# FACTBIRD

**USER GUIDE** | Production Insights







factbird.com

**Production Insights** 

# **Table of contents**

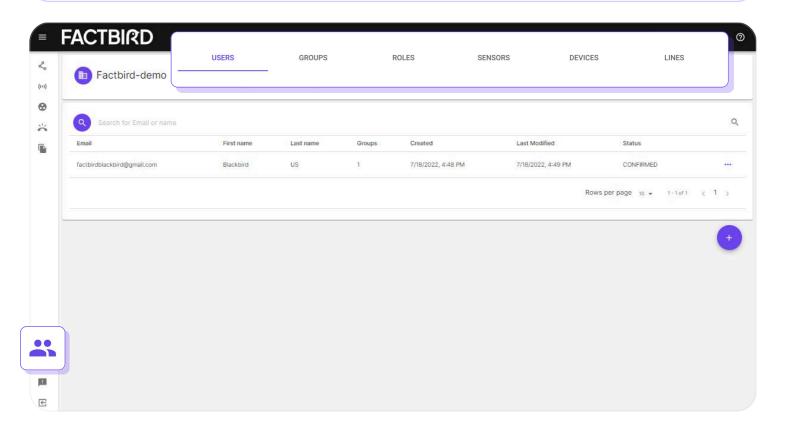
Administration	
Overview of Administration page	0
Claim devices and add sensors     Getting the Factbird device online with Wi-Fi	0
	0
Creating users	0
System configuration	
Sensor settings	0
Create lines	12
Set up Shift Schedule and Shift Dashboard	
How to use	
Live flow monitoring	16
Stop cause registration	17
Analytics	2
Batch set up and management	2
Productivity alarms	2
• Andon	2
New feature	
Golden batch	3
Assistant	3
Assistant	

FACTBIRD 00

# Administration

### **Elements**

- Users: Create user
- Groups: Manage user groups
- Roles: Manage user access and permissions
- Sensors: Inputs e.g. sensors, cameras, PLC cables
- Devices: IoT boxes claimed to your system
- Lines: A line consists of one or more sensors

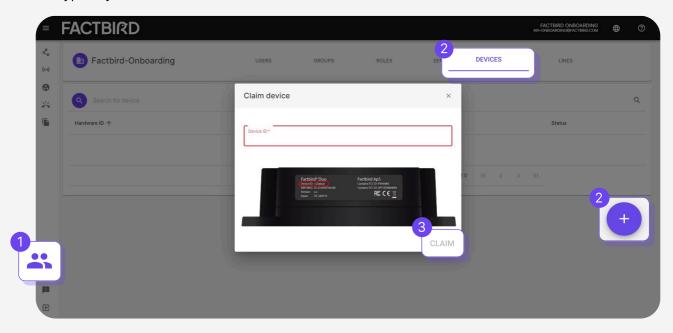


# Claiming devices

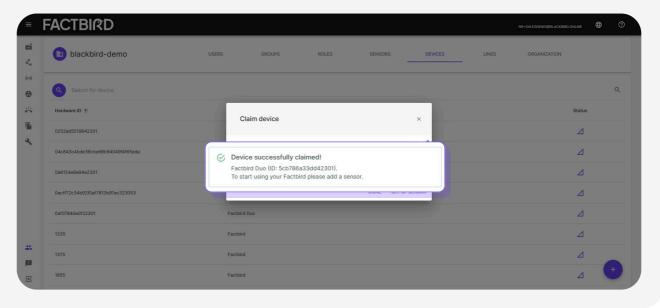
1

### Claim your devices in Factbird

- 1. Go to "Administration" page.
- 2. Go to the "DEVICES" tab and click the + icon.
- 3. Type in your "Device ID" and click "CLAIM".



4. Device successfully claimed!



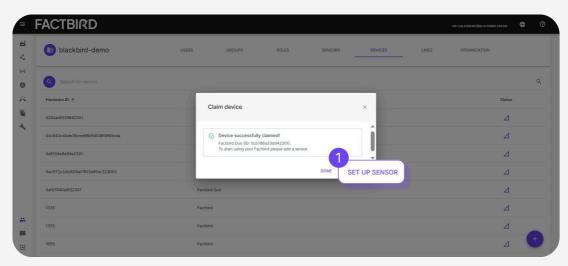
# Adding sensors

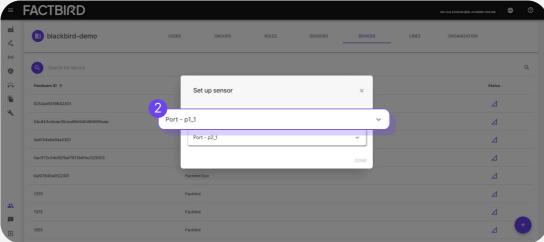
**2**a

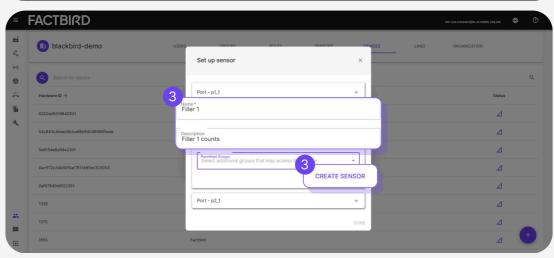
### **Add sensors**

If you have just claimed a device, start from this pop up.

- 1. Click "SET UP SENSOR".
- 2. Click Port.
- 3. Type in "Name and Description" and click "CREATE SENSOR".







# Adding sensors

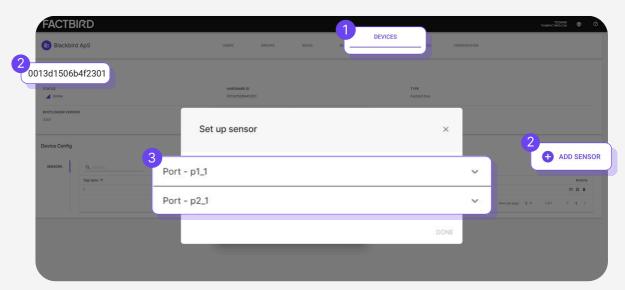
2b

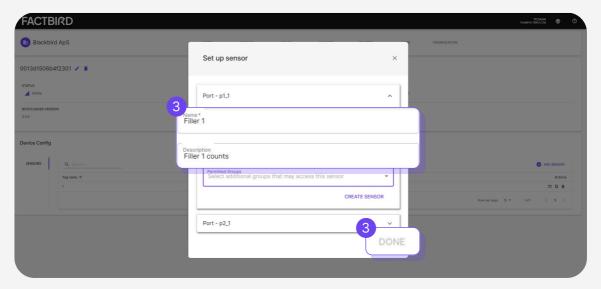
### **Add sensors**

If you already have a device claimed:

- 1. Click "DEVICES" tab from Administration page.
- 2. Click on the device and then click on "ADD SENSOR".
- 3. Click Port-1 or Port-2, type in the name and the description, click "DONE".
- 4. It will be marked as "Created".

You can view the sensor on "SENSORS" tab.





# Getting the Factbird device online with Wi-Fi

1

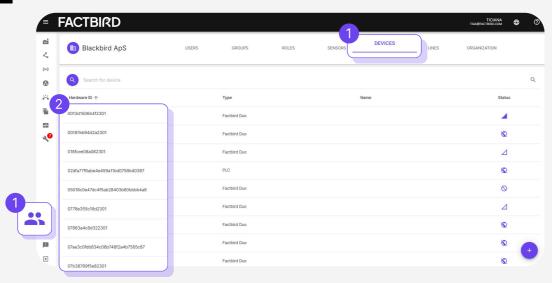
### To set up Wi-Fi, make sure the Factbird device is first online via mobile network

• Ensure the Factbird device is connected to the mobile network by checking if the device's Status LED remains solid green. Only after ensuring that the device is online, you can move on to the next step and set up Wi-Fi.

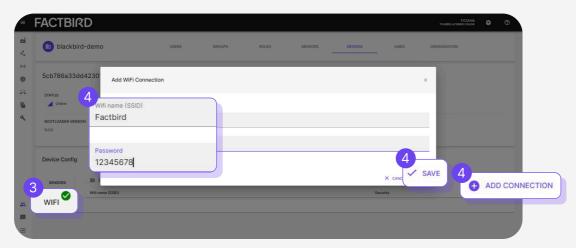
2

### Wi-Fi setup

- 1. Navigate to "Administration", then select "DEVICES" tab.
- 2. Click on the device you wish to connect.



- 3. In "Device Config", go to the "WIFI" tab.
- 4. Click on "ADD CONNECTION", input the WiFi name and password, then click "SAVE" and enable WiFi.
- 5. Confirm that the Factbird device's LED changes from steady green to steady blue once it's successfully online via Wi-Fi.

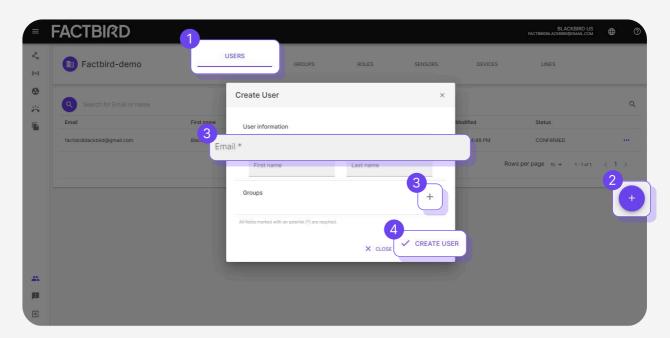


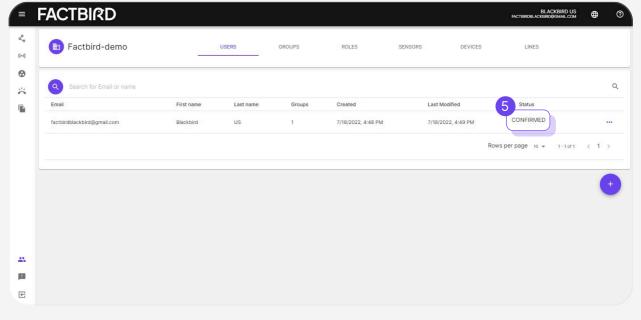
# **Creating users**

1

### Create new users

- 1. Go to the "USERS" tab on "Administration" Page.
- 2. Click the + icon.
- 3. Fill out Email and choose "Groups" by clicking +. e.g. Choose SUPER.
- 4. Clicking "CREATE USER" sends the welcome email to the user.
- 5. Once the user activates the user account from the welcome email, it shows "CONFIRMED" on the USER tab.





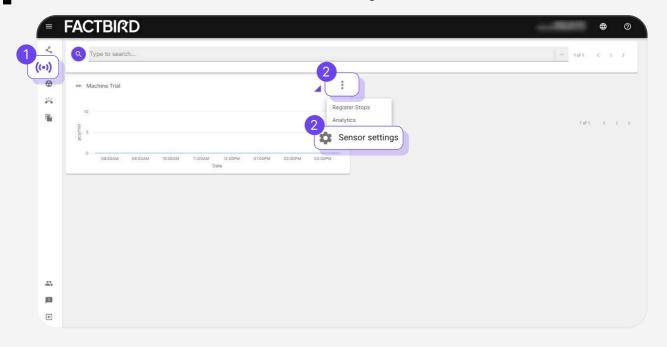
**System Configuration - Sensor Settings** 

# Sensor settings

1

### Go to sensors settings

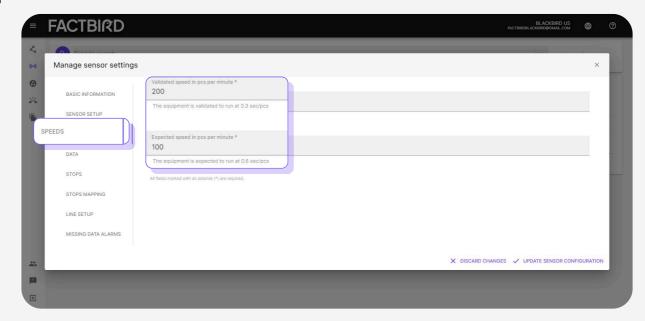
- 1. Click on "Sensors" from the menu on the left side of the view
- 2. Click on the three dots and select "Sensor settings"



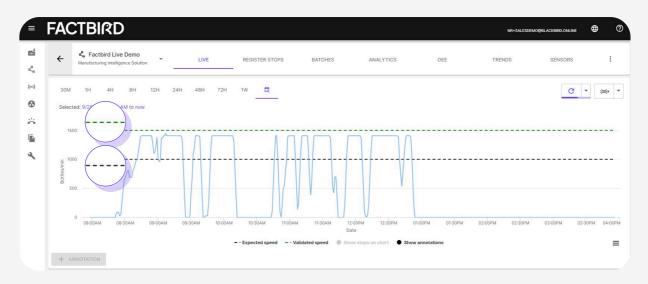
2

### **Set production speed**

Now that you are in "Sensors settings", go to the "SPEEDS" tab and set your Validated speed and Expected speed.



**System Configuration - Sensor Settings** 

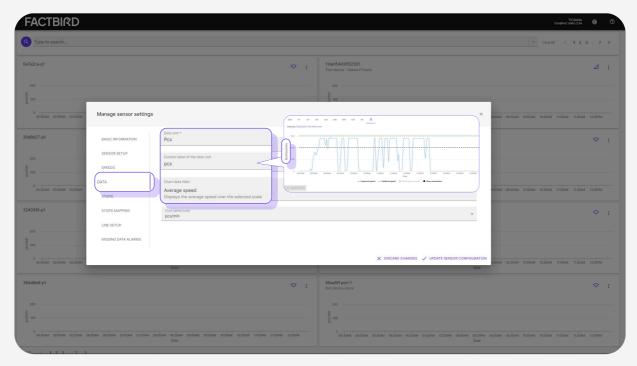


- Validated speed (green line):
   Max production speed = Highest speed (used for calculating speed loss and OEE)
- Expected Speed (black line):
  Expected production speed while running (used to calculate target)

3

### Set up custom label for live graph and choose visualization options

Go to "DATA" tab to customize visualization.

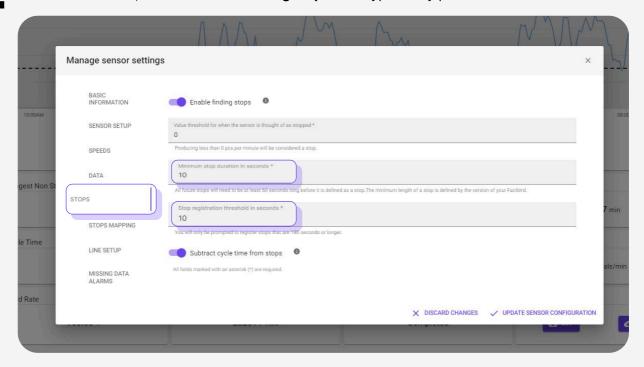


- Data unit: Counter is Pcs
- Custom label of the data unit: e.g. Pcs, bottle, pack, foot
- Chart data filter: How you want to visualize data on the graph. "Average speed" is recommended for counter sensors.

4

### Set up stop cause registration setting

Go to "STOPS" tab, turn on "Enable finding stops" and type in key parameters.



### Key parameters:

### • Minimum stop duration in seconds:

The sensor will start logging a stop if a count is not detected for more than the value in "Minimum stop duration in seconds".

### Stop registration threshold in seconds:

The user will be prompted to register stop causes if stops are more than the value in "Stop registration threshold in seconds". Any stop shorter than this threshold will be automatically registered as "Micro-stop"

### · Example:

If a sensor does not detect a count for more than 60 seconds (60 in "Minimum stop duration in seconds"), the system will start logging a stop. If stop continues for more than 600 seconds (600 seconds in "Stop registration threshold in seconds"), the system will prompt the user to register a stop cause.

### Subtract cycle time from stops toggle:

Cycle time subtraction works by subtracting the cycle time before determining whether there is a stop in Factbird. The cycle time is derived from the "**Validated speed**" of the sensor, batch, or product. Examples are:

- In the case of long cycle time production (e.g., 15 minutes for one product, 30 minutes for another), using this function with the batch function enables you to detect stops by product.
- In the case of a fast production line (short cycle time), using this function enables you to calculate downtime more precisely. For example, instead of logging a stop for 10 seconds, you subtract a cycle time of 6 seconds and log the stop for 4 seconds.

**System Configuration - Sensor Settings** 



### Confirm the sensor setup

Go to "SENSOR SETUP" tab, confirm the setup.

- "Data multiplier": The number in this field is used to multiply the sensor value.
- "The type of wiring for the attached sensor": Choose the type of the sensor connected.
- "Rollover value" "Rollover threshold": For Factbird DUO, please leave the default values for the Rollover value (65536) and Rollover threshold (300) unless adjustments are required for custom hardware or a specific use case. The Rollover value is defined by the maximum number that can be counted by the hardware. The Rollover threshold is defined by the maximum number that can be counted within one sample and used by the system to discern instances of hardware power cycling or rollovers.
  - For a specific case, e.g., using a PLC:
     Rollover value: In the case of a 16-bit counter, the maximum value it can count is 2^16 (two to the power of sixteen). The Rollover value should be set to 65536.
     Rollover threshold: If the line-validated speed is 100 pcs/min and the sample rate is every 5 seconds, the maximum number within one sample is 100 pcs / 60 seconds× 5 seconds=8.33 pcs. Normally, it is recommended to double the value to get a good threshold. In this case, 16.

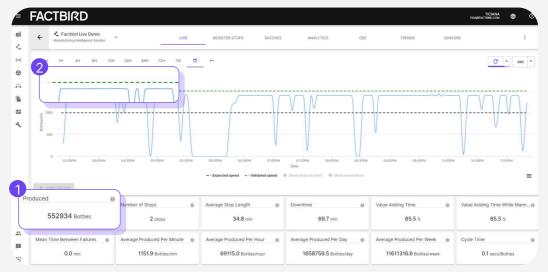


The "Counter can reset" checkbox should be always selected for Factbird DUO.



### Validate the data

- 1. Confirm "Produced" amount in KPI. This shows the number of items produced.
- 2. Confirm output is lower than the green line "Validated speed".

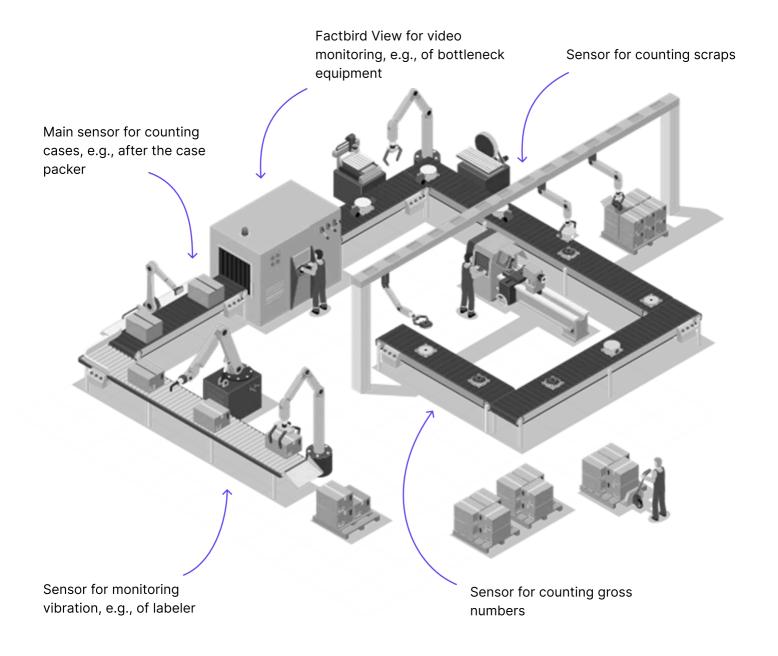


- Green line = Validated speed
- Black line = Expected speed

# **Understanding lines and sensors**

### What is considered a 'Line' in Factbird?

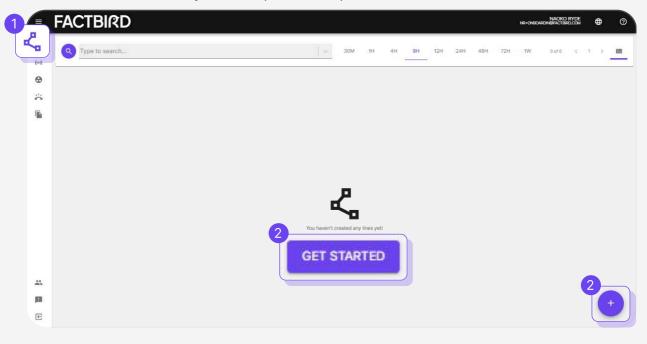
- A 'Line' in the Factbird system consists of one or more sensors.
- One line has one OEE and one batch, no matter of how many sensors it consists of.
- Every line has one main sensor for bottleneck and one other sensor to supplement the main sensor's data analysis.
- Line is normally a combination of equipment where the product flows without physically leaving the line.

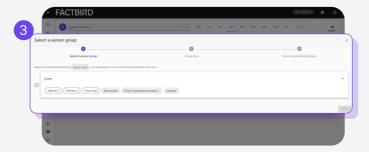


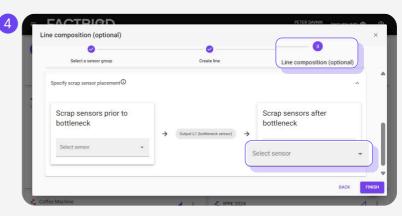
# **Creating lines**

**Create lines** 

- 1. Click on "Lines" from the menu on the left side of the view.
- 2. Click on "GET STARTED" or "+".
- 3. Follow the steps to create a line.
- 4. If you have multiple sensors, one of which is a scrap counter, you can select the sensor as a scrap sensor in the "Line Composition (optional)" step.







**FACTBIRD** 

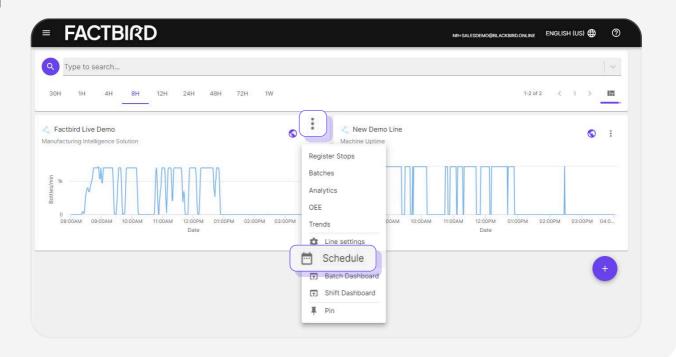
12

# Setting up shift schedule

1

### Set up shift schedules

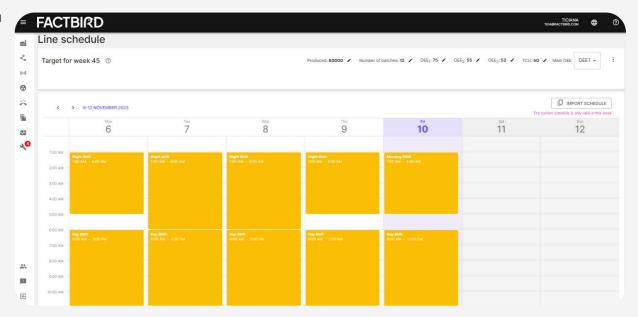
Click on the three dots of a line and select "Schedule".



2

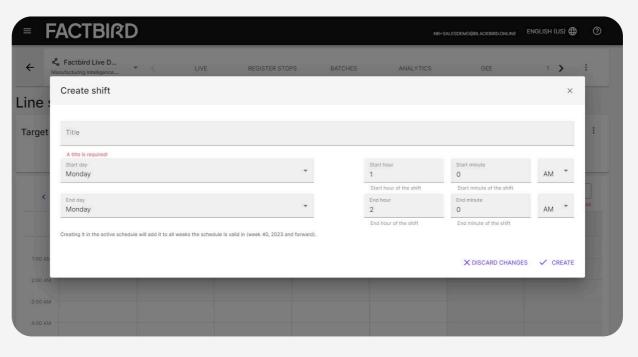
### **Create shifts**

Click anywhere on the calendar to create a daily shift for that week; this will recur every week.



System Configuration - Set up Shift Schedules and Shift Dashboard

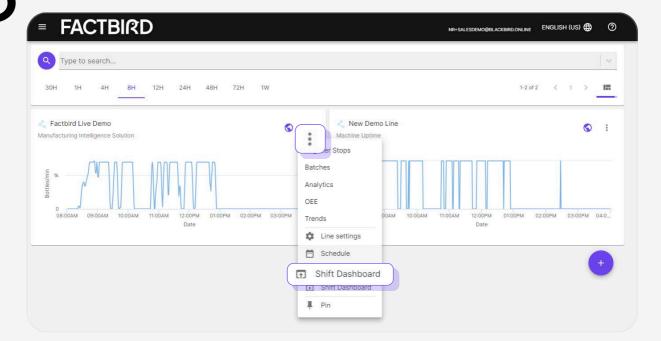
Fill in the information to create the shift and click on "CREATE".



# Visualizing real time shift progress

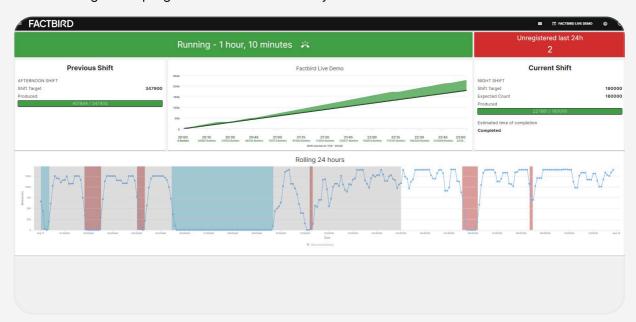
Visualize real time shift progress against shift target

Click on the three dots on the line and select "Shift Dashboard".

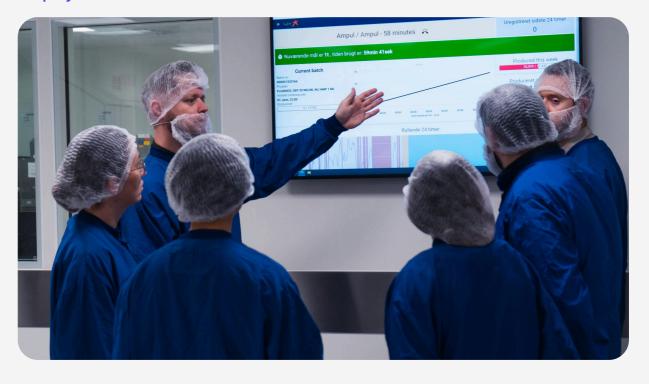


# System Configuration - Set up Shift Schedules and Shift Dashboard

The shift target and progress will be automatically calculated and visualized.



## Display Dashboard on a flat screen

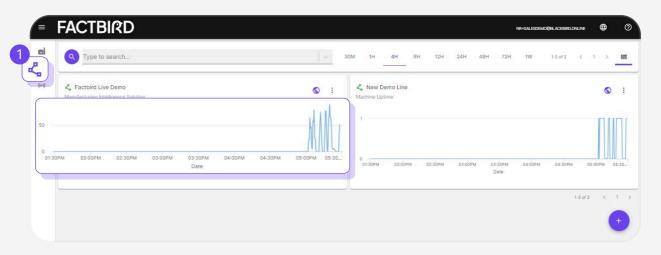


# Monitoring live data

1

### Live page

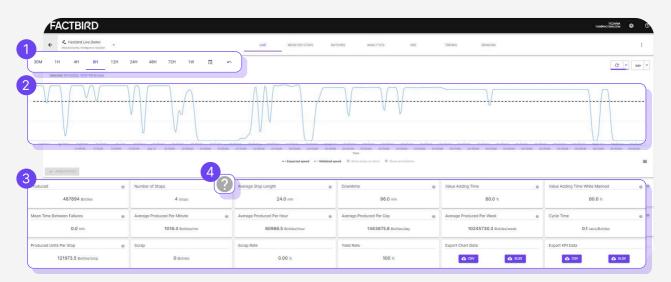
- 1. Click on "Lines" from the menu.
- 2. Choose the desired line.



2

### Monitor live flow and KPIs

- 1. Choose a time range, such as "Last 24 hours", "1 week", or "Morning Shift" (click the calendar icon for more presets).
- 2. Zoom in on the live graph by dragging and dropping.
- 3. View various KPIs below the live graph. KPIs are dynamic and automatically calculated based on the selected time range.
- 4. Hover over the "?" mark on each KPI for more information.



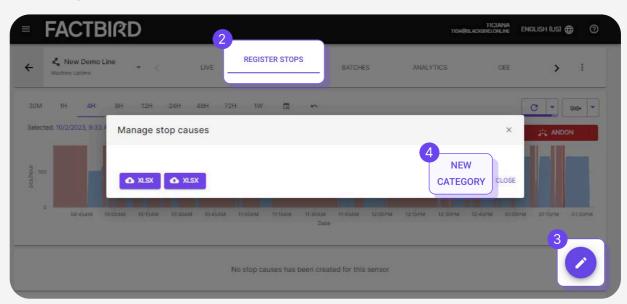
• Real time production output: X axis - time, Y axis - volume

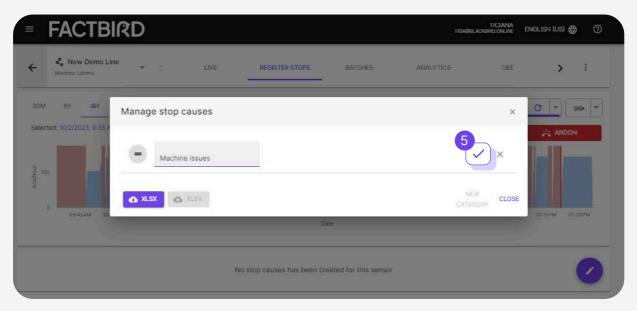
# **Creating stop causes**

1

### **Create stop categories**

- 1. Select the line you want to configure.
- 2. Go to "REGISTER STOPS" page.
- 3. Click the purple pen icon.
- 4. Click "NEW CATEGORY" and create a category. e.g. Machine issues
- 5. Check ✓ icon to save

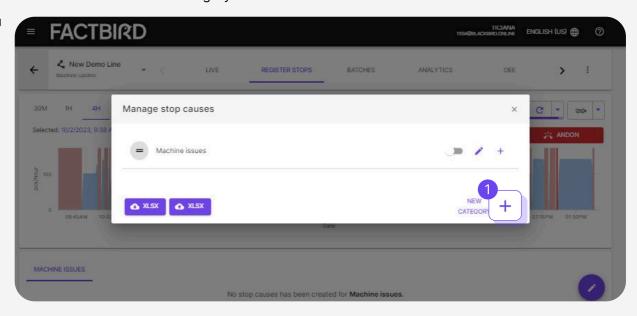




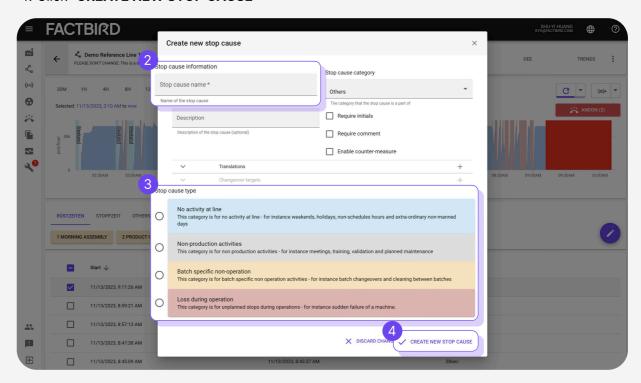
2

### **Create downtime reasons**

1. Click the + icon in the category to create a downtime reason.



- 2. Type in the stop cause name
- 3. Select the correct type from "Stop cause type" e.g. Loss during operation
- 4. Click "CREATE NEW STOP CAUSE"



Mass importing is available for users who already have a list of downtime categories/causes.

# Registering causes on detected stops

1

### Select unregistered downtime (indicated by a red bar with no text)

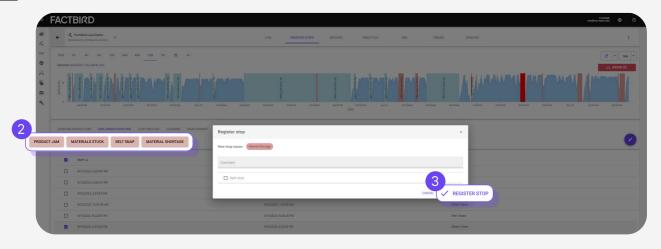
- 1. Navigate to your desired line then click the "REGISTER STOPS" tab.
- 2. Select downtime by clicking the red bar.



2

### Select a downtime reason and complete registration

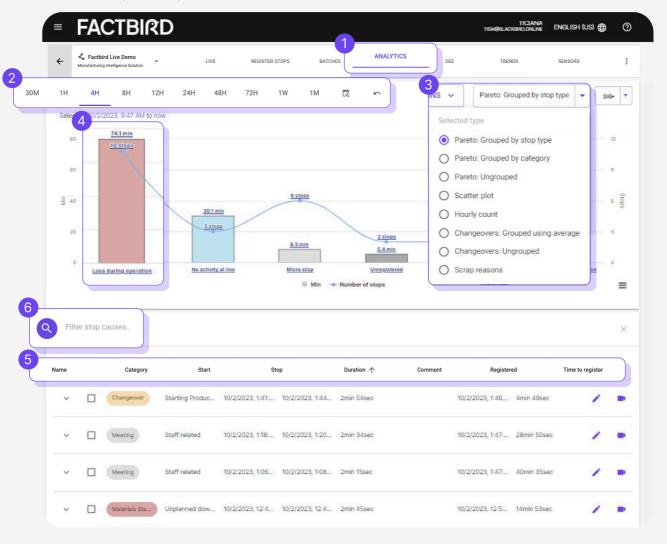
- 1. Navigate the categories just below the graph, then choose the correct downtime reason
- 2. Click "REGISTER STOP"



# **Downtime analytics**

## **Downtime analytics**

- 1. Navigate to your desired line then click the "ANALYTICS" tab.
- 2. Select a time range e.g. last 24 hours, morning shift etc..
- 3. Select a chart type.
- 4. Click on a bar to see the breakdown.
- 5. Click a column to sort the list of stops. e.g. Duration to see the longest stops.
- 6. Filter stops as required.



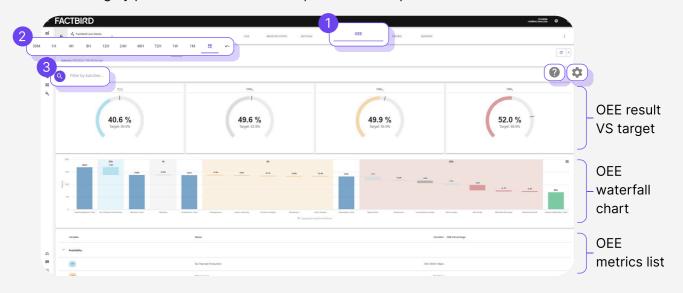
Hourly count chart: Shows analytics and issues for each hour Scatter plot: Shows how frequently issues are progressing Scrap reasons: Shows a distribution chart of scrap reasons

# **OEE** analytics

2

### **Overall Equipment Efficiency (OEE) analytics**

- 1. Navigate to your desired line then click the "OEE" tab
- 2. Select a time range e.g. last 24 hours, morning shift etc..
- 3. Filtering by product in the search field provides SKU specific OEE.



- The gear icon ( allows to type in OEE targets on OEE meters.
- The "?" (1) shows how various OEE metrics are calculated in the Factbird system.
- Scrap is calculated automatically as quality loss. Scrap sensor can be set up on "Line Settings".

For more information on calculating OEE, please visit our website.

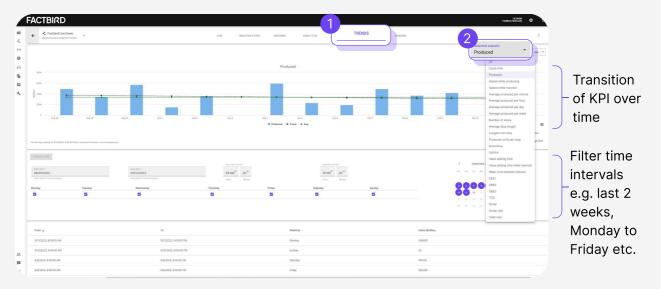
OEE complete guide is available here.

# **KPI trend analytics**

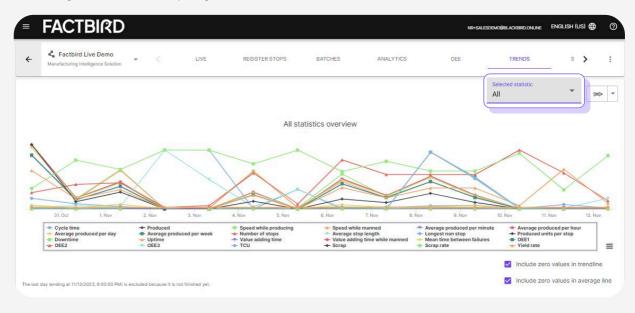
3

### **Trend of Key Performance Indicators (KPIs)**

- 1. Navigate to your desired line then click the "TRENDS" tab or any KPI on "LIVE" page.
- 2. Choose a KPI you want to see over time by clicking on "selected statistic" e.g. OEE, produced, downtime.



Choosing "All" allows analysing correlation between KPIs.



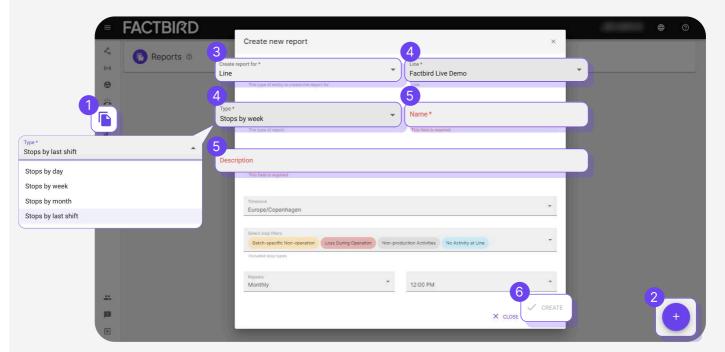
# Scheduled reports

4

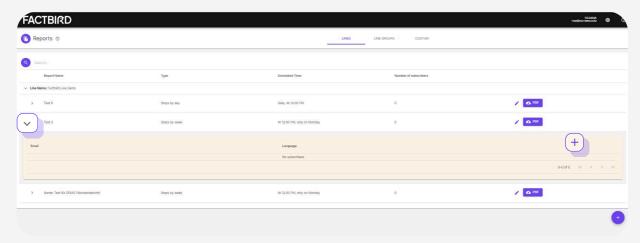
### **Scheduled reports**

Built-in scheduled report capability schedules PDF performance report to selected emails at desired times.

- 1. Select "Scheduled reports" from the menu
- 2. Click "+" to add report
- 3. Select "Line" in the "Create report for" dropdown
- 4. Select desired line & report type. e.g. Selecting "**Stops by last shift**" generates a shift report sent out every time a shift ends.
- 5. Input report name and description
- 6. Click "CREATE"



7. After creating the report click the arrow corresponding to the report to add subscribers (email that will receive the report)



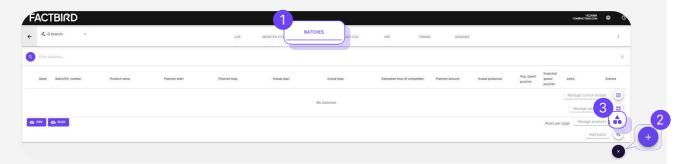
# **Creating products**

### What is a batch?

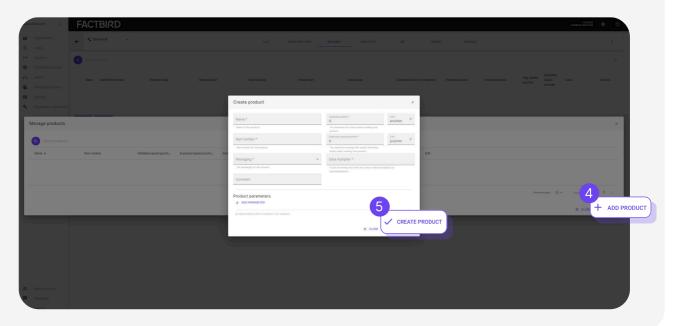
PO or a work order of a product with planned production amount.

### **Create products**

- 1. Navigate to your desired line then click the "BATCHES" tab
- 2. Click "+" to:
- "Manage packagings": Unit of products such as pcs, bottles, can, boxes. Pcs is default.
- 3. Click "Manage products"



- 4. Click "ADD PRODUCT" and fill in the required fields
- 5. Click "CREATE PRODUCT"

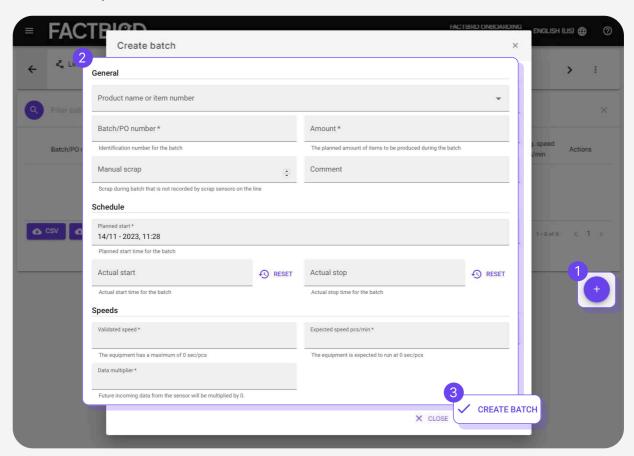


# **Creating batches**

2

### **Create batches**

- 1. Click the "+" icon and click on "Add batch"
- 2. Select the product from the dropdown menu and fill in the required fields
- 3. Once done, click on "CREATE BATCH"



Created batches can be viewed on the list of batches.

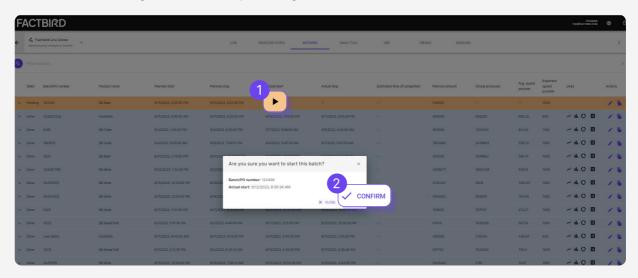
# Starting and stopping batches

3

### Run a batch

- 1. Click the play icon to start a batch
- 2. Click "CONFIRM" on the pop-up window.

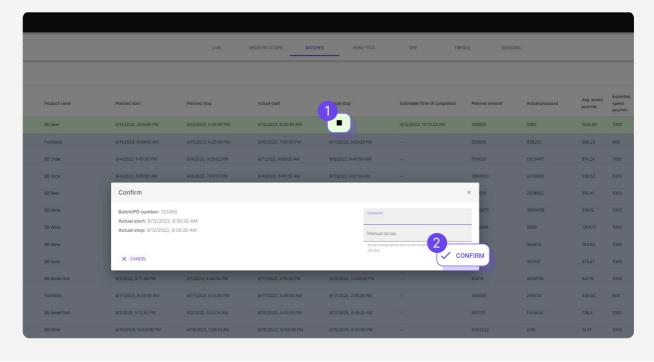
  The batch turns green = currently running batch



Use the search bar to find batches by keywords

### Stop a batch

- 1. A currently running batch is shown in green. Click on the stop icon to stop the batch.
- 2. Click "**CONFIRM**" on the pop-up window. The batch turns grey = completed batch

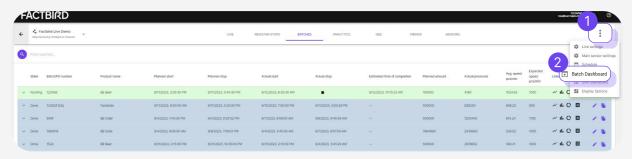


# Visualizing real time batch progress

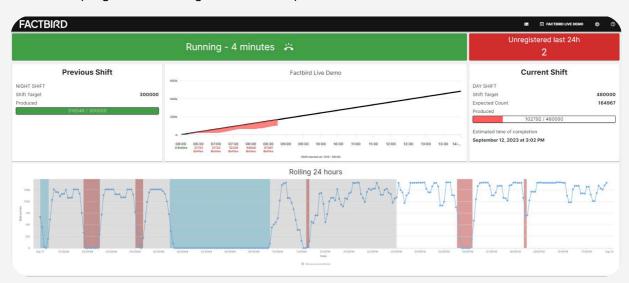
4

### Visualize real time batch progress against batch target

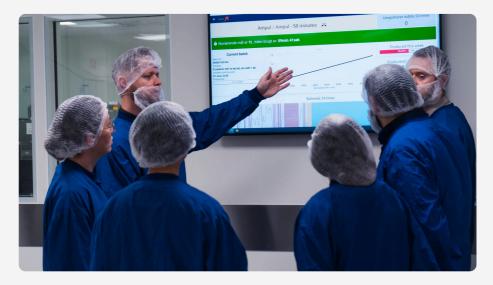
- 1. Click on the three dots on the main navigation menu.
- 2. Click on "Batch Dashboard"



When you have a running batch (in green), the "Batch Dashboard" updates to reflect the current status and progress according to the batch specifications.



### Display Dashboard on a flat screen



# Setting up productivity alarms

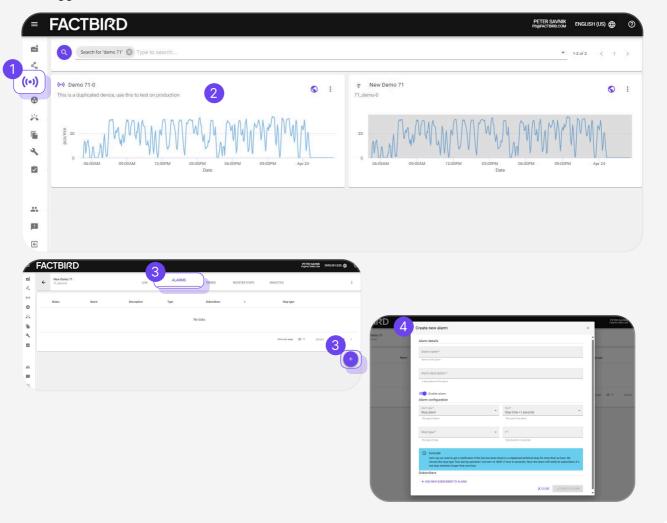
### What is Factbird productivity alarms

Setting up speed alarms in Factbid automatically sends alarm notifications via email and SMS.

- Stop alarm: Stop alarms can be set up based on the type of downtime and its duration.
- Speed alarm: Speed alarms can be set up based on the actual line speed compared to the target speed.

### **Create an alarm**

- 1. Click on "Sensors" from the menu on the left side of the view
- 2. Click on the sensor you want to set up alarms for.
- 3. Click on the "ALARMS" tab and then the "+" button to create an alarm.
- 4. Fill out the form, "ADD NEW SUBSCRIBER TO ALARM" and click "CREATE ALARM".
- 5. Created alarms are shown on the "**ALARMS**" tab, where you can edit them and see the list of triggered alarms.



# Setting up Andon

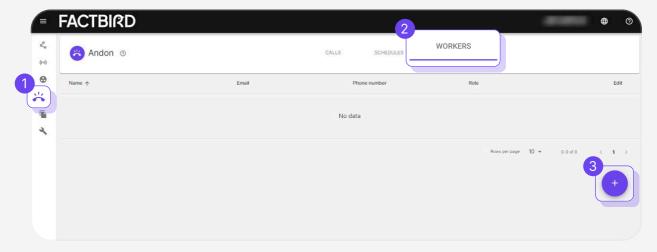
### What is a Andon?

In manufacturing terms, Andon is a system which alerts support teams (maintenance, management) of a problem. Our Andon feature is standard for every user.

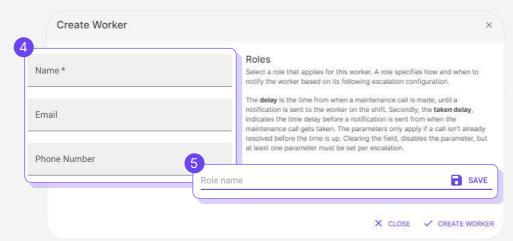
1

### **Create workers**

- 1. On the menu click on "Andon"
- Schedule: Shift schedules for contacts who receive and resolves Andon calls. e.g. John is on mechanics shift every day.
- Workers: List of contacts who receive and resolve Andon calls.
- 2. Click on the "WORKERS" tab
- 3. Click on the "+" icon to add workers

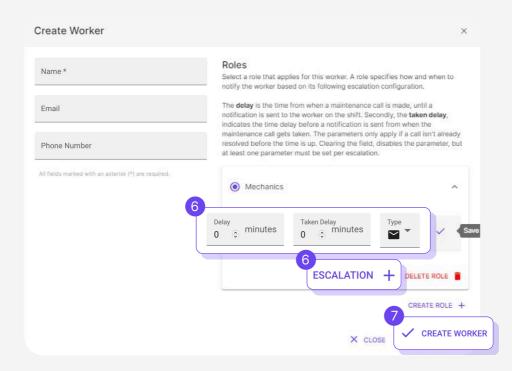


- 4. Type in name, email and phone number of a contact
- 5. Type in name for a "Roles" and click "SAVE". Click on the role.



### **Andon**

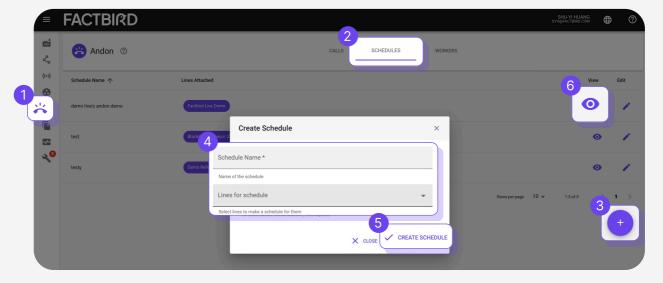
- 6. Click "ESCALATION + ", enter "Delay" and "Taken Delay" as required and "Save".
- 7. Click "CREATE WORKER"



2

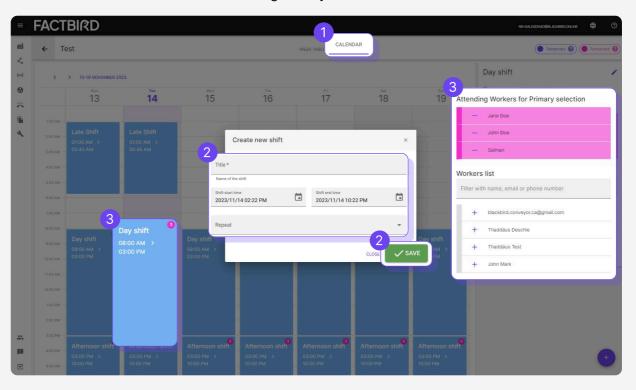
### **Create schedules**

- 1. On the menu click on "Andon"
- 2. Click on the "SCHEDULES" tab
- 3. Click on the "+" icon to create a schedule
- 4. Type in name and choose lines for the schedule
- 5. Click "CREATE SCHEDULE"
- 6. Click on the view icon to go to "CALENDAR" and "WEEK TABLE"



How to use - Andon

- 1. Click on the "CALENDAR" tab
- 2. Click on "+" to create shifts. Type in "Title" and choose times and click "SAVE".
- 3. Click on the desired shift to assign workers. E.g. John is on day shift everyday. Andon call notifications will be sent to John during his day shift.



# **Triggering Andon calls**

3

### Call for help / Trigger Andon calls

- 1. Navigate to your desired line then click the "REGISTER STOPS" tab.
- 2. Click the "**ANDON**" button to trigger an Andon call. e.g. The machine jammed and I need help from mechanics to fix.
- 3. Select "Role": which team you need help from, type in initials and comment.
- 4. Click "YELLOW CALL" or "RED CALL". YELLOW means not urgent but as soon as possible, and RED means urgent.

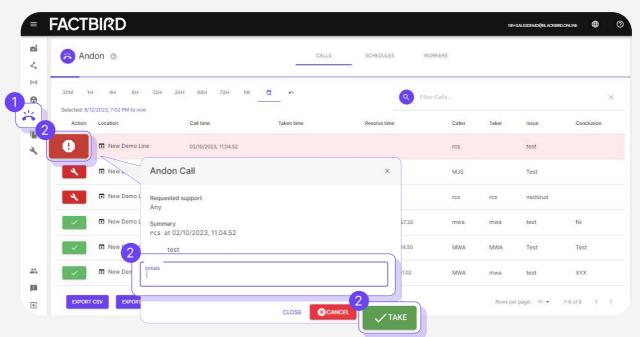


# Taking and resolving Andon calls

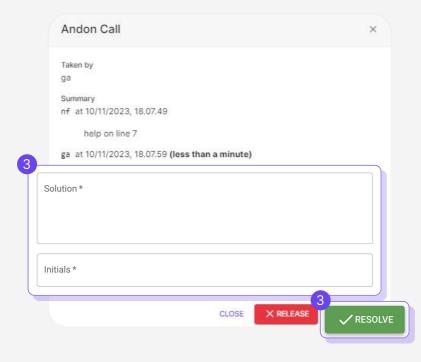
4

### Andon dashboard showing the list of Andon calls and the status

- 1. Click "Andon" in the menu to access the Andon dashboard.
- 2. Click an "Action" button from the list to take the call. Type in "Initials" and click "TAKE"



3. Click a call from the list to mark it as resolved, once resolving the issue. Type in "Solution" and "Initials" and click "RESOLVE"



# Golden batch

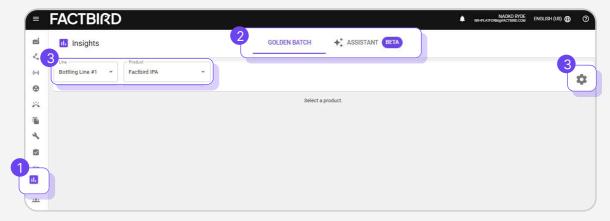
### What is Golden batch?

Factbird Golden Batch automatically calculates the best-performing batch from complex performance data. It visualizes this information to support process optimization and establish a shared understanding of asset potential across the organization.

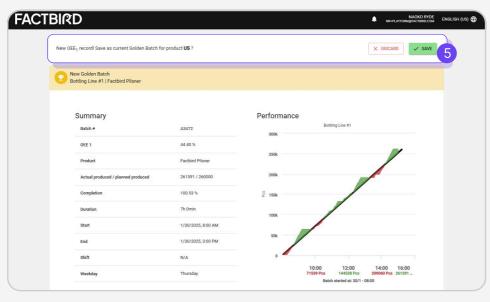
1

### Identify the golden batch

- 1. On the menu, click on "Insights".
- 2. Click on "GOLDEN BATCH" tab.
- 3. Select the "Line" and "Product" for which you want to identify the golden batch. Click the "gear" icon to set the time period that the analysis should cover.



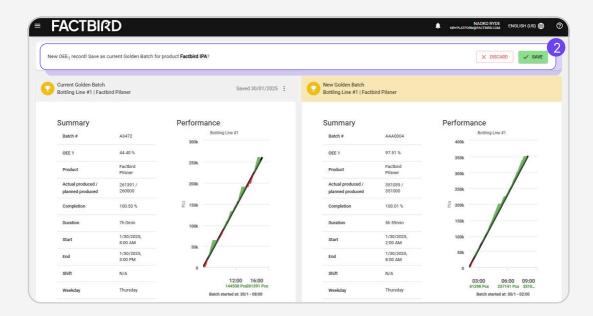
- 4. The golden batch is identified based on OEE1 and visualized.
- 5. Clicking "SAVE" registers the batch as the golden batch. Clicking "DISCARD" disqualifies the batch and removes it from the calculation.



2

### Update the golden batch

- 1. If a batch performs better than the existing golden batch you've saved, the new golden batch and the current golden batch will be displayed side by side.
- 2. Clicking "SAVE" registers the new batch as the golden batch. Clicking "DISCARD" disqualifies the new golden batch and removes it from the calculation.



## Assistant (beta)

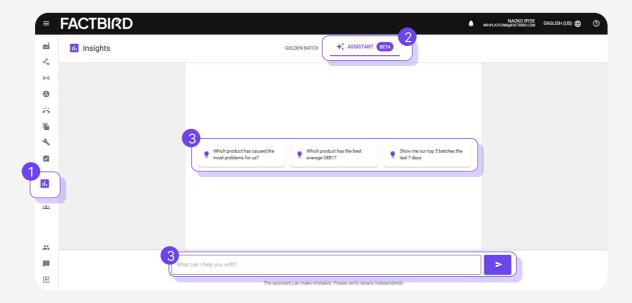
#### What is Assistant?

Using the Assistant, you can simply ask questions and receive clear and easily understandable answers from Factbird to guide your actions. The Assistant uses AI technology to interpret and analyze complex data, combining various data within Factbird to provide actionable information quickly, saving you time and effort compared to doing it yourself.

1

### **Use Assistant (Bata)**

- 1. On the menu, click on "Insights".
- 2. Click on "ASSISTANT" tab.
- 3. There are three preset questions you can click on, or you can write a question in the text field and click the arrow button.



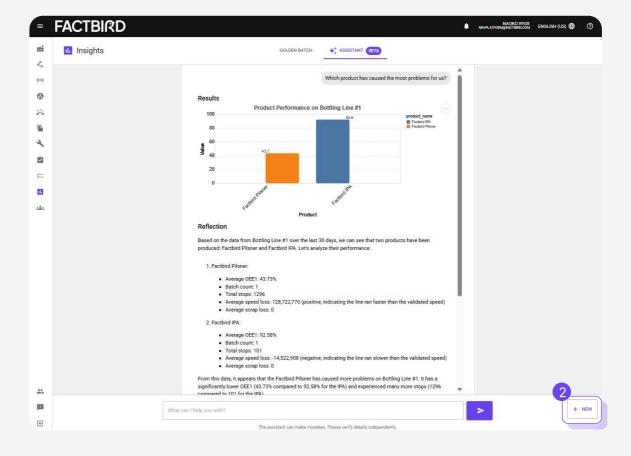
**Assistant (beta)** 

2

## **Review the information displayed by Assistant**

- 1. The Assistant analyzes the data and provides results with visualizations. It also provides recommended follow-up questions at the end to explore the analysis further.
- 2. Click on the "+NEW" button to start a new conversation.

Note: The Assistant is currently in beta and has access to the following data sources as of January 2025: Lines, Stops, OEE, Batches, and Products.



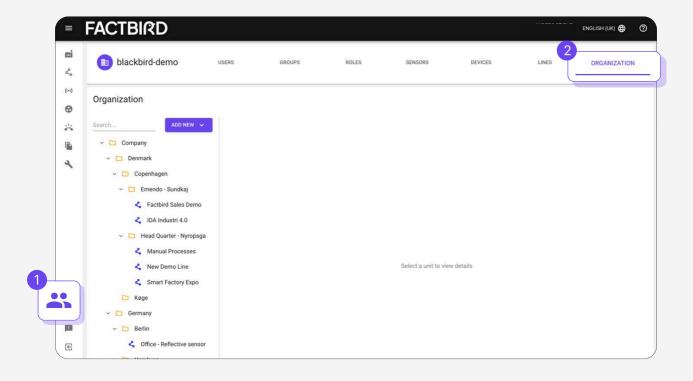
## Organization and Factory overview

#### What is Organization and Factory overview?

The Factbird Organization helps you organize sensors and lines in a tree structure, making it easy to see where each sensor or line belongs. It includes a Factory Overview dashboard, allowing you to quickly gain a comprehensive view of your manufacturing at all levels—from total regional performance to individual sites, or from division totals to individual lines and assets.

### **Set up your Organization**

- 1. Go to "Administration" page.
- 2. Go to the "ORGANIZATION" tab.

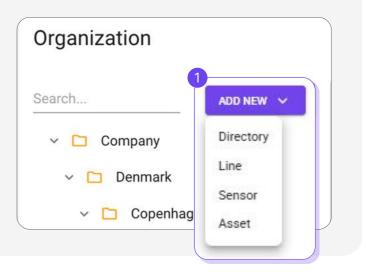


**Organization and Factory Overview** 

2

## Add a directory

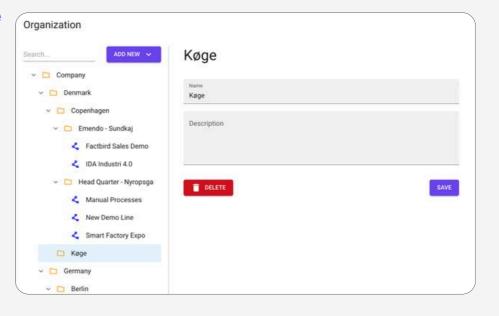
Select the location you want to add a directory to and press "ADD NEW" and "Directory". The new directory will be put into the selected directory with the name "New directory".



3

#### Rename and save

Select the new directory, rename it, and click save

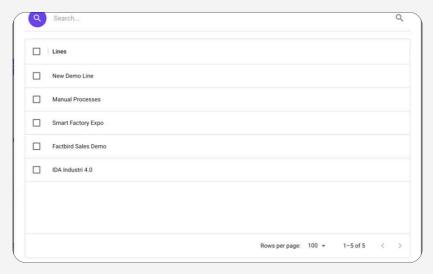


## Organization and Factory Overview

4

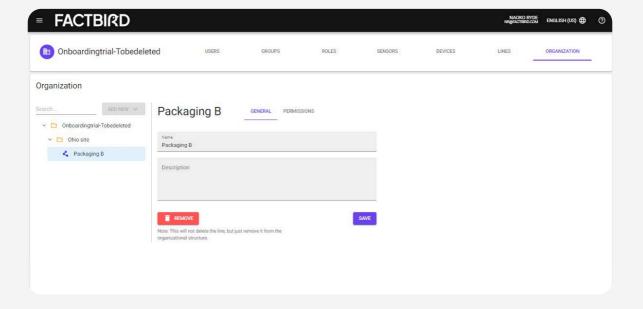
## Add line(s)

Select the directory you want to put lines into and click "**ADD NEW**" and "**Line**". This opens a dialog with all your lines. Select a line(s) and press "**ADD**".



Protip: If you have already named your lines with a prefix (e.g. DK\_FactoryA), you can search for this, select all, and add these lines in one go.

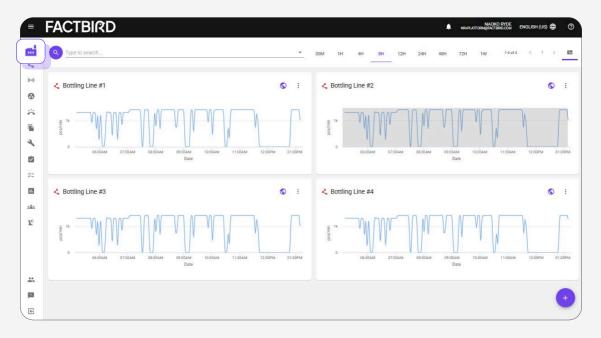
Your organizational hierarchy is shown on the left menu.



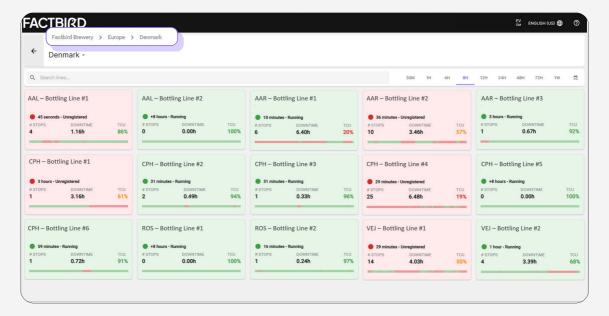
5

### **View Factory overview**

Click on "Organization" from the menu to view Factory overview dashboard.



The organization view allows for drilling down into every level of the organization. "Breadcrumbs" in the top will show the current location and can be used to navigate back and forth.



#### What is Factbird manual process line and manual production counter?

#### Manual process line

- The Factbird manual process line feature is ready-to-use web-based software where operators can easily and intuitively log downtime, part or product counts, scrap, and scrap reasons. The data is analyzed and visualized in the Factbird Cloud Application, which is accessible on any device with a browser.
- Manual process line consists of manual production counter for good count and scrap count and manual downtime logging.

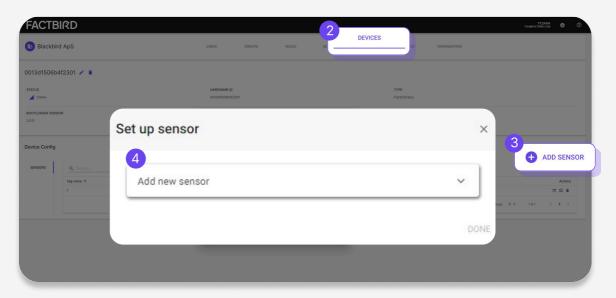
#### **Manual production counter**

• The Factbird manual production counter can be integrated as a scrap counter into production lines or equipment that have sensors for automated production counting. This scrap counter can be configured to track scrap by different types, automatically generating visualized scrap analytics. The Factbird Cloud Application allows viewing both manual and automated processes within the same standard.

1

#### **Create sensors**

- 1. Go to "Administration" page.
- 2. Go to the "DEVICES" tab.
- 3. Click on the device labeled "VIRTUAL" under the "Type" category, then click on "ADD SENSOR".
- 4. Click on "Add new sensor", complete the information, and then click "CREATE SENSOR".
- 5. It will be marked as "Created".



41

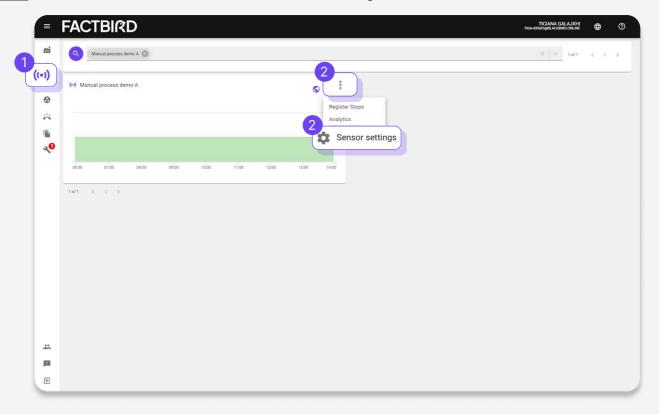
\*If you can not find a device labeled "VIRTUAL", please contact Factbird.

## **Manual Process Line / Manual Production Counter**

2

## Go to sensors settings

- 1. Click on "Sensors" from the menu on the left side of the view
- 2. Click on the three dots and select "Sensor settings"

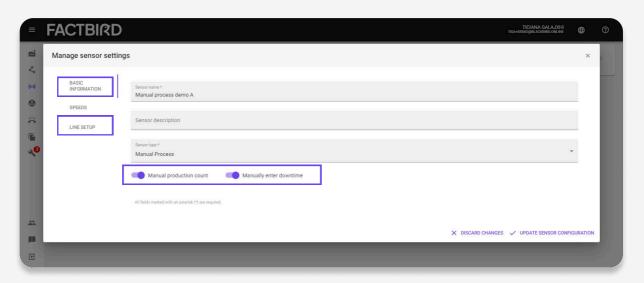


Manual Process Line / Manual Production Counter

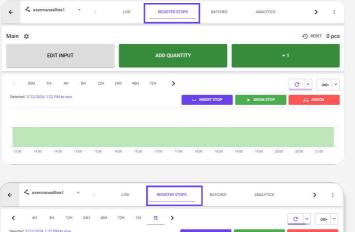
 $3_{a}$ 

## **Create Manual process line**

- 1. Toggle the "Manual production count" and "Manually enter downtime" sliders on the "BASIC INFORMATION" tab
  - a. Turning on the "**Manual production count**" slider activates the counter for good counts..
  - b. Turning on the "**Manually enter downtime**" slider enables manual logging of downtime.
- 2. Go to the "LINE SETUP" tab and click on "CREATE LINE" to create a line with the sensor by following the instruction.



3. On the "**REGISTER STOPS**" tab, you can view the main counter and manual downtime logging function.



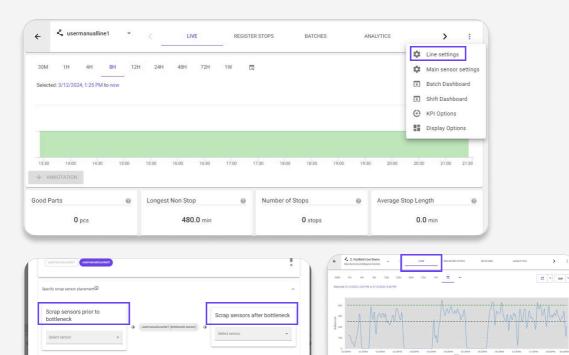
"Manual production count" slider and "Manually enter downtime" slider are on.

"Manually enter downtime" slider is on.

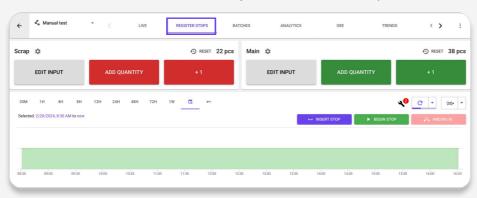
 $4_{a}$ 

## **Create Manual process line - add scrap sensors**

- 1. Repeat step 1 to create another sensor, this time for scrap. The "**Name**" you assign to the sensor will be displayed as the name of the scrap sensor. For example, if you name the sensor "shape error scrap," the button for counting will display "shape error scrap."
- 2. Go to the "Line Setting" of the line created in step 3.
- 3. Select the scrap sensor and specify its placement.
  - "Scrap sensors prior to the bottleneck" means the quantity of the scrap sensors is not subtracted from the good parts count.
  - "Scrap sensors after the bottleneck" means the quantity of the scrap sensors is subtracted from the good parts count and shown as quality loss on the OEE page.
  - The scrap sensor's value will be displayed in the KPI "Scrap" on the "LIVE" page.



4. On the "**REGISTER STOPS**" tab, you can view the scrap counter.

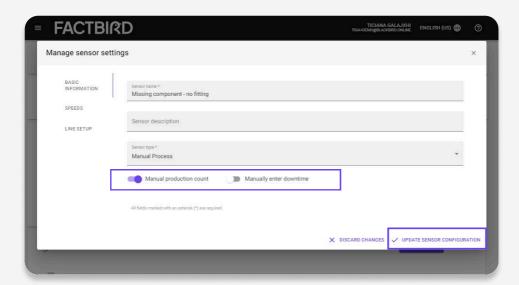


Manual Process Line / Manual Production Counter

3b

## Create a scrap sensor for an existing line

- 1. In step 1, the "**Name**" you assign to the sensor will be displayed as the name of the scrap sensor. For example, if you name the sensor "shape error scrap," the button for counting will display "shape error scrap."
- 2. Turn on the "Manual production count" slider and turn off the "Manually enter downtime" slider on the "BASIC INFORMATION" tab.
- 3. Click on "UPDATE SENSOR CONFIGURATION".





## Add a scrap sensor to an existing line

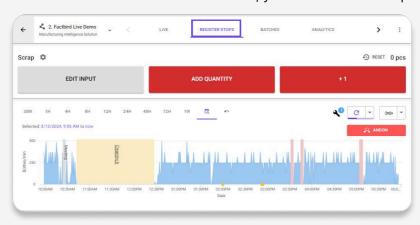
- 1. Go to the "Line Settings" of the line you want to add the scrap sensor to.
- 2. Select the scrap sensor and specify its placement.
  - a. "Scrap sensors before the bottleneck" means the quantity of scrap sensors is not subtracted from the good parts count.
  - b. "**Scrap sensors after the bottleneck**" means the quantity of scrap sensors is subtracted from the good parts count and shown as quality loss on the OEE page.
  - c. The scrap sensor's value will be displayed in the KPI "Scrap" on the "LIVE" page.





KPI "Scrap" on "LIVE" page.

3. On the "**REGISTER STOPS**" tab, you can view the scrap counter.



5

#### **Use manual production counter**

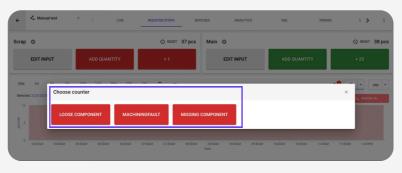
- 1. With a manual production counter you can count good parts and scraps manually.
  - a. Good parts counters: The green counter represents the "bottleneck sensor" shown as "**Main**", counting the number of produced parts on the line. This is only on manual process line.
  - b. **Scrap** counters: If an additional virtual sensor is added as a "**scrap sensor**" in the "**Line settings**", it will be displayed as a scrap counter. Multiple scrap sensors can be added on a line, providing multiple options for different types of scraps. When the counting button is pressed, the operator will be prompted to choose from the available reasons.
- 2. Press the "ADD QUANTITY" or "+1" button to record counts.
  - a. When you add a count, it may take up to 30 seconds before it becomes visible in other areas of the system, such as the "LIVE" page or the "BATCHES" page. However, the local value next to "RESET" icon will immediately display the changing value on the screen. This feature helps operators track their production, such as the amount produced since the beginning of a shift or batch.



A good parts counter and scrap counter on a manual process line.



Scrap counter on an existing line.

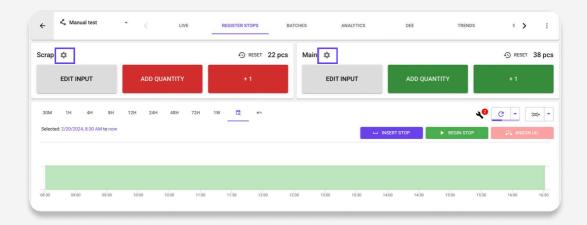


Choosing scrap reasons



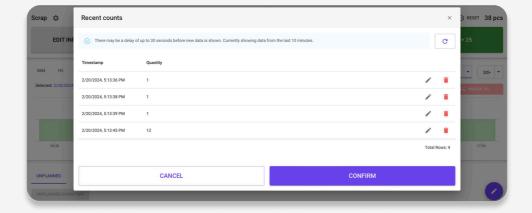
## **Use manual production counter - set primary quantity**

The primary counting quantity "+1" button can be adjusted by clicking the gear icon.



## **Use manual production counter - edit inputs**

Press the "**EDIT INPUT**" button to view previously submitted counts. In the dialog, you can make changes or delete counts. Please note that it may take up to 30 seconds for new data to appear.



7

#### Use manual downtime logging - This is only for manual process line

On **Sensor setting**, turning on the "**Manually enter downtime**" slider enables manual downtime logging.

There are two ways to log downtime on a Manual process line.

- 1. "BEGIN STOP" button: You can either use the "BEGIN STOP" button to indicate that the process has stopped. Afterwards, you will be prompted to choose a stop cause from the available options. The line will be marked as stopped, and the button will change to an "END STOP" button. When the process is running again, click the "END STOP" button to end the stop.
- 2. "INSERT STOP" button: If you want to insert a stop that happened in the past, you can use the "INSERT STOP" button. When you click it, you'll be shown a dialog where you can select a stop cause and enter the "Start" and "End' times of the stop. If the stop is still ongoing, you can toggle the checkbox "Ongoing".

