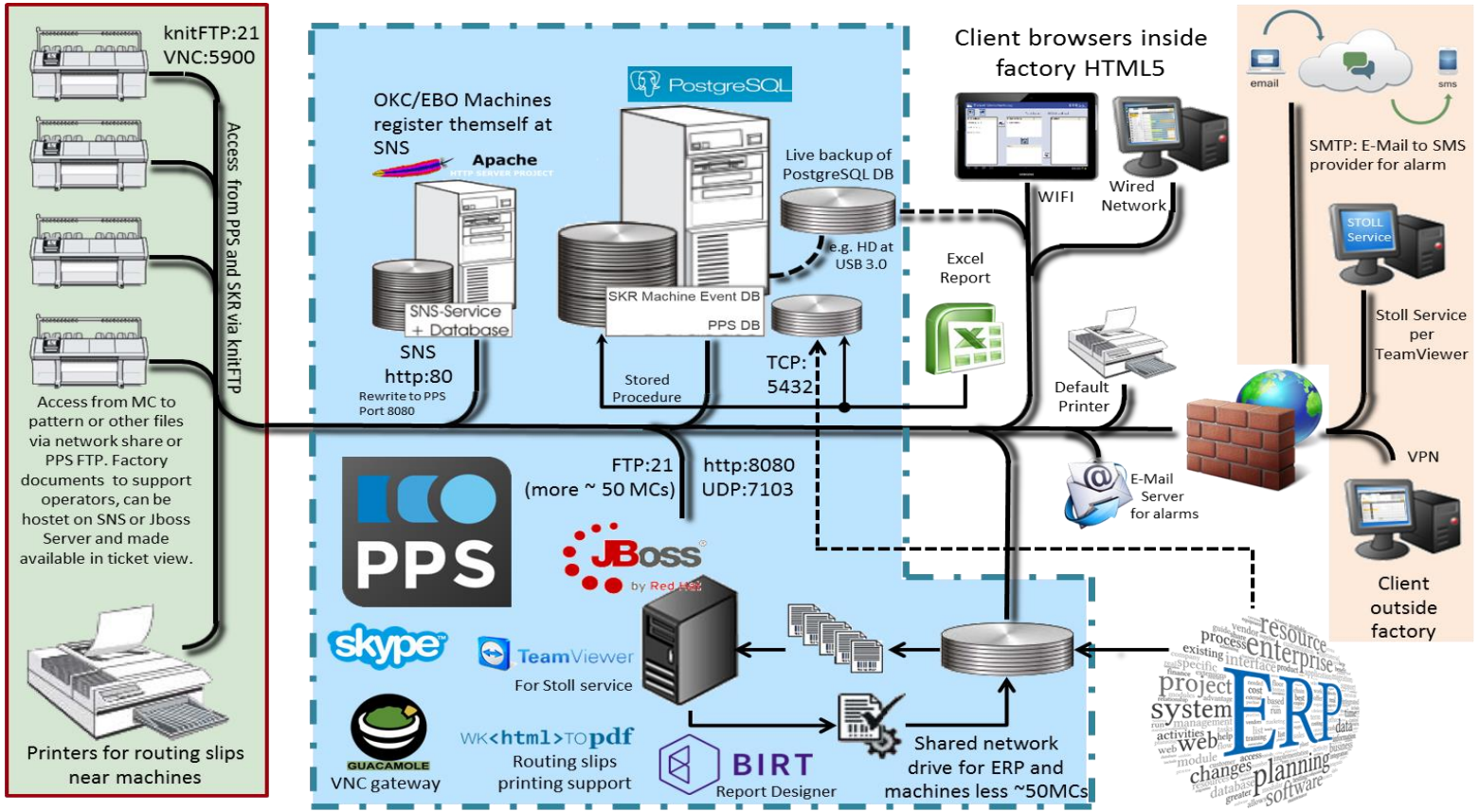
Adding to our high-quality Stoll-Machines, **innovative services** around the knitting process

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**.

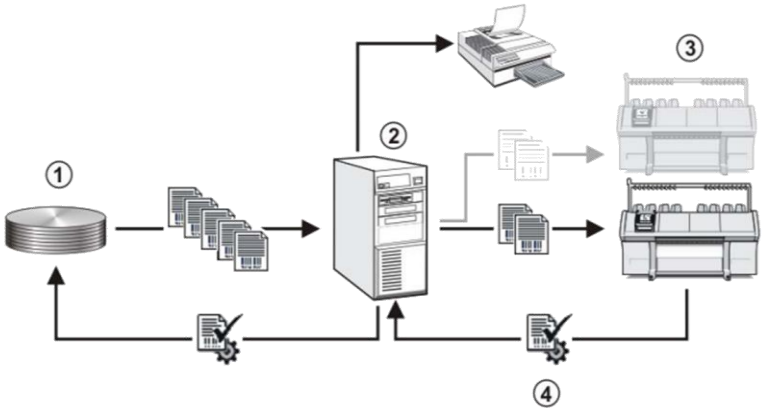
- **In time** production satisfies your customers.
- **Optimize** use of **resources** by finding potential.
- Have your **production efficiently organized** and always **under control.**
- **Support** for **maintaining** your **machines**

# 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)

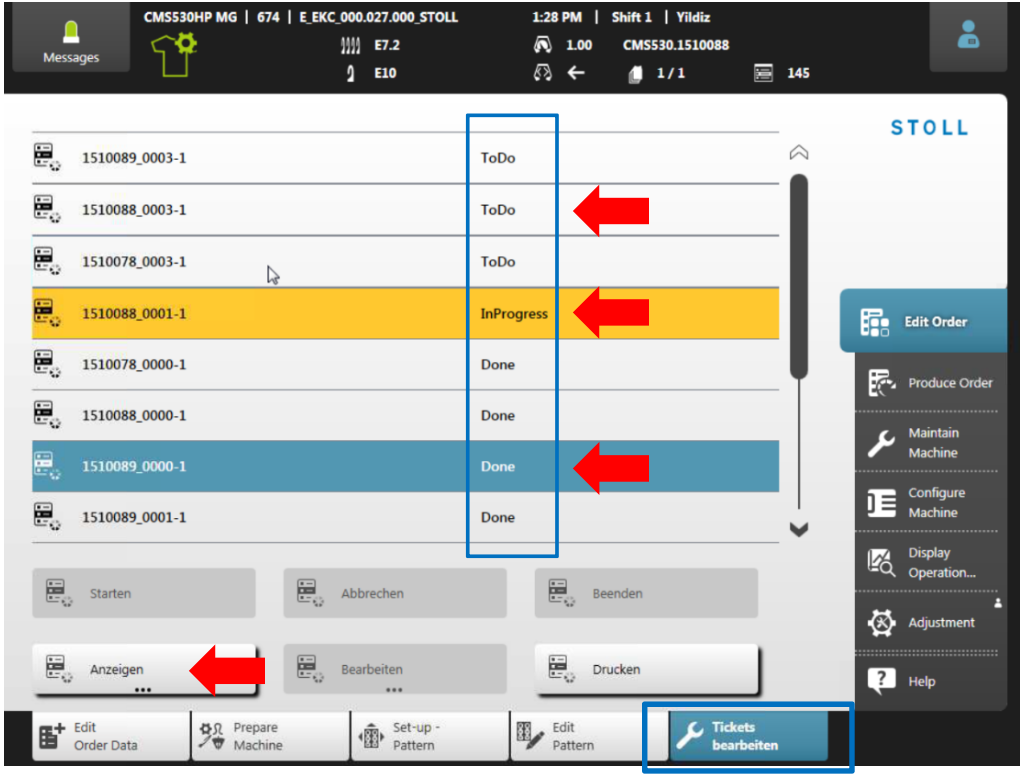
**Order state** of **single machines** and **summary** of **split order** can be **viewed**

**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




**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 | STOLL |
|---|---|---|---|

**Ordernumber: DA-Pulli-1234**

| | |
|---|---|
| **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.seqx |
| **Duration per PC [min]:** | 20 |
| **Shape:** | |
| **Size:** | 38 |
| **Lenght [cm]:** | 70 |
| **Width [cm]:** | 56 |
| **Weight [g]:** | 200 |

**Description**

Da-Pulli from 12er CMS530 with intarsia motives in FP and Arm, RP sleek R/L, short tube wristbands, with wide turtle neckline.
Customer: 887766, Stoll Fashion Technology
Customer-Order-Num: 98765432
Customer-Art-Num: 1410119
Deliver Date: 2015-08-31

**Yarn Feeder Assignment**

| YFeeder L | YFeeder R | Yarn Manuf | Quality | Len No | Thread Count | Color Num | Color Name | Lot Number |
|---|---|---|---|---|---|---|---|---|
| | 1 | TVU | Separator Thread | | | | | |
| | 2 | TVU | Elastic Thread | | | | | |
| | >3<,>4< | TVU | Ocean | 32/2 | 2 | 240 | cognac | 123456 |
| | >5< | TVU | Ocean | 32/2 | 2 | 460 | orange | 789012 |
| >3 | 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 |

**Operator Reportings-Back** Barcode

| Label | Report |
|---|---|
| Yarnchanges | 12 |
| Humidity | 65 |
| Temperature | 26 |
| Power outages | 2 |
| Yarn ripps | 2 |
| Defective parts | 3 |

1 234567 890123

**Preexecuted Command Results**

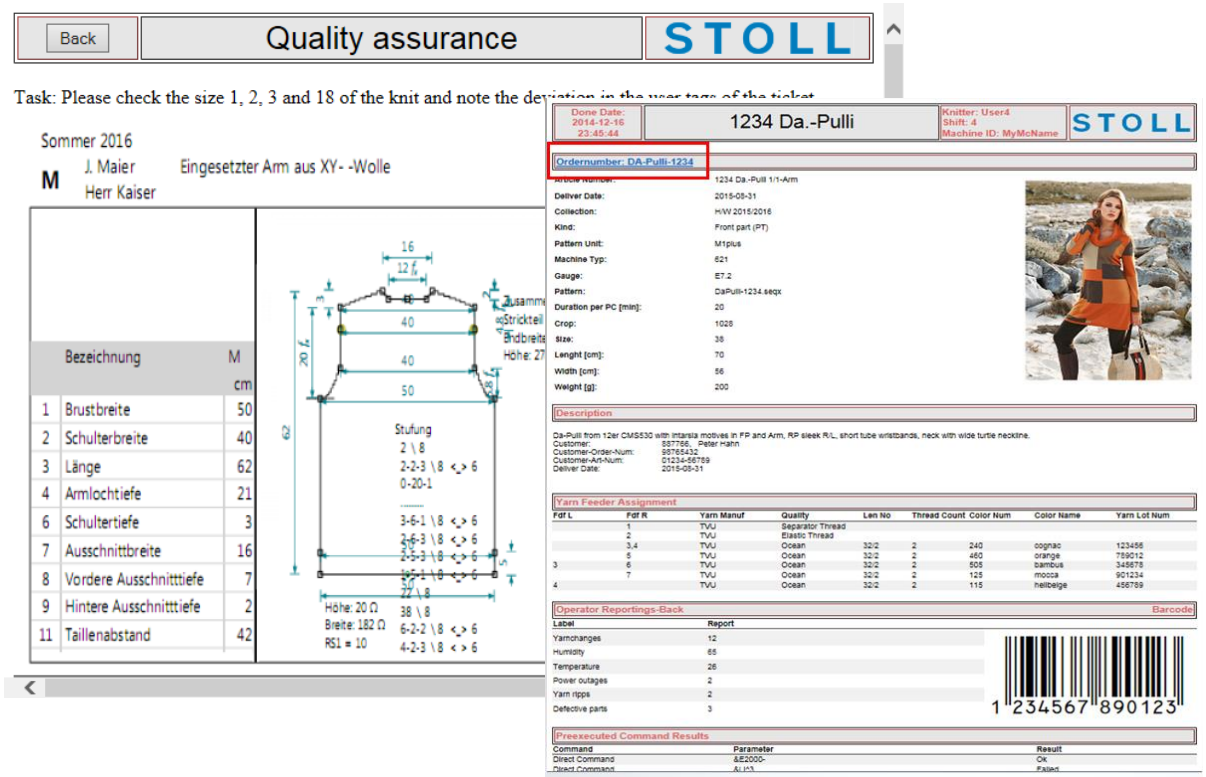
| Command | Parameter | Result |
|---|---|---|
| Direct Command | &E2000- | Ok |
| Direct Command | &LI^3 | Failed |

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**

– WEB LINKS



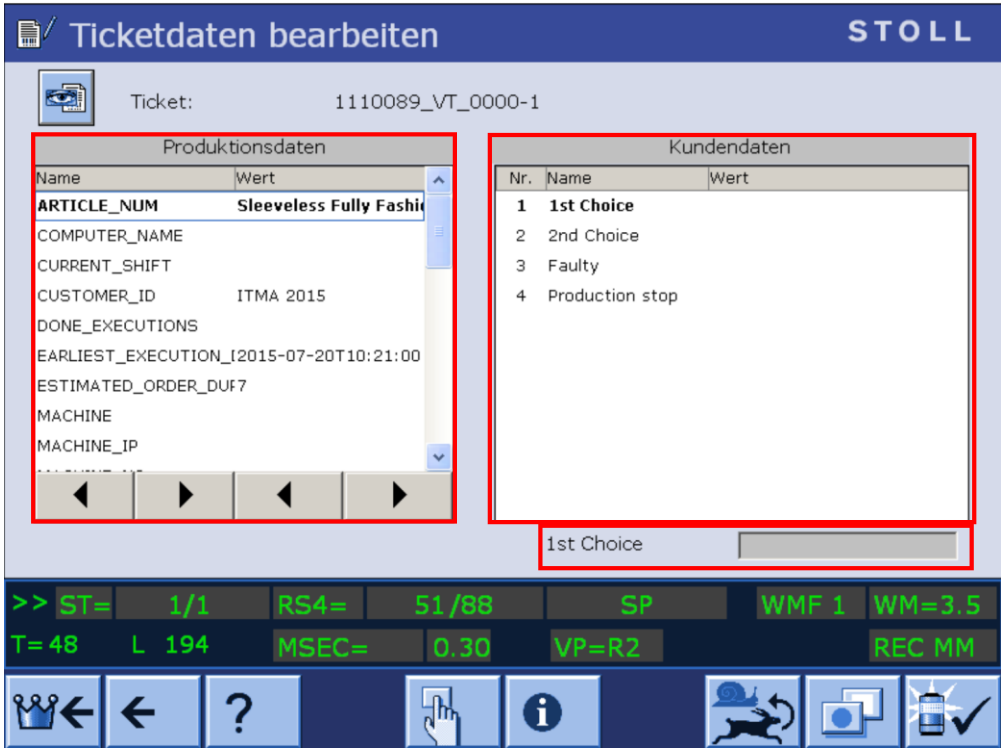

**Web Links** can be **added** to the **ticket**

**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




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

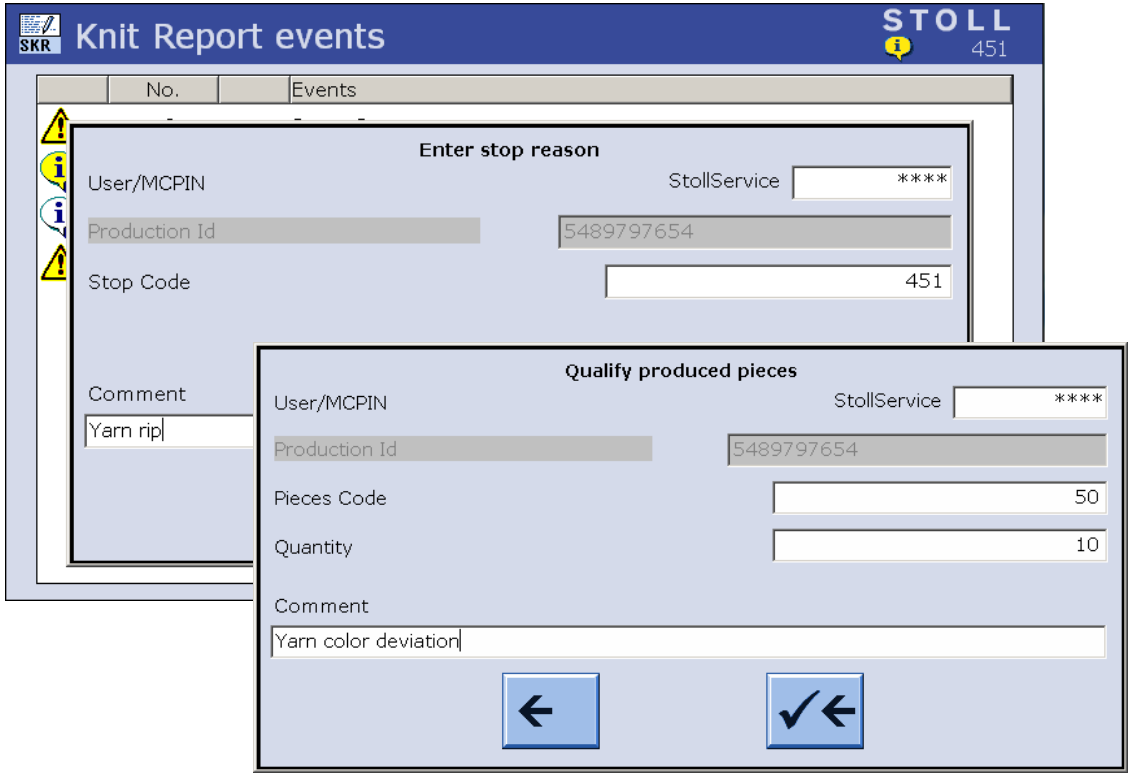
**Values** can be **changed** during production by the **operator**

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



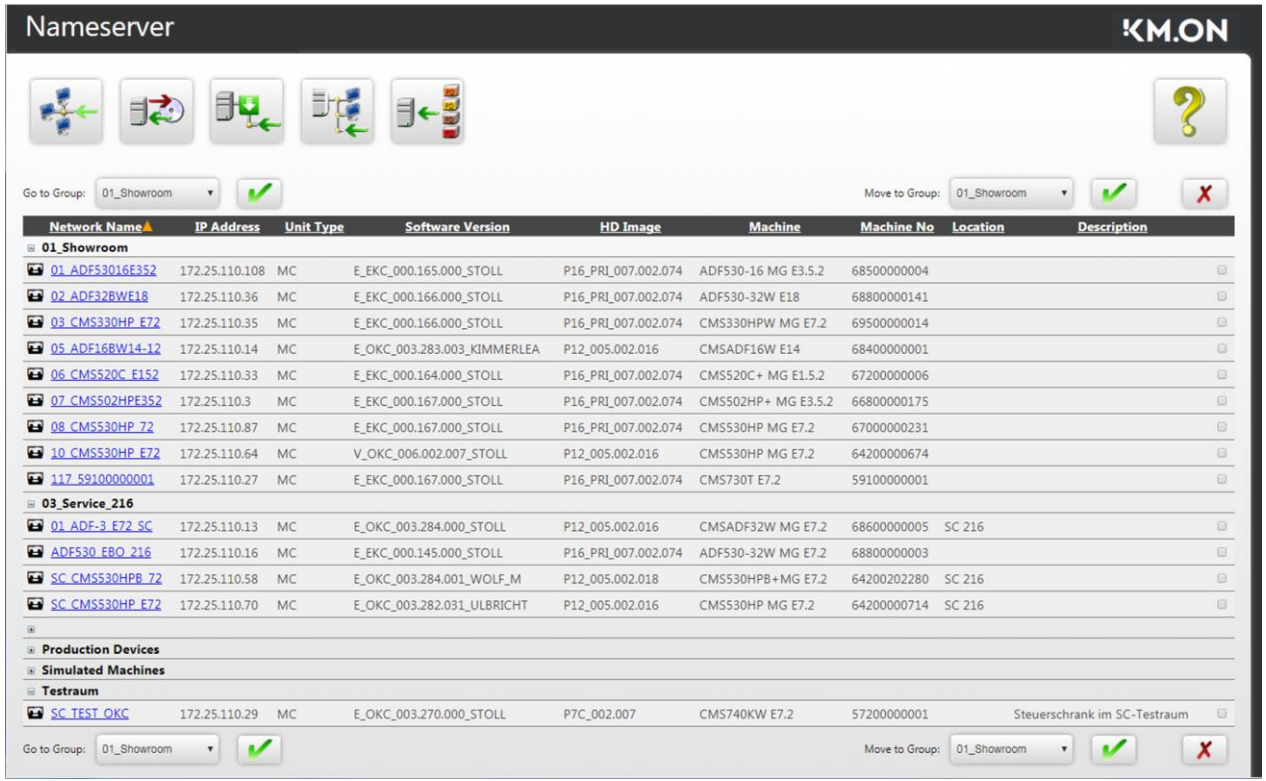

You can **define customized user events**.
When triggered, an **individualized dialog pops up** and request information's.

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




| 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_ADF32BWE18 | 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_EBO_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**

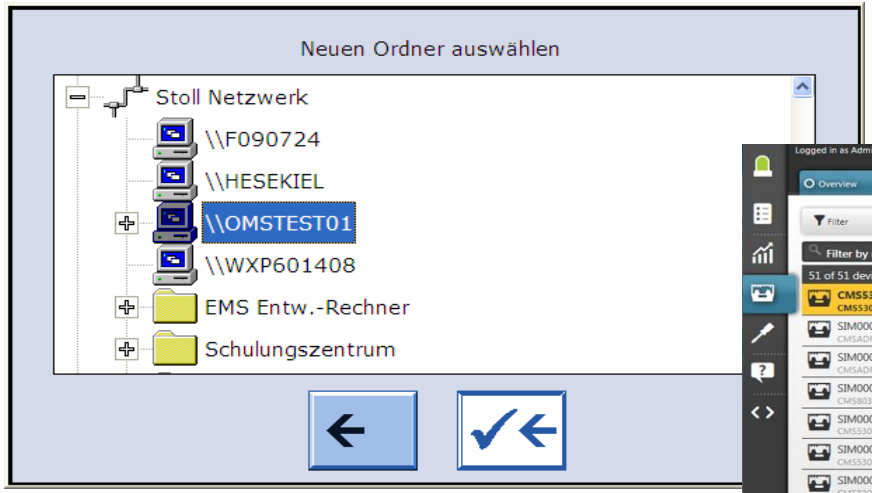
**Profile** is **shared** with **other** SW **solutions**

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

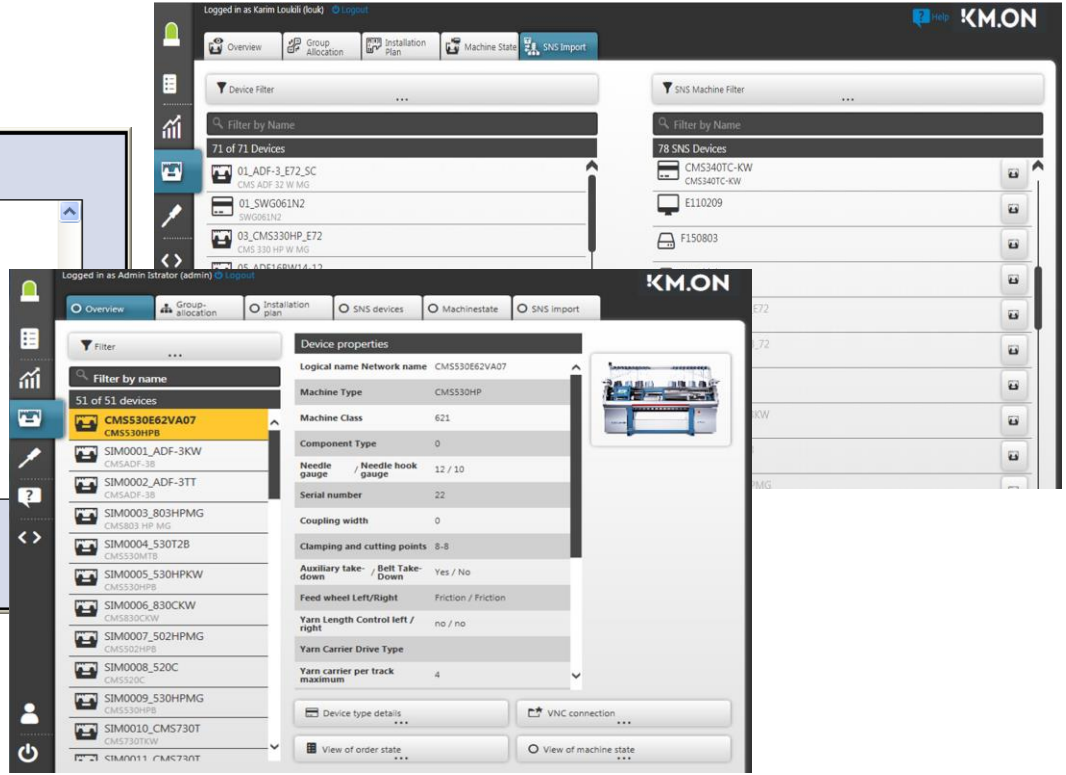
**Stoll knitting** machines **add themselves** to **SNS**

# 2. Components of PPS solution

– SNS IN USE



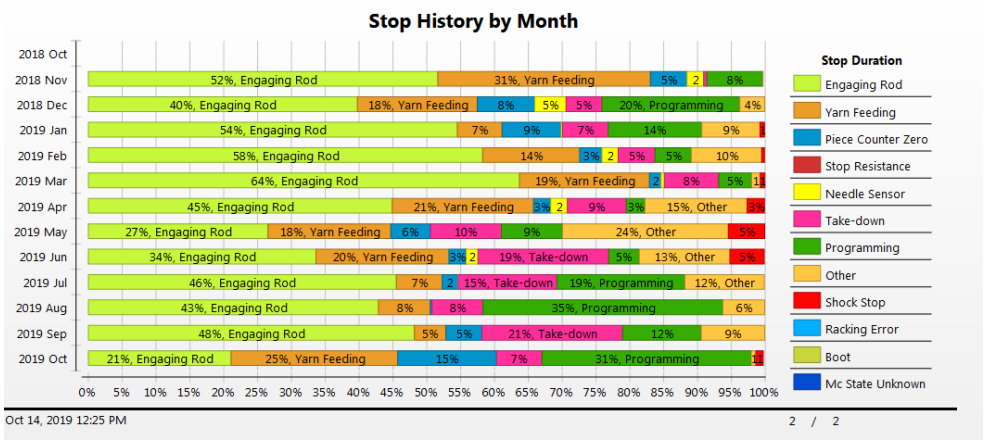

Pattern folder selection at machine shows only devices in Stoll Network

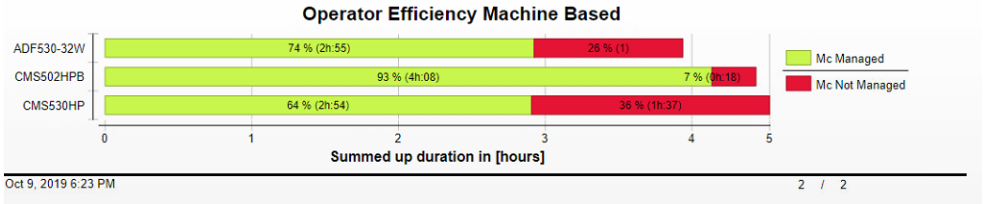



Import of machine in PPS
Properties view of machine in PPS

# 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**

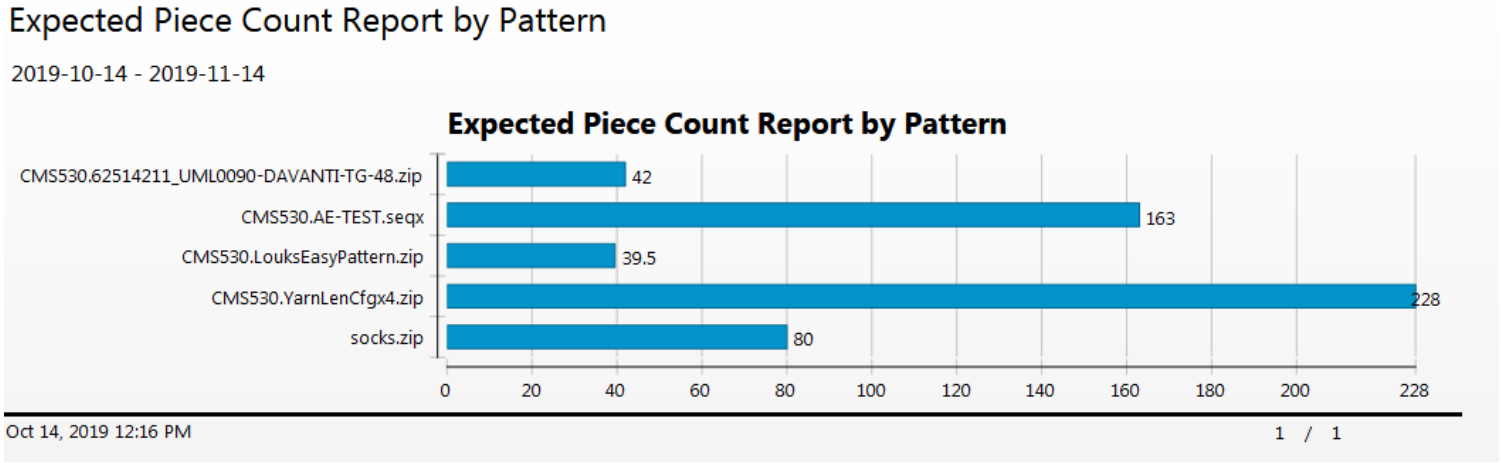
**Data analysis** can be performed **quickly** and **individually**

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

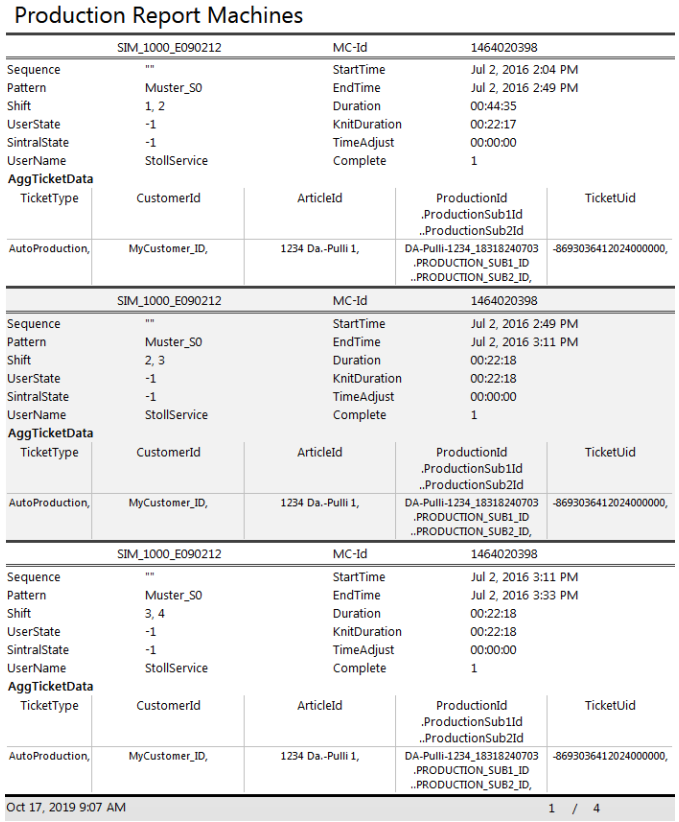
Production **bottlenecks** can be located and **optimized** to **reduce waste**, **save energy**, **be more sustainable**, **optimize employment of stuff**

## Reports with SKR3

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



# 2. Components of PPS solution



Production Report Machines

| | SIM_1000_E090212 | MC-Id | 1464020398 |
|---|---|---|---|
| Sequence | "" | StartTime | Jul 2, 2016 2:04 PM |
| Pattern | Muster_S0 | 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_S0 | 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_S0 | 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 |

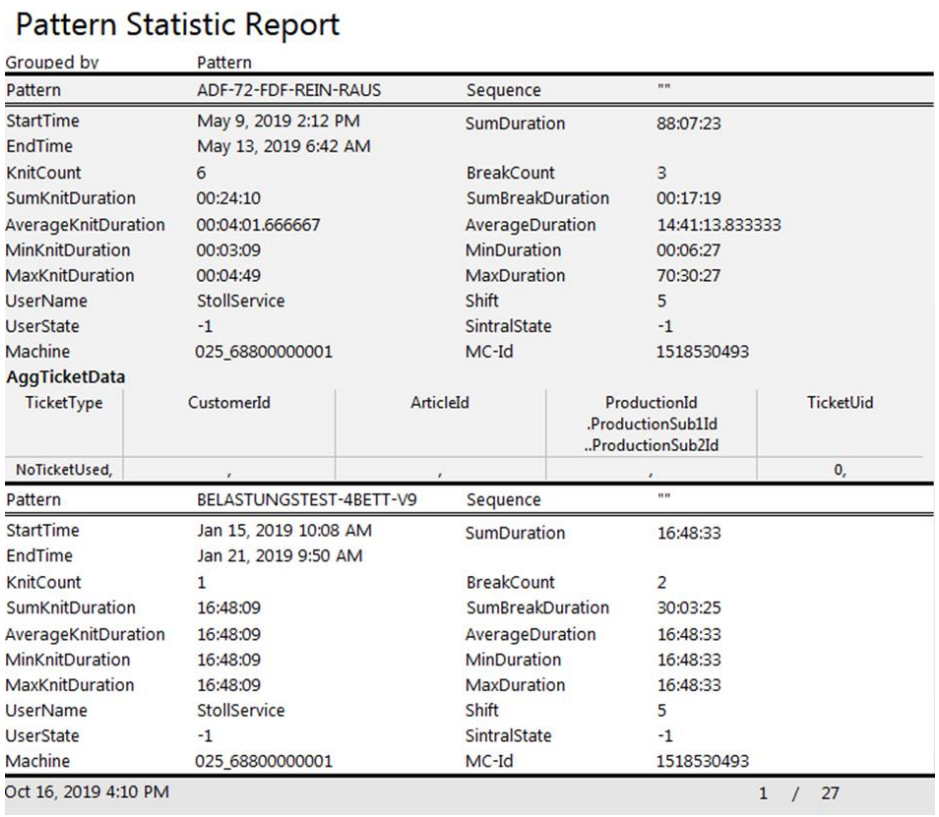
**AggTicketData**

| 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 |
| UserState | -1 | SintralState | -1 |
| Machine | 025_68800000001 | MC-Id | 1518530493 |

**AggTicketData**

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

| Pattern | BELASTUNGSTEST-4BETT-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 |
| UserState | -1 | SintralState | -1 |
| Machine | 025_68800000001 | MC-Id | 1518530493 |

Oct 16, 2019 4:10 PM 1 / 27

**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 |
| MC-Id | 1554385270 |
| Shift | 1, 2 |
| UserName | "Stoll Service" |
| CustomId | Stoll |
| ArticleId | 1110095 |
| ProductionId | Showroom |
| ProductionSub1Id | 04_CMS530HP_MG_E7.2 |
| ProductionSub2Id | "" |
| Sequence | "" |
| Pattern | devore |
| TicketUid | 1699174868766518878 |
| StartTime | Sep 1, 2019 12:00 AM |
| EndTime | Sep 4, 2019 12:00 AM |
| OverallDuration | 72:00:06 |
| TimeAdjust | -00:00:06 |

| Event | Event Count | State Count | Duration |
|---|---|---|---|
| Run | 0 | 0 | 00:00:00 |
| Stop | 0 | 1 | 72:00:06 |
| Engaging | 0 | 0 | 00:00:00 |
| YarnFeed | 0 | 0 | 00:00:00 |
| PieceCounterZero | 0 | 0 | 00:00:00 |
| Resistance | 0 | 0 | 00:00:00 |
| PositionNeedleSensor | 0 | 0 | 00:00:00 |
| TakeDown | 0 | 0 | 00:00:00 |
| Programming | 0 | 1 | 72:00:06 |
| Other | 0 | 0 | 00:00:00 |
| Shock | 0 | 0 | 00:00:00 |
| Racking | 0 | 0 | 00:00:00 |
| NoData | 0 | 0 | 00:00:00 |
| Off | 0 | 0 | 00:00:00 |
| Boot | 0 | 0 | 00:00:00 |
| McStateUnknown | 0 | 0 | 00:00:00 |

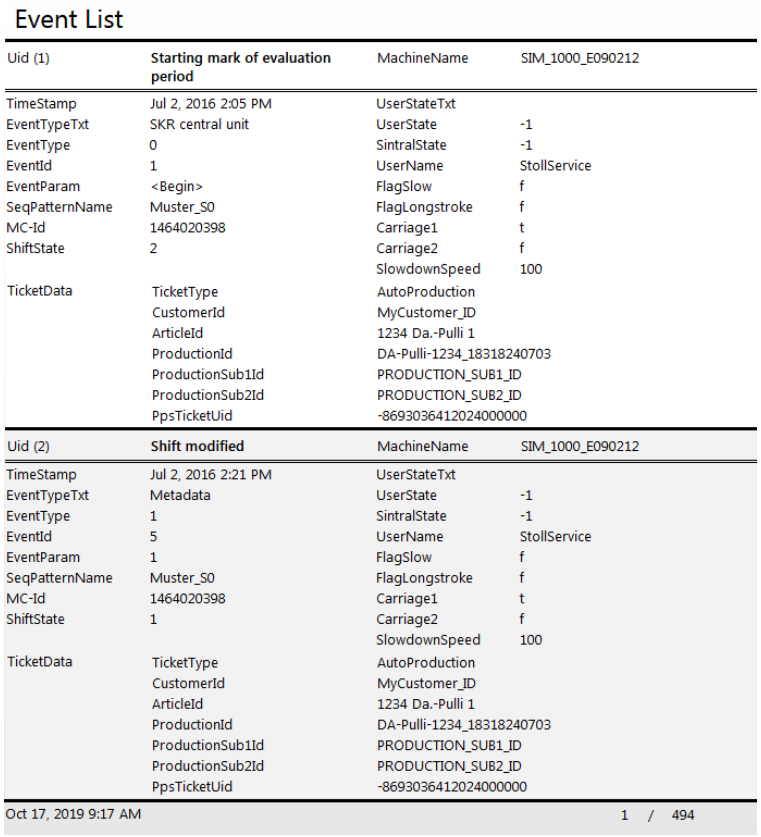
| | |
|---|---|
| MachineName | 07_502HP_E252 |
| MC-Id | 1560238671 |
| Shift | 1, 2 |
| UserName | "Stoll Service" |
| CustomId | Stoll |
| ArticleId | 1110095 |
| ProductionId | Showroom |
| ProductionSub1Id | 07_CMS502HP+_MG_E2.5.2 |
| ProductionSub2Id | "" |
| Sequence | "" |
| Pattern | 1110095-2 |
| TicketUid | 1699207028407890204 |
| StartTime | Sep 1, 2019 12:00 AM |
| EndTime | Sep 4, 2019 12:00 AM |
| OverallDuration | 72:00:00 |
| TimeAdjust | 00:00:00 |

| Event | Event Count | State Count | Duration |
|---|---|---|---|
| Run | 1 | 1 | 00:00:01 |
| Stop | 1 | 2 | 71:59:59 |
| Engaging | 1 | 2 | 71:59:59 |
| YarnFeed | 0 | 0 | 00:00:00 |
| PieceCounterZero | 0 | 0 | 00:00:00 |
| Resistance | 0 | 0 | 00:00:00 |
| PositionNeedleSensor | 0 | 0 | 00:00:00 |
| TakeDown | 0 | 0 | 00:00:00 |
| Programming | 0 | 0 | 00:00:00 |
| Other | 0 | 0 | 00:00:00 |
| Shock | 0 | 0 | 00:00:00 |
| Racking | 0 | 0 | 00:00:00 |
| NoData | 0 | 0 | 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 | MyCustomer_ID | |
| | ArticleId | 1234 Da.-Pulli 1 | |
| | ProductionId | DA-Pulli-1234_18318240703 | |
| | ProductionSub1Id | PRODUCTION_SUB1_ID | |
| | ProductionSub2Id | PRODUCTION_SUB2_ID | |
| | PpsTicketUid | -8693036412024000000 | |

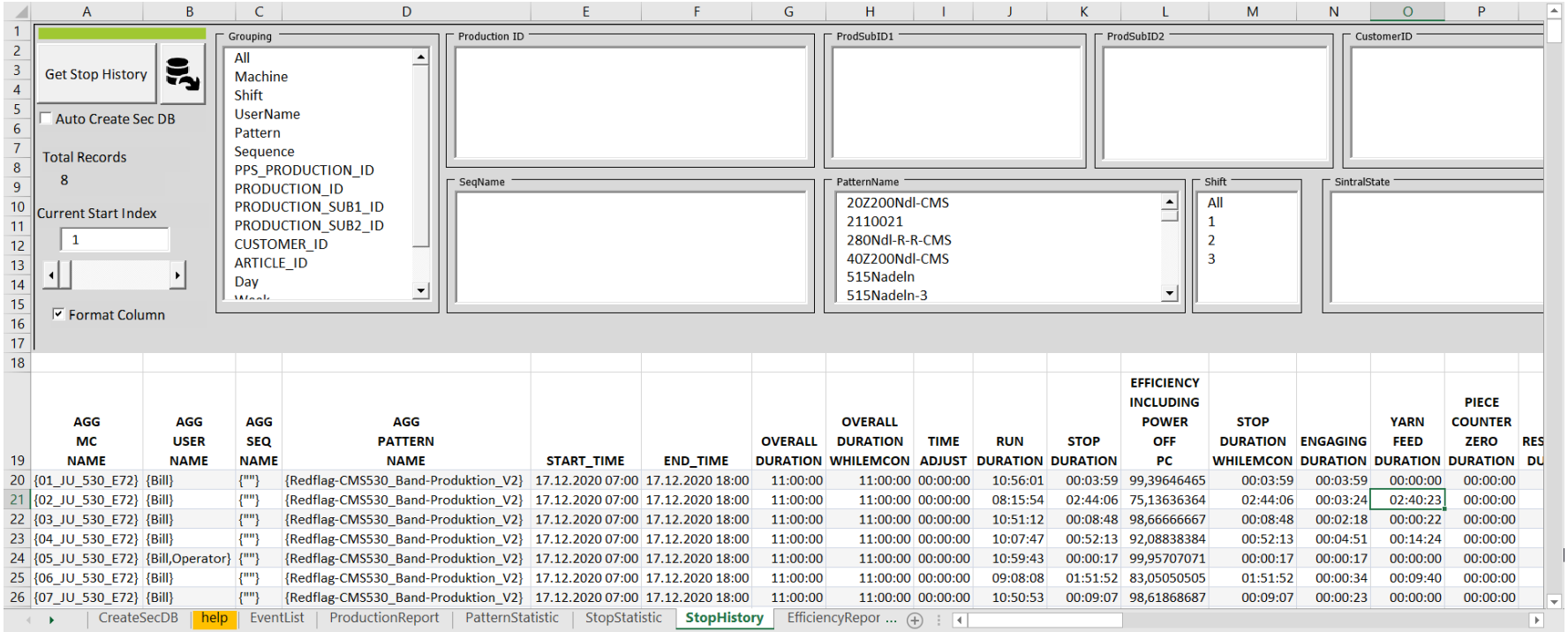
| Uid (2) | **Shift modified** | MachineName | SIM_1000_E090212 |
|---|---|---|---|
| TimeStamp | Jul 2, 2016 2:21 PM | UserStateTxt | |
| EventTypeTxt | Metadata | UserState | -1 |
| EventType | 1 | SintralState | -1 |
| EventId | 5 | UserName | StollService |
| EventParam | 1 | FlagSlow | f |
| SeqPatternName | Muster_S0 | FlagLongstroke | f |
| MC-Id | 1464020398 | Carriage1 | t |
| ShiftState | 1 | Carriage2 | f |
| | | SlowdownSpeed | 100 |
| TicketData | TicketType | AutoProduction | |
| | CustomerId | MyCustomer_ID | |
| | 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

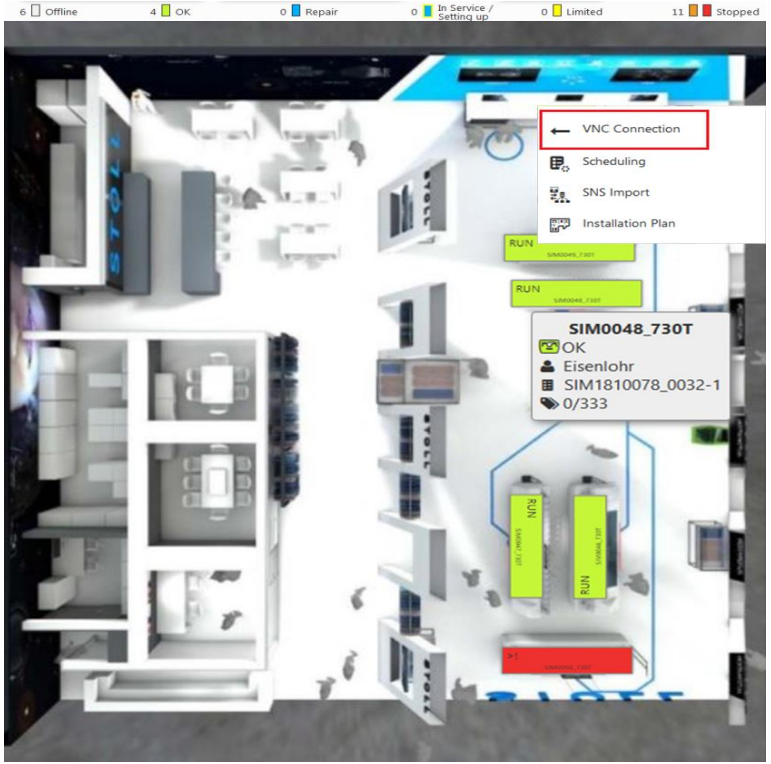



| AGG MC NAME | AGG USER NAME | AGG SEQ NAME | AGG PATTERN NAME | START_TIME | END_TIME | OVERALL DURATION | OVERALL DURATION WHILEMCON | TIME ADJUST | RUN DURATION | STOP DURATION | EFFICIENCY INCLUDING POWER OFF PC | STOP DURATION WHILEMCON | ENGAGING DURATION | YARN FEED DURATION | PIECE COUNTER ZERO DURATION | RES DU |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| {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 | |
| {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 | |
| {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 | |
| {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 | |
| {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 | |
| {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 | |
| {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 | |



**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

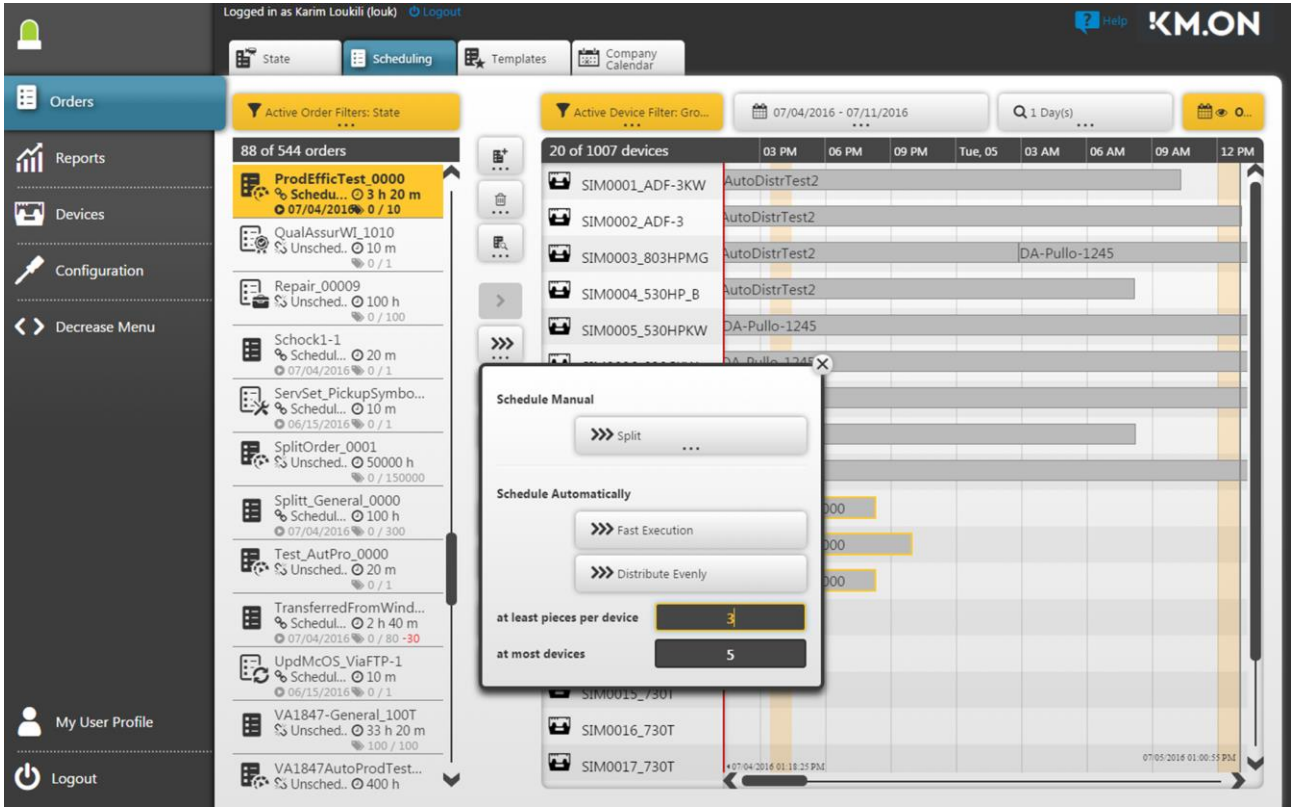
Realistic planning based on **operation calendar**

**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

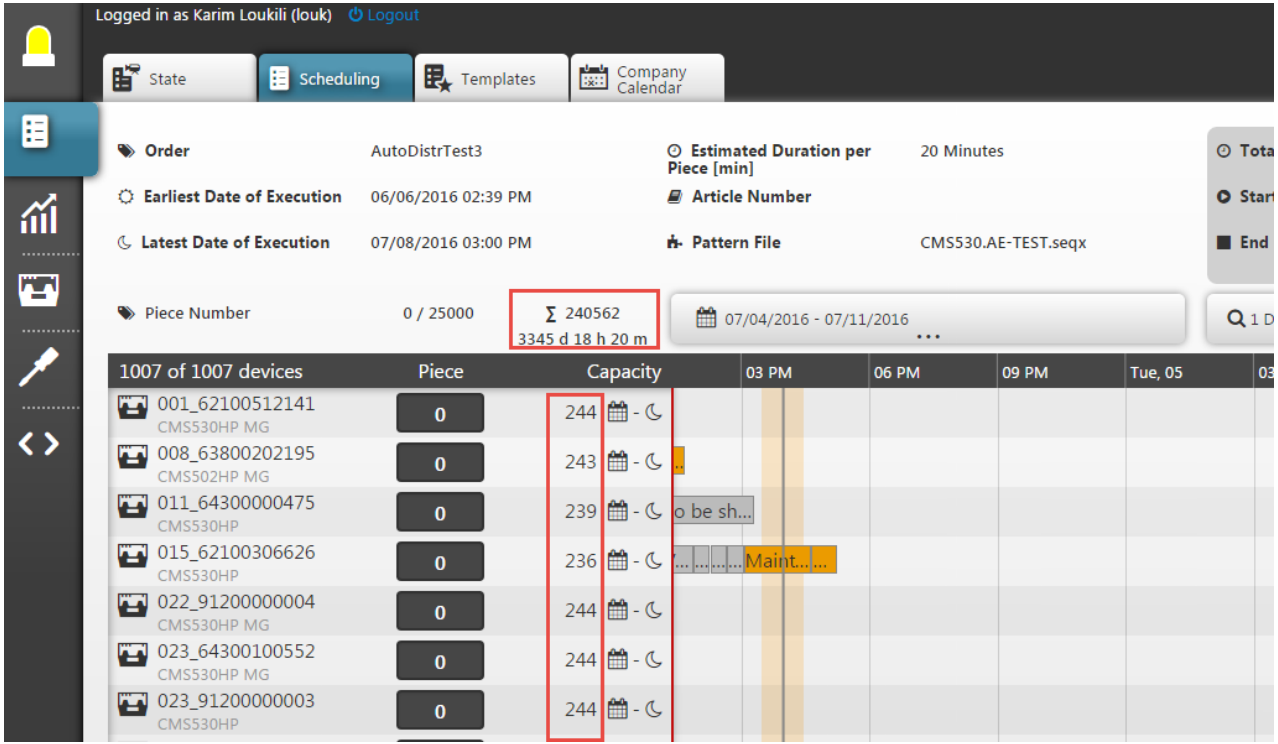



**Two scheduling algorithms** available

- **Fast execution** and **even distribution**

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

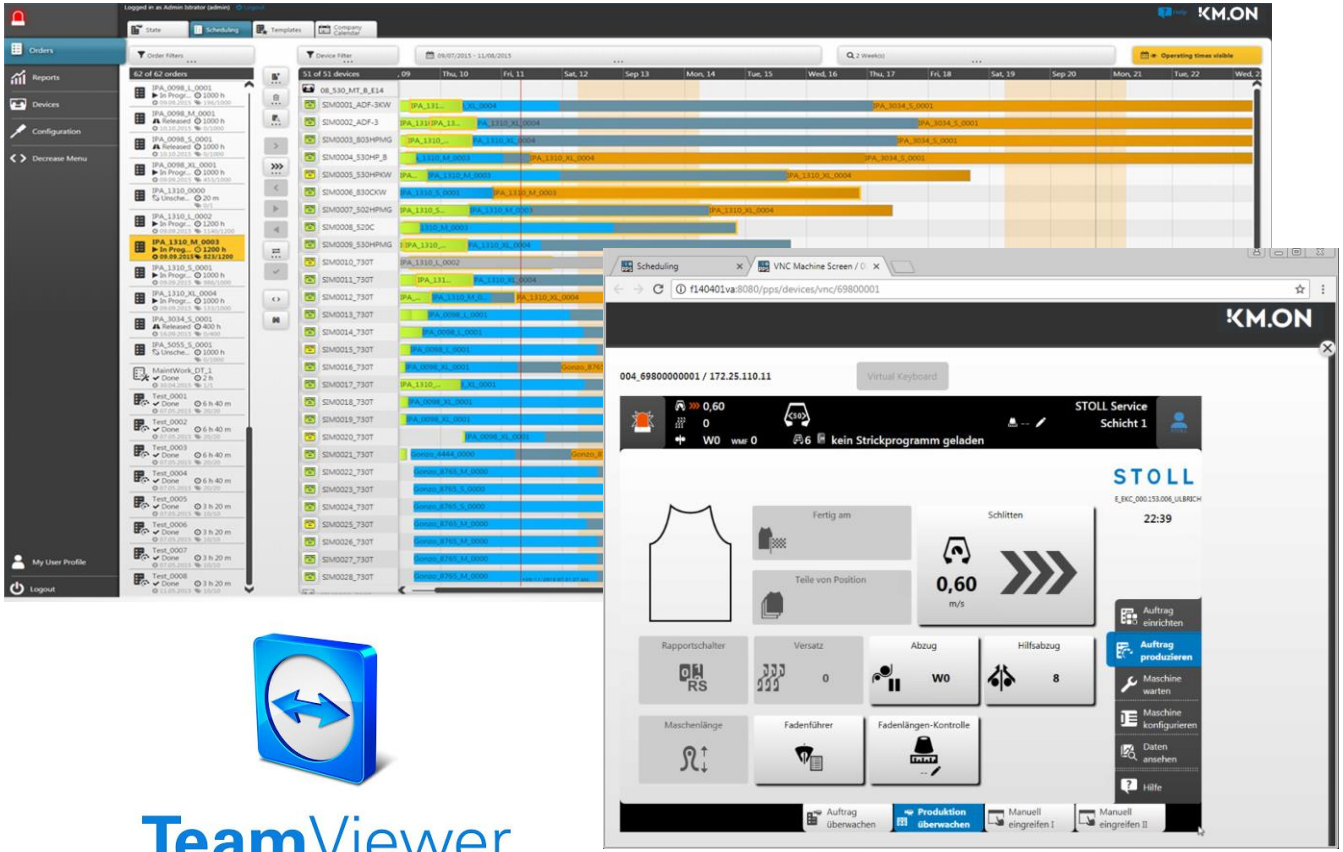
# 3. Get production capacity




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**

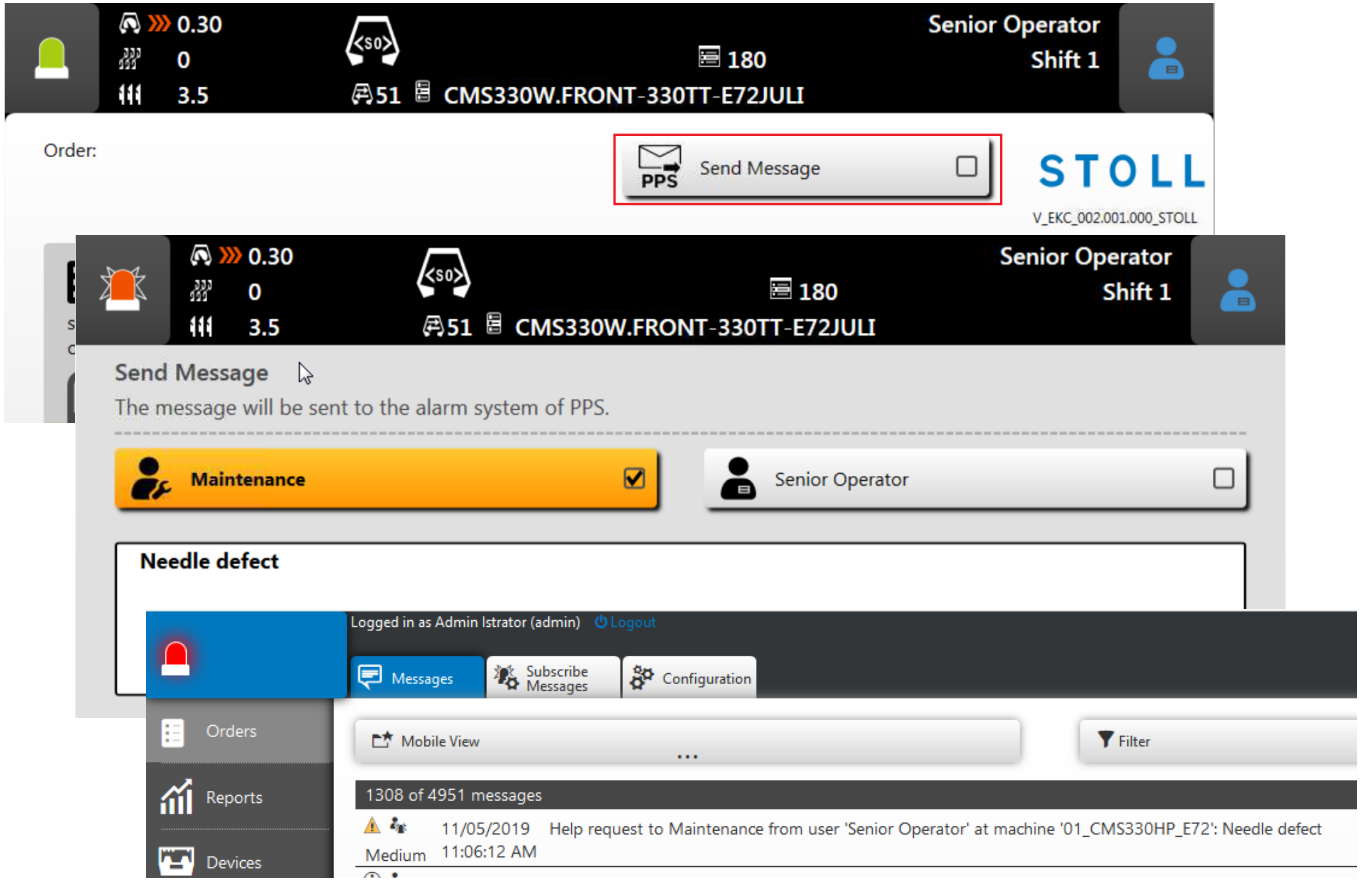
# 3. State of the art support with TeamViewer




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

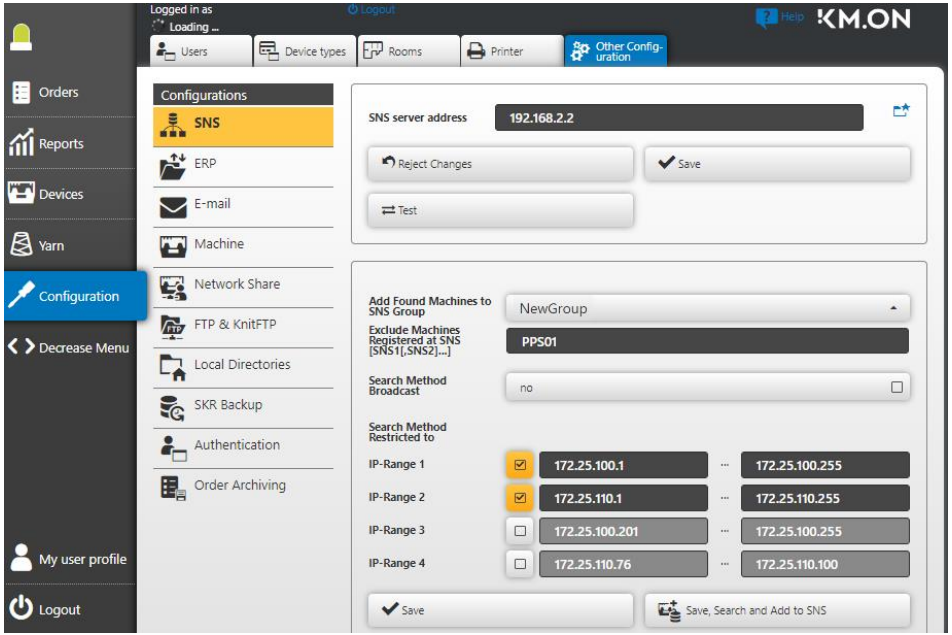



**Support** can be **requested** at **machine**

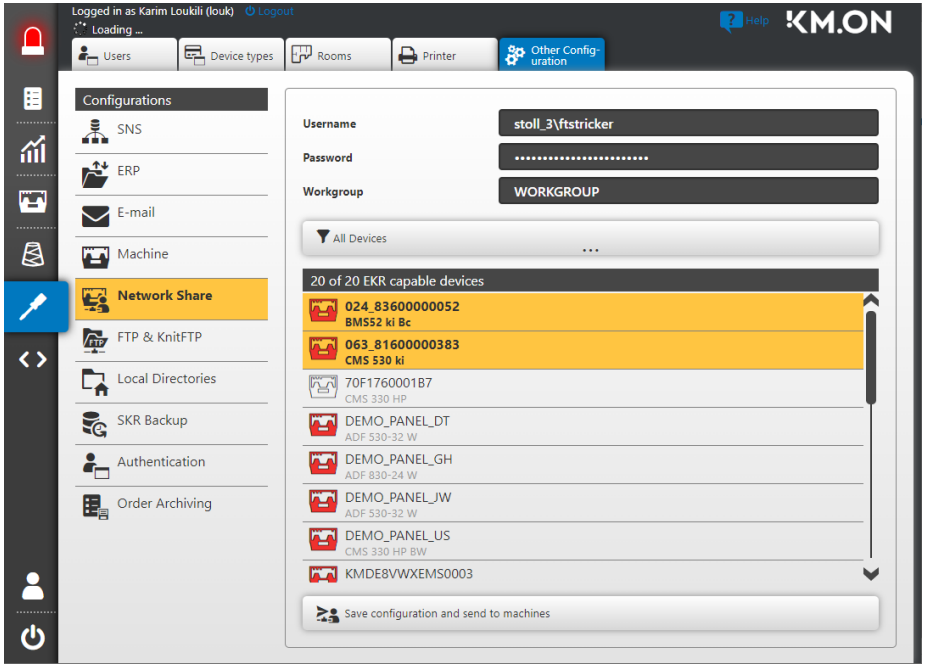
**Individually viewed** in **message** list

**Bound** to **alarming system**

# 3. Installation support

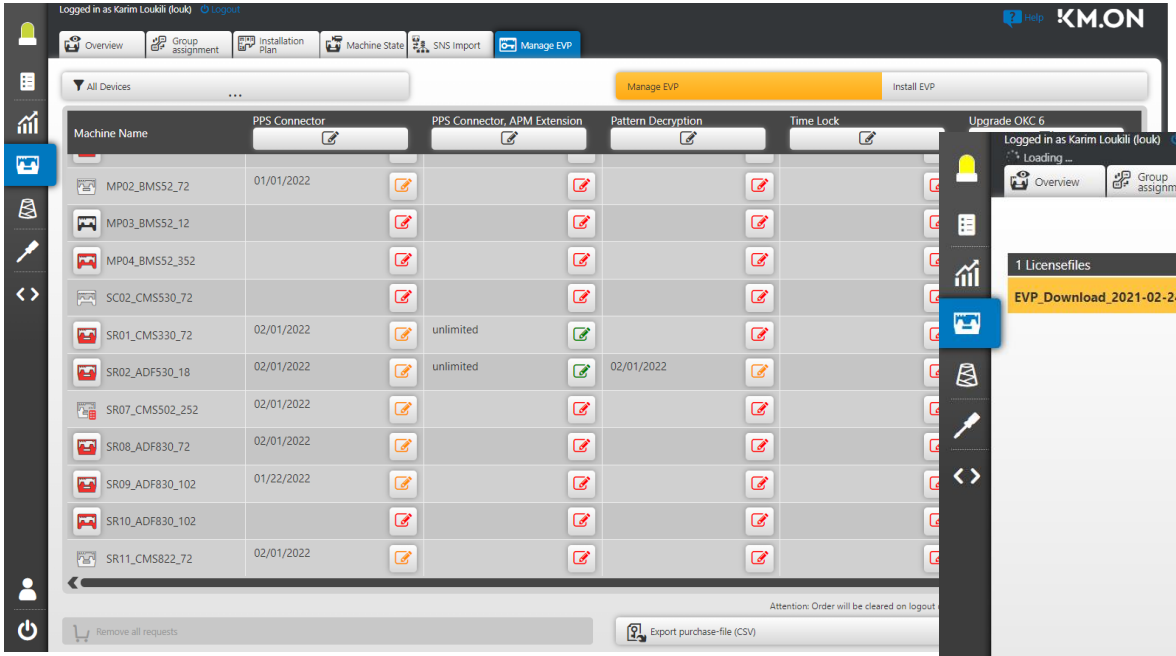



Search of new machines

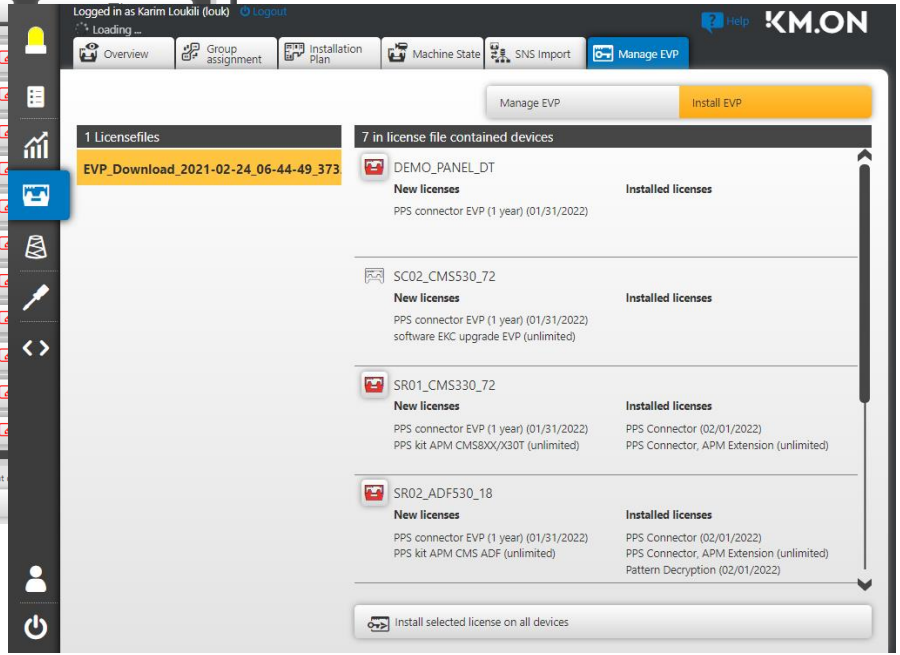



Distribution of network settings

# 3. Installation support



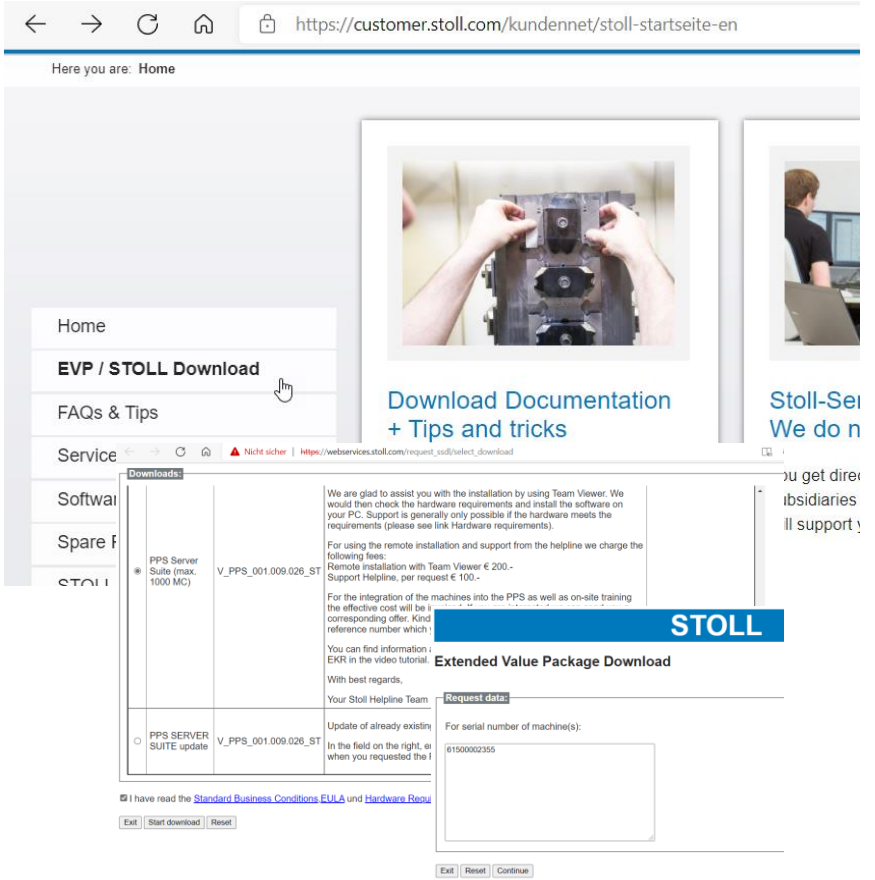

Determine the license status and export the order list



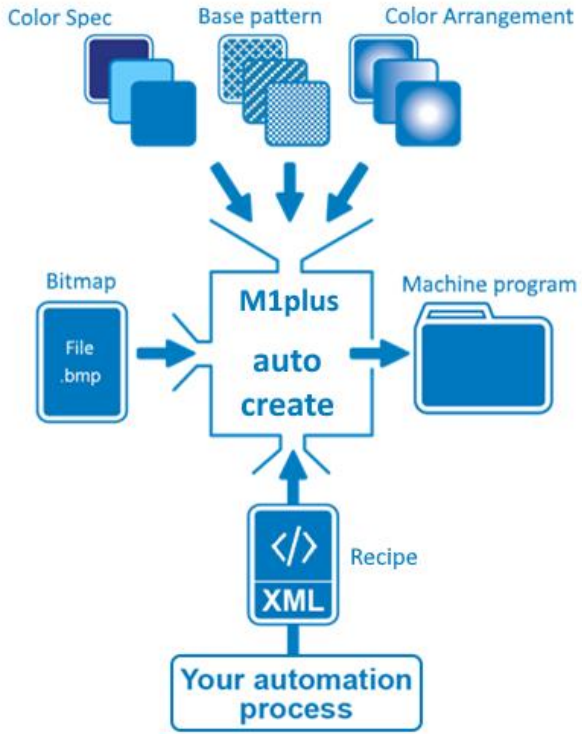

Distribute licenses

# 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**.



- **PPS** is **part** of the **knitteligence** 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

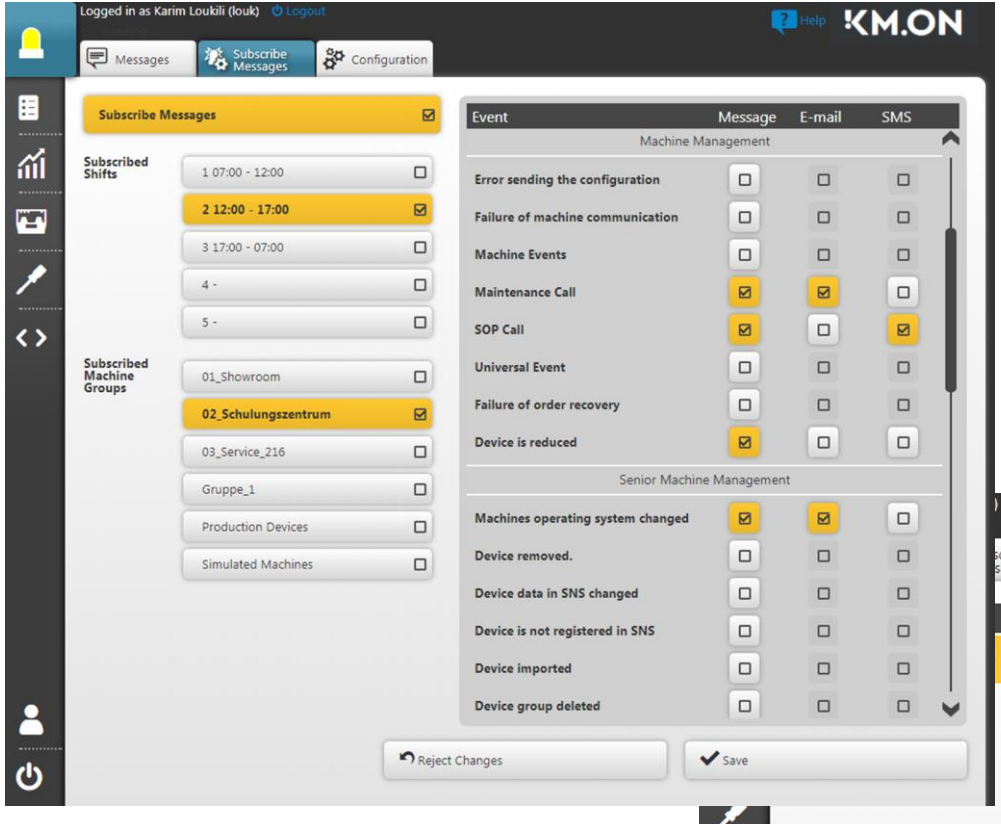
- **PPS supports** the pattern **encryption process**
- The **public keys required** for this can be **requested** from the **machine** via **service tickets** and **collected** in a **central folder**
- The **public keys** can thus be more **easily fed into the encryption process**
- Due to the **schedulability** 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**

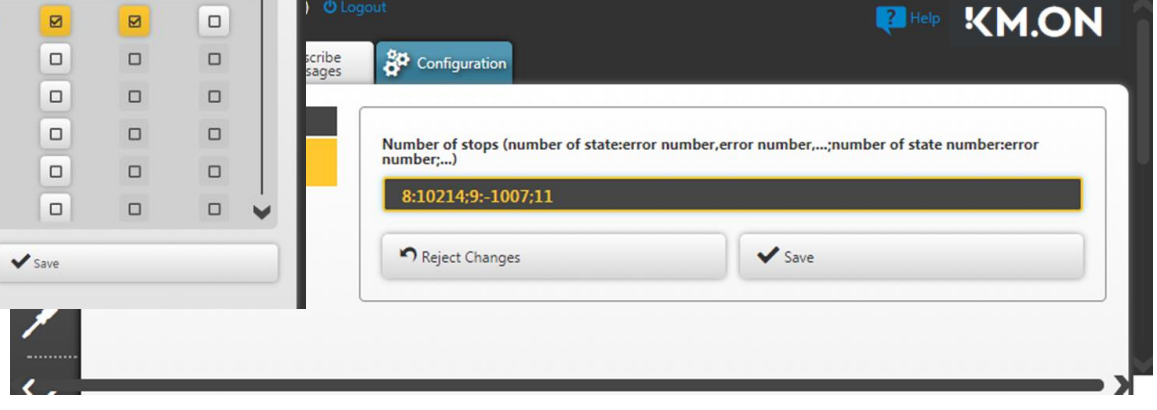
STOLL by KARL MAYER

- 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**

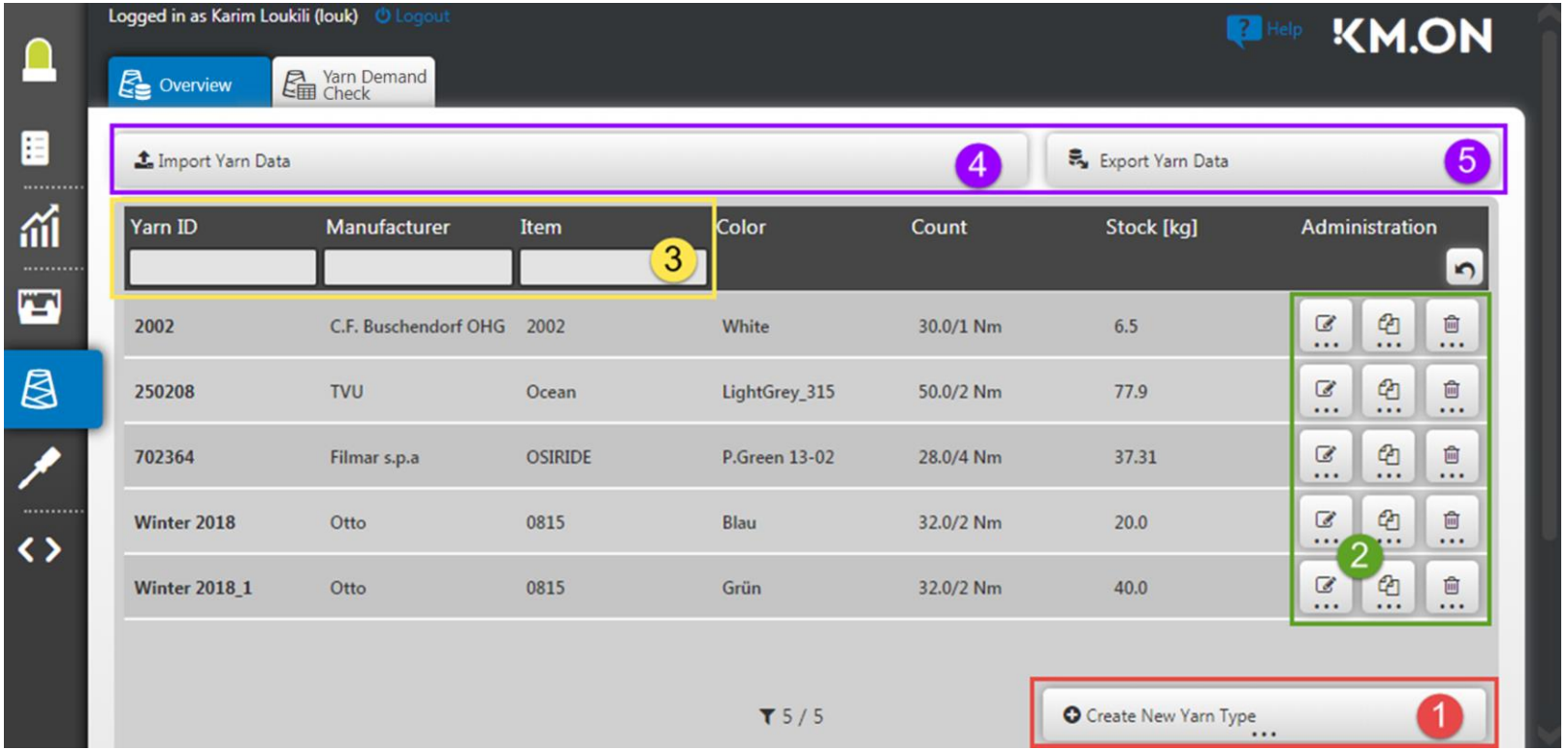
# 4. Alarm system




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.

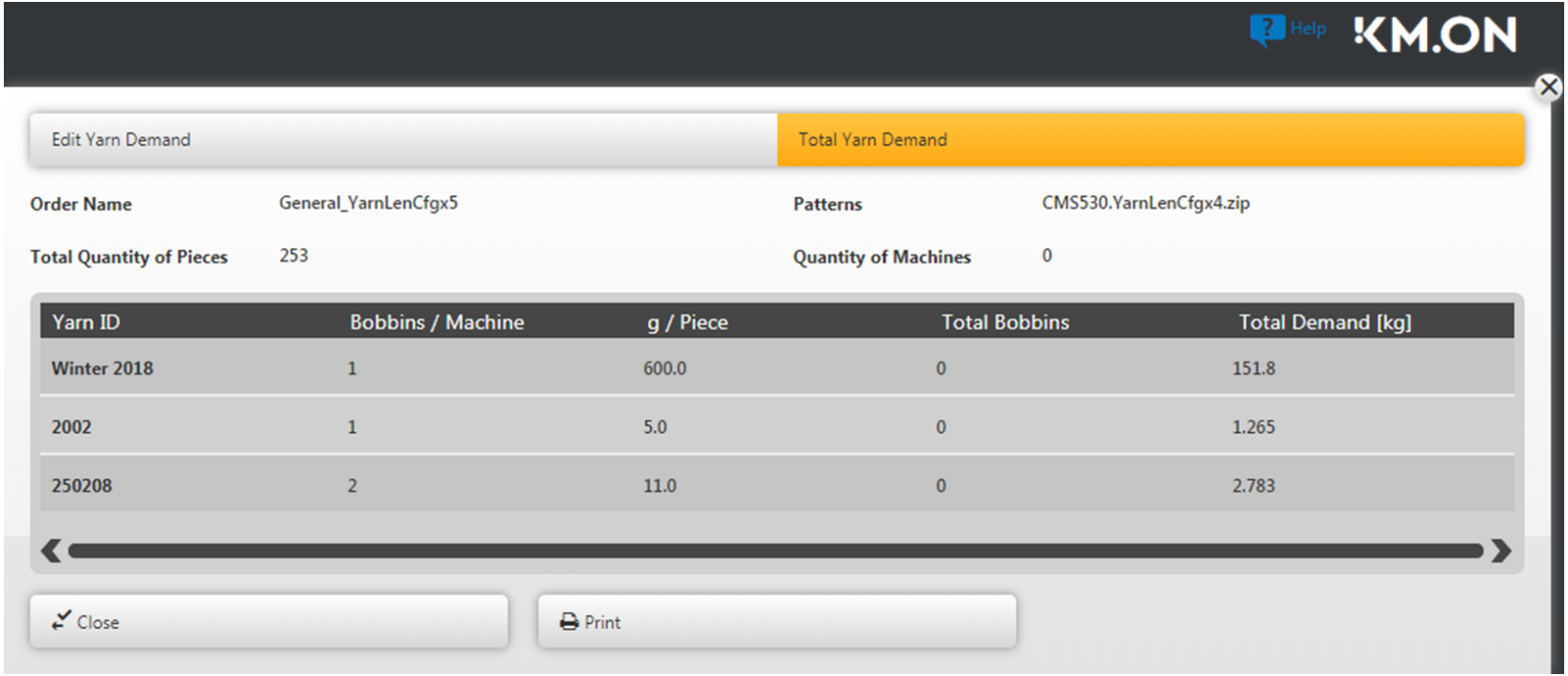


**Used yarns** and **yarn inventory** can be managed in the yarn DB



## 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**.



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

## Yarn Demand Report by Pattern

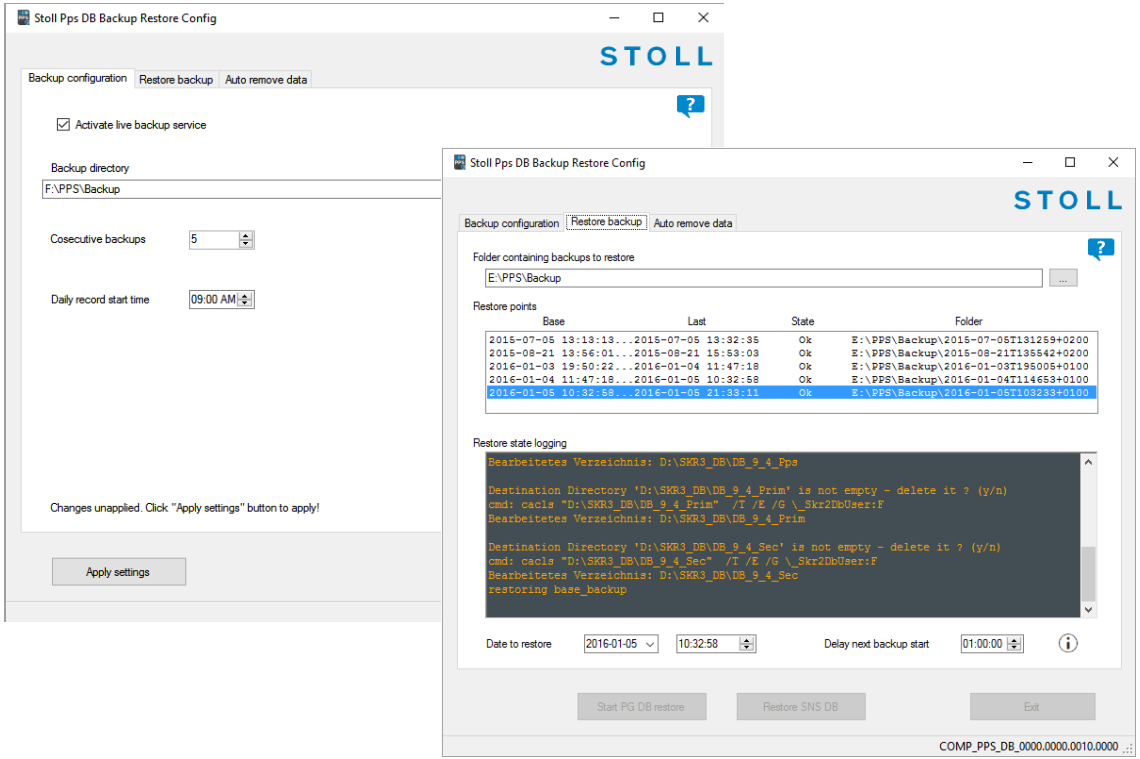
2019-10-15 - 2020-10-15

| | Yarn | 2002 | 2481-4374C | 250208 | 52654 | 5487207144 | 565024 | 570300 | 6348XX-0010 | 702364 | M1PluId: 200 | M1PluId: 201 | M1PluId: 204 | M1PluId: 205 | M1PluId: 206 | M1PluId: 207 | M1PluId: 208 | T239167 | 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]** |
| **Overall Total 2019-10-15 - 2020-10-15** | | **1.575** | **1.555** | **3.443** | **0.078** | **0.089** | **0.023** | **0.161** | **4.087** | **0.008** | **18.00** | **6.000** | **0.300** | **0.100** | **0.030** | **0.160** | **0.050** | **0.021** | **187.8** |
| **2019-10-16** | 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-RainInApril2018 | 0.001 | | | 0.007 | 0.008 | 0.002 | | 0.355 | 0.008 | | | | | | | | 0.021 | |
| | CMS530.MySeq-SpringBreeze2018 | 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 | | |
| | **Total 2019-10-16** | **1.499** | **1.555** | **3.276** | **0.078** | **0.089** | **0.023** | **0.161** | **4.087** | **0.008** | **18.00** | **6.000** | **0.300** | **0.100** | **0.030** | **0.160** | **0.050** | **0.021** | **178.7** |
| **2019-10-17** | CMS530.YarnLenCfgx4 | 0.076 | | 0.167 | | | | | | | | | | | | | | | 9.082 |
| | **Total 2019-10-17** | **0.076** | | **0.167** | | | | | | | | | | | | | | | **9.082** |

Oct 15, 2019 2:27 PM 1 / 1

# 3. Database live backup

## **Incremental live backup** enables **DB restore to the second**

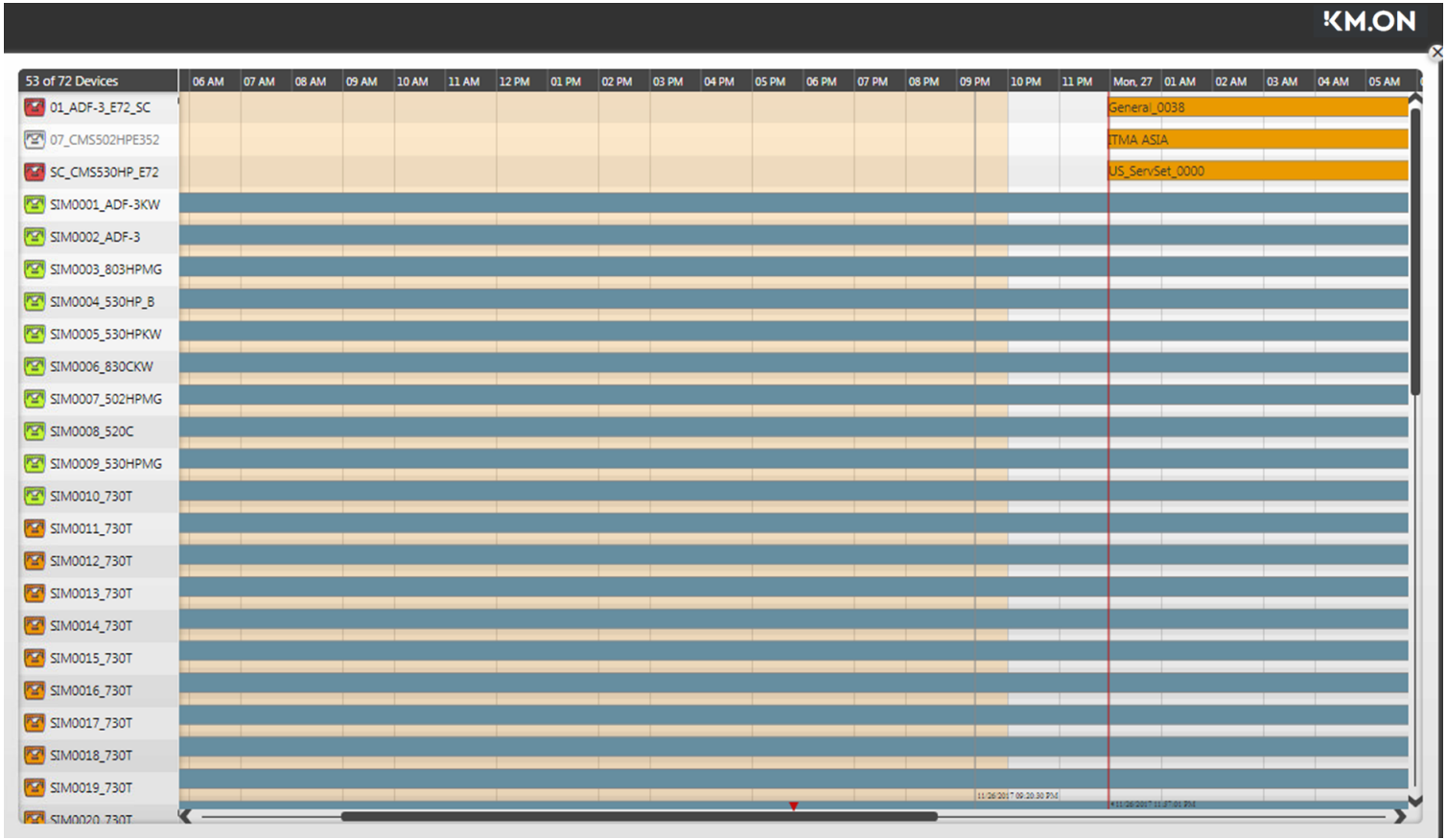



Ensures **operational safety**

**Facilitates relocation**

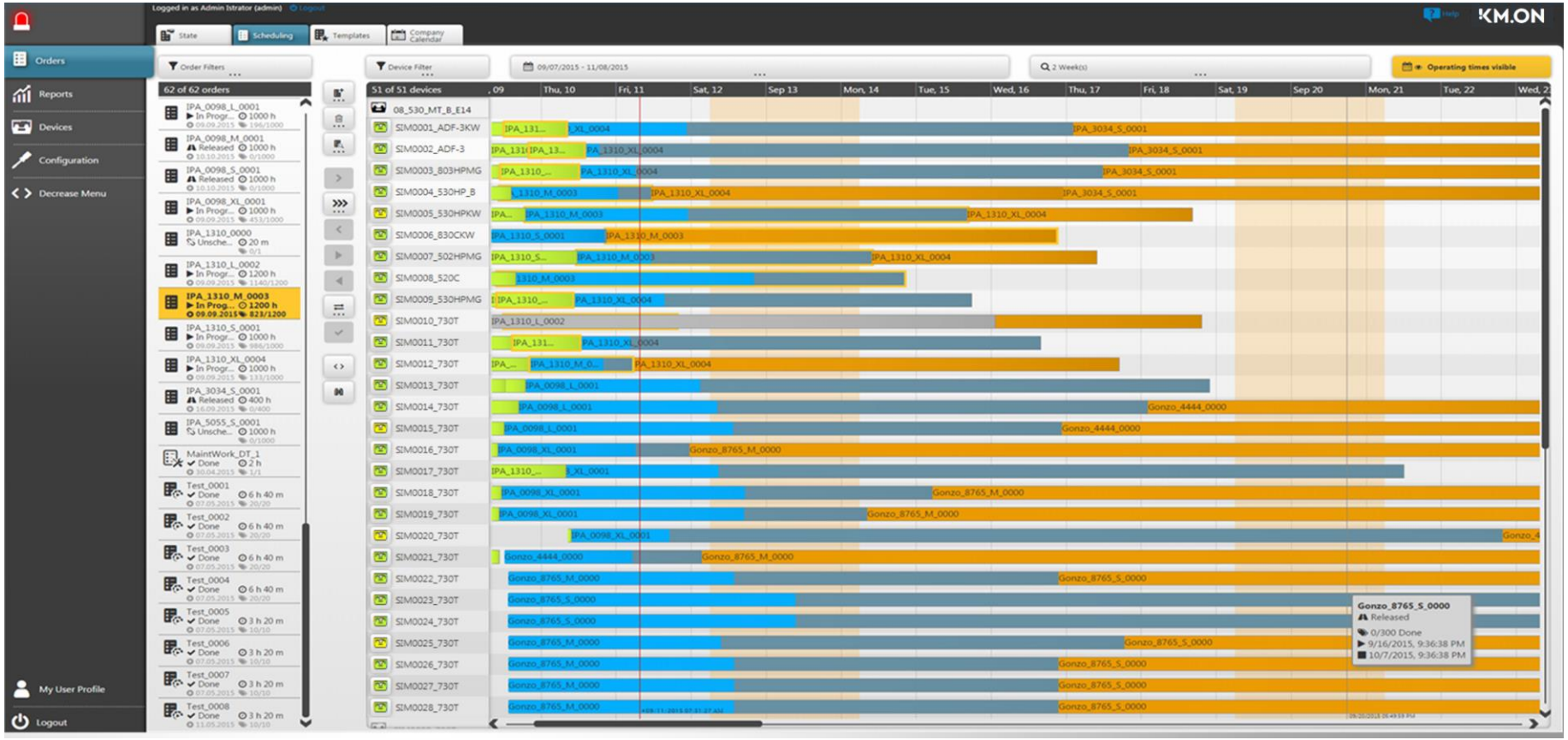
**Recovery** integrated in the PPS provides additional **security**

# 4. Order status




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

# 4. Optimize your production



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