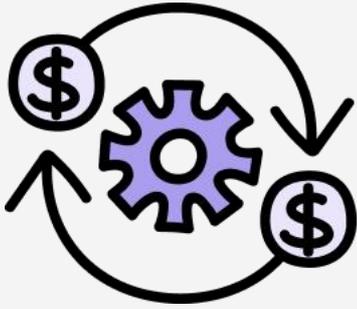


FACTBIRD

USER GUIDE | Connected Operations



USER GUIDE

Connected Operations

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Digital guidance

What is Digital guidance?

Factbird Digital guidance standardizes and digitizes shop floor activities. Using the Digital form builder, you can create SOPs, guides, checklists, and forms in just a few clicks, making them available for frontline operations. For example, this includes quality checks, batch changeover checklists, and step-by-step troubleshooting guides. Various shop floor activities that typically required spreadsheets and paper can be carried out digitally and seamlessly.

Accessing Digital guidance

1

Access Digital Guidance on Activities

1. On the menu, click on **"Activities"**.
2. There are two tabs.
 - a. **"ACTIVITIES"**: Various activities, form and documentation can be created and digitized.
 - b. **"REPORTING"**: The execution results of various activities can be viewed and analyzed.

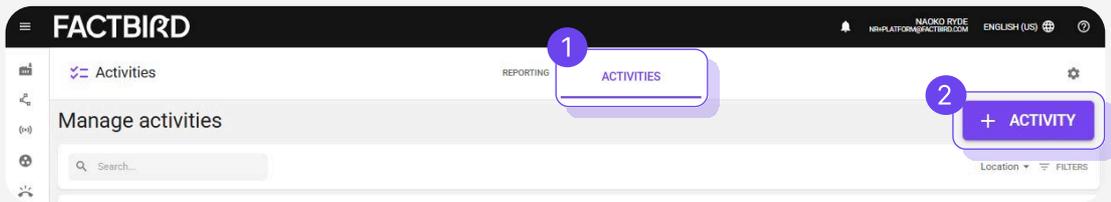
Title	Description	Location
Labeler - Setup of Machine	Set up labeler to apply new labels correctly and verify alignment.	Botting Line #1 Botting Line #2
Shift Handover Checklist	A structured guide for ensuring a smooth transition between shifts, covering mac...	Botting Line #1 Botting Line #2
In Process Control - Taste Test	Ensure the liquid is within the specification	Botting Line #1 Botting Line #2
Product Specification Control	Ensuring correct product specification during palletizing	Botting Line #1 Botting Line #2
Batch Changeover Checklist	A step-by-step guide to ensure a smooth transition between product batches, cov...	Botting Line #1 Botting Line #2
Labeler - Label Test	A quality check to ensure that labels display correct information.	Botting Line #1 Botting Line #2

Digital form builder

1

Access Digital form builder

1. Click on "**ACTIVITIES**" tab.
2. Click on "**+ ACTIVITY**" to create a new activity. e.g., quality check forms, guides, SOP, etc.

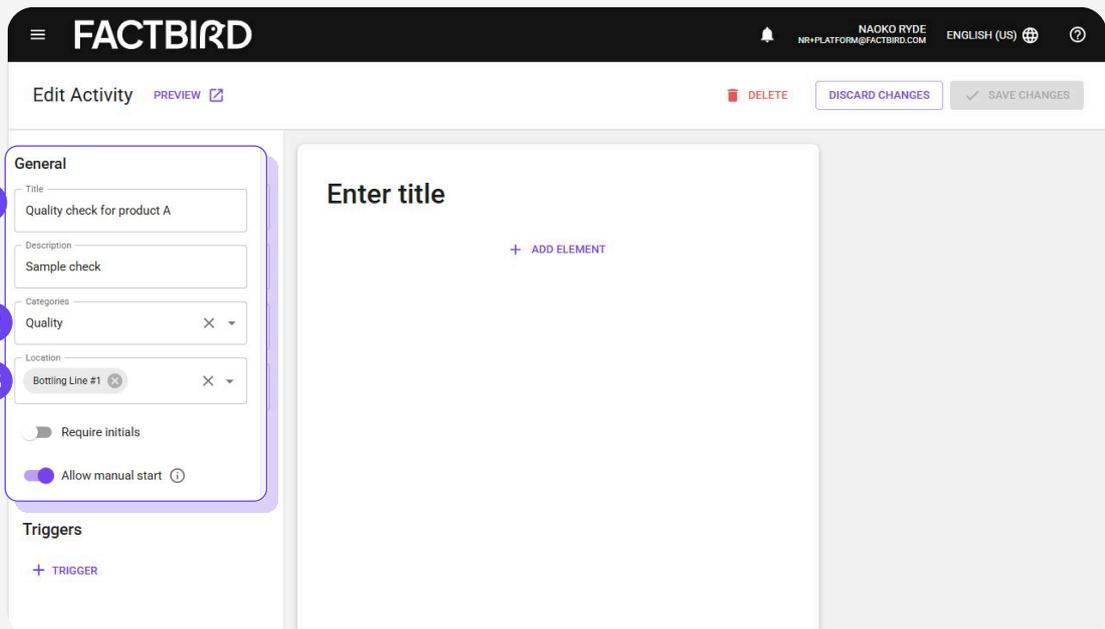


2

Create an activity

Fill out "**General**" section.

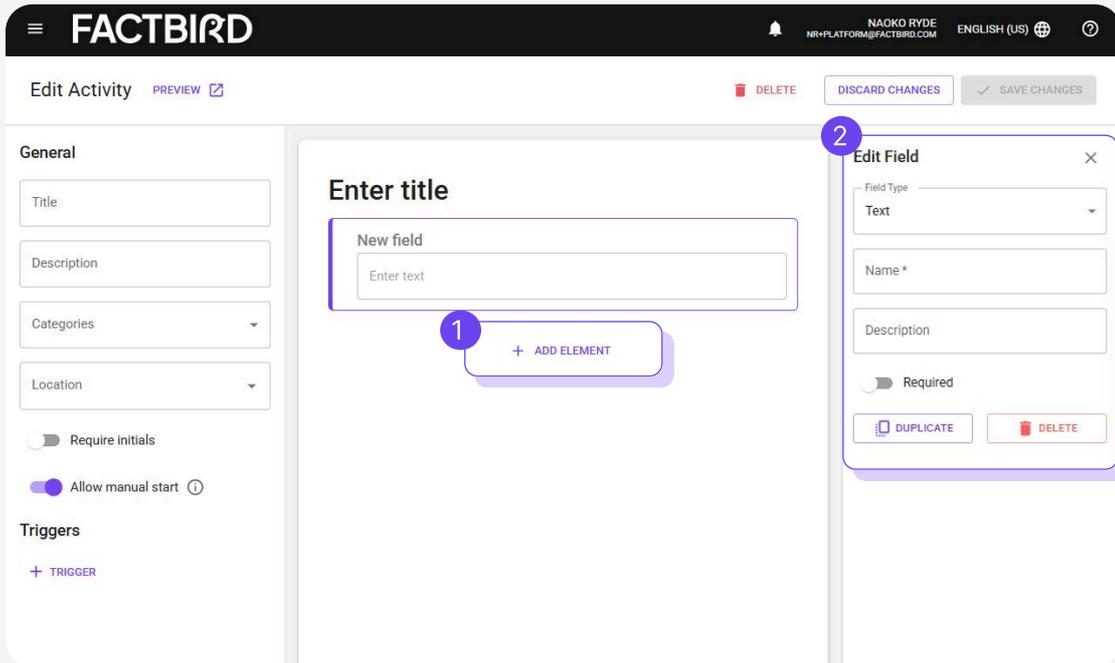
1. Fill in "**Title**" and "**Description**".
2. **Categories**: A new category can be created by clicking "**Manage categories**". Choose a category from the drop-down menu where you want the activity to be included.
3. **Locations**: Select the locations where the activity applies. You can select multiple locations.



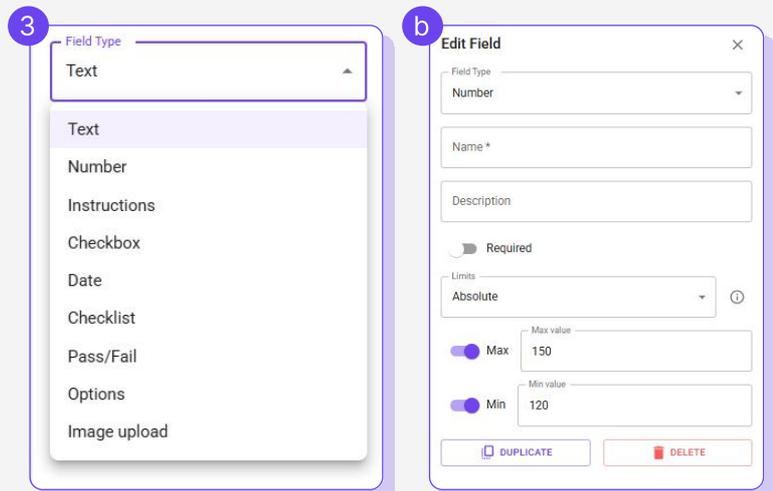
3

Add elements and customize

1. Click on “+ **ADD ELEMENT**”.
2. Customize the new element using “**Edit Field**” on the right.



3. Choose a “**Field Type**” from the drop-down menu. This determines how the field will function during execution.
 - a. **Text**: Allows text to be entered.
 - b. **Number**: Allows numbers to be entered. When “**Number**” is selected, you can set “**Limits**” to specify acceptable ranges. For example, numbers outside the limits will be marked as “Failed” in “**REPORTING**,” while those within the limits will be marked as “Passed.”
 - c. **Instruction**: An editable field that can include text instructions along with links, videos, images, and more.



USER GUIDE

Digital Guidance and Quality

4

Set up Triggers

Set up and automate activity triggers.

e.g., The activity can be automatically prompted to operators every 60 minutes during running batches of a specific product.

1. Click on “+TRIGGER.”
2. Configure the trigger for the activity on the “New Trigger” pop-up page and click “SAVE”
3. Turning on “Allow manual start” allows manually trigger the activity on “REGSITER STOPS” page.
4. Click on “PREVIEW” to see how the activity will look when triggered and click “SAVE CHANGES”.

New Trigger pop-up page:

The trigger can be based on duration, actual production cycles, events (such as every shift start), calendar-based fixed times, or stop causes.

USER GUIDE

Digital Guidance and Quality

Examples of SOPs, guides, checklists and forms

- **Forms:** An in-line quality check form can be created with an input field for sample weight, triggered every 30 minutes during the batch of a specific product, and categorized as pass or fail based on the weight threshold.

In-line Quality check

Weight (gram) *
Weight of samples, use a digital scale

125

Visual check
Check samples visually if it is within specification

Shape - use the shape sample board

Color - use the color scale

DISCARD SUBMIT

- **Checklist:** A shift handover checklist can be created with a list of items to be checked and triggered to appear every time a shift ends.

Shift Handover Checklist

Date
February 27, 2025 at 2:24 PM

Key event
Machine x down for 30 minutes, required unplanned maintenance.

Handover information
Check ongoing maintenance issue. Line 2 is understaff, require additional attention.

Filled out by:
John D

New field

Safety inspection

Calibrate equipment

Document process adjustment

DISCARD SUBMIT

- **SOP:** The Cleaning and Sanitizing SOP can be digitized with detailed descriptions and triggered at the start of each shift.

SOP - Cleaning and sanitizing floor 1

CLEANING AND SANITIZING

Standard Operation Procedure (SOP)

Policy:
Equipment is washed, rinsed, and sanitized after each use to ensure the safety of food served to customers. **Employee's responsibility:**

After each use, wash and sanitize equipment removable parts. **Manager's responsibilities:**

1. Conduct a visual inspection of all equipment to be certain that it is being cleaned properly.
2. Monitor concentration levels of sanitation agents.
3. Follow-up as necessary. The cleanup process must be completed in accordance with the following procedures:

- **PRE-CLEANING:** Equipment and utensils shall be pre-flushed, presoaked, or scraped as necessary to eliminate excessive food debris.
- **WASHING:** Equipment and utensils shall be effectively washed to remove or completely loosen soils using manual or mechanical means. Only approved chemicals are to be used in this process.
- **RINSING:** Washed utensils and equipment shall be rinsed to remove abrasives and to remove or dilute cleaning chemicals with water.
- **SANITIZING:** After being washed and rinsed, equipment and utensils must be sanitized with an approved chemical by immersion, manual swabbing, brushing, or pressure spraying methods. Exposure time is important to ensure the effectiveness of the chemical.

- Allow all parts of the equipment to air dry.
- After being rinsed and sanitized, equipment and utensils should not be rinsed before air-drying

- **Guide:** The filler machine settings instruction can be created with step-by-step guides and triggered to appear every time the production line stops and downtime is registered as "filler error".

Filler - Machine Settings Instruction

Setting Up the Filling Machine for the Correct Volume

1. **Check Product Specifications**
 - Confirm the required fill volume for the current product batch.
 - Ensure you have the correct settings chart or digital reference for the machine.
2. **Access Machine Settings**
 - Log in to the machine's control panel (if required).
 - Navigate to the "Filling Parameters" or equivalent menu.
3. **Adjust Fill Volume**
 - Input the target volume in milliliters (ml) or ounces, as specified.
 - Verify the settings match the product and bottle type being used.
4. **Set Carbonation Pressure (if applicable)**
 - Adjust the carbonation pressure setting based on the product's specifications.
5. **Confirm Line Speed**
 - Ensure the line speed matches the production schedule and machine capacity.
6. **Run a Test Cycle**
 - Perform a test fill with empty bottles to verify the volume.
 - Use a calibrated measuring tool to check the test bottle's fill level.

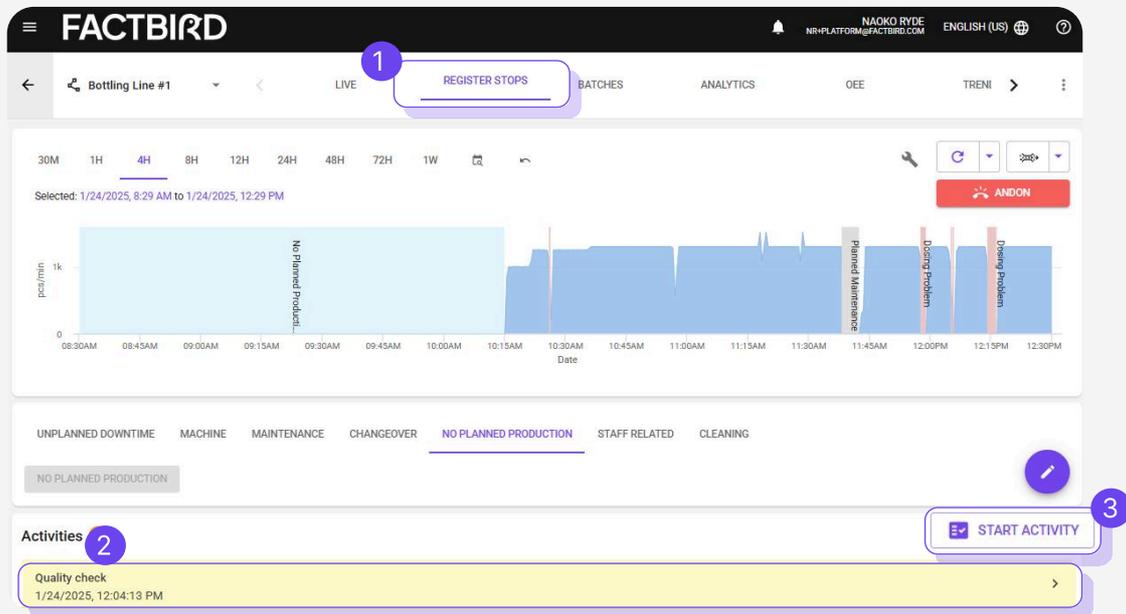
Executing activities

1

View triggered activities

Once activities are created using the Digital form builder, they will be triggered and displayed on the “**REGISTER STOPS**” page.

1. Go to the “**REGISTER STOPS**” tab.
2. Triggered activities are displayed under the chart.
3. If “**Allow manual start**” is enabled in the Digital form builder, the “**START ACTIVITY**” button allows you to manually trigger an activity to be executed.



2

Execute activities

1. Clicking a triggered activity opens the pop-up page.
2. View the page and log data if there are fields to be filled in.
3. Clicking “**SUBMIT**” button saves the data, which can then be viewed as a historical record on the “**REPORTING**” page under “**Activities**”.

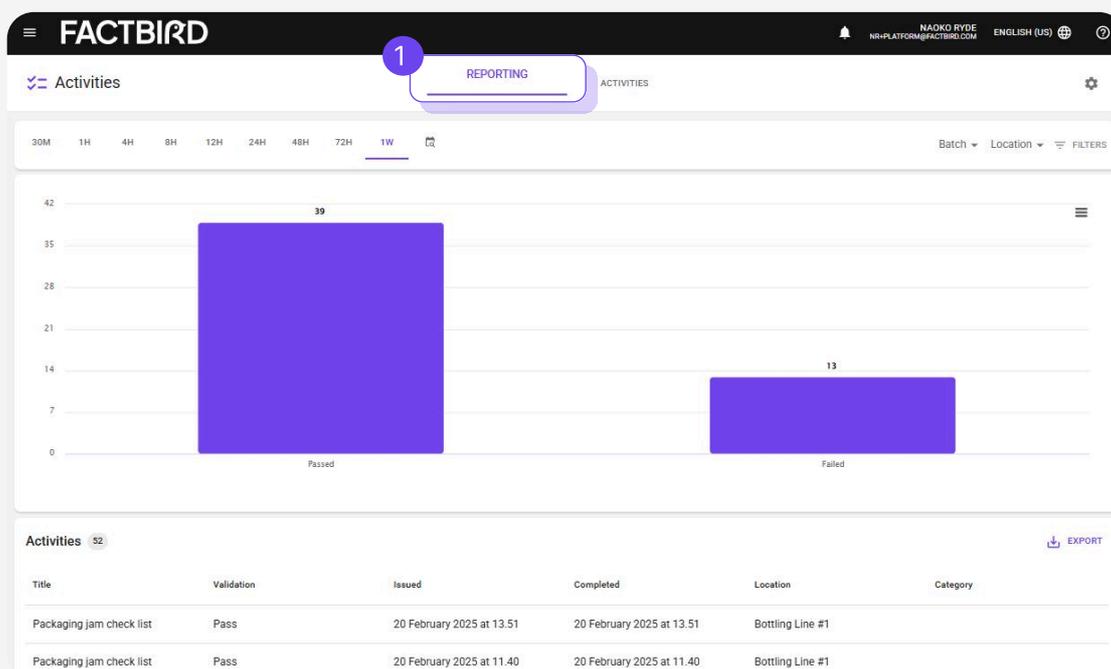
The screenshot shows a 'Quality check' pop-up form. The form has a white background and a dark border. It contains the following fields and options: 'Weight (gram) *' with a sub-label 'Weight of samples, use a digital scale' and an 'Enter number' input field; 'Visual check' with a sub-label 'Check samples visually if it is within specification' and two checkboxes: 'Shape - use the shape sample board' and 'Color - use the color scale'; and 'Pass or fail' with 'FAIL' and 'PASS' buttons. At the bottom, there are 'DISCARD' and 'SUBMIT' buttons. A blue circle with the number '2' is placed over the 'Quality check' title, and a blue circle with the number '3' is placed over the 'SUBMIT' button.

Viewing execution insights

1

View execution insights

1. Click on the "REPORTING" tab to view executed activities in the chart and list.



Preventive Maintenance

What is Preventive Maintenance?

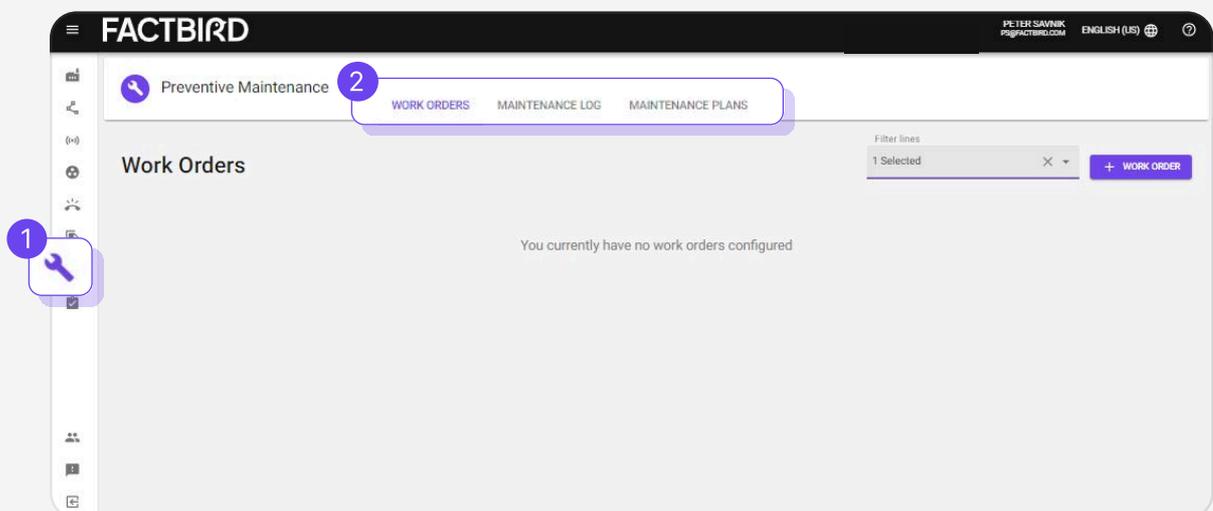
The Factbird Preventive Maintenance enables dynamic planning and scheduling of recurring maintenance tasks based on production data and calendar time. Setup does not require complex PLC data integration with CMMS or daily manual entry of cycle counts into the system; it utilizes your existing Factbird data.

Accessing Preventive Maintenance

1

Access the Preventive Maintenance

1. On the menu, click on **"Preventive Maintenance"**.
2. There are three tabs.
 - a. **"MAINTENANCE PLANS"**: You can create your maintenance plans, which will automatically generate work orders based on your specifications. This is for those who plan the maintenance schedule and view how all work orders are executed for each plan.
 - b. **"WORK ORDERS"**: You can see the list of work orders that have been automatically created based on defined maintenance plans. This is for those who perform maintenance work orders.
 - c. **"MAINTENANCE LOGS"**: You can see the list of completed maintenance logs, as well as log spontaneous maintenance activities. You can also add relevant information to each work order, e.g., associating it with assets or stop causes.

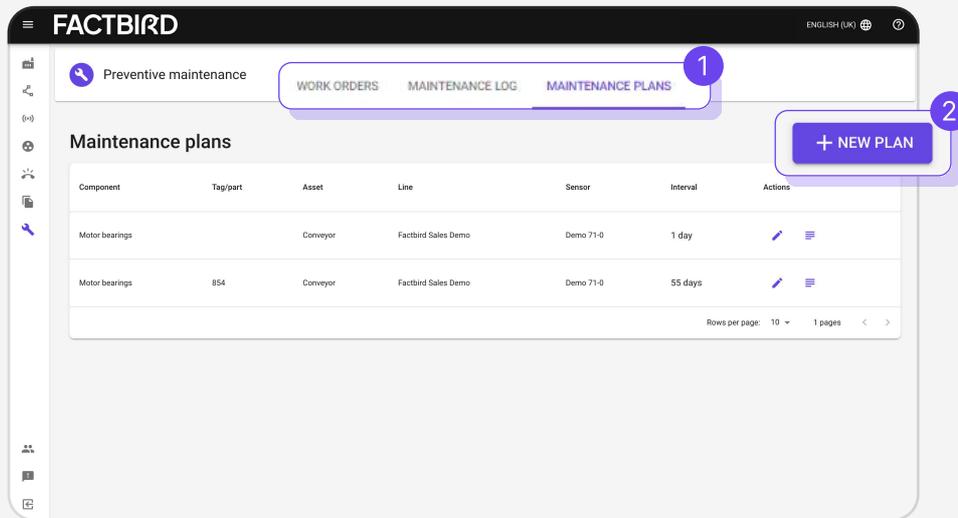


Maintenance plans

1

Create a maintenance plan

1. Click on **"MAINTENANCE PLANS"** tab.
2. Click on **"+ NEW PLAN"** to create a maintenance plan.



2

Fill out the details of the maintenance plan

General section

1. Type in **"Title"** and **"Asset"**, and select a line from **"Line"** drop down menu.
 - To trigger work orders based on production cycles, please select a line whose main sensor counts production output.
2. Select **"Role"** (**"Operator"** or **"Technician"**) to perform the work order.
 - The work orders created based on the maintenance plan for **"Operator"** appear on the **"REGISTER STOPS"** page, while work orders for **"Technician"** do not.
3. Type in **"Tag/part number"** and instructions in text format or include a link in **"Instructions"** field.

USER GUIDE

Preventive Maintenance

Trigger section

Choose whether the work order should be triggered by cycles, calendar time, or elapsed time, and then fill out the corresponding fields.

“Cycles”:

Work orders are issued based on production cycles specified in the **“Target”** field. e.g., A work order will be issued every 50,000 units produced (with 50,000 entered in the **“Target”** field)

- The grace period can be added by entering a number in the **“Overdue”** field. e.g., Entering 500 in **“Overdue”** means that once the cycle is reached, the work order will be issued but will not be marked as overdue until 500 additional units are produced.

“Calendar”:

Work orders are issued based on calendar intervals, such as daily, weekly, monthly, or yearly.

“Elapsed time”:

Work orders are issued based on the time elapsed since the last maintenance was performed.

- The grace period can be added by entering a number in **“Days”** and **“Hours”** in the **“Grace period”** field. e.g., Entering 2 days means that the issued work order will not be marked as overdue until 2 additional days have passed.
- If you choose **“Elapsed time”**, the **“Active on”** option will appear, allowing you to select or deselect days. Deselecting days will exclude them from the elapsed time calculation.

The screenshot shows a 'New plan' form with the following fields and sections:

- General**
 - Title * (The title of the work order)
 - Asset (E.g. the machine where the task is to be performed)
 - Line * (Coffee Machine) (The line where the task is to be performed)
 - Tag/part number (The tag/part number where the task is to be performed)
 - Role * (Operator) (Operator* work orders appear on the stop registration page)
 - Instructions (Add instructions for the job. You can also link to an external document)
- Trigger**
 - Define the trigger that issues the work order
 - Cycles
 - Calendar
 - Elapsed time
 - A work order will be issued when the specified cycle target is met. Once the work order is completed, the counter will be reset.
 - Sensor * (The sensor which counts the production numbers that will be used to determine maintenance schedule)
 - Starts on * (August 14, 2024 at 9:35 AM)
 - Target * ()
 - Define the grace period.
 - Overdue units * () after the target is met

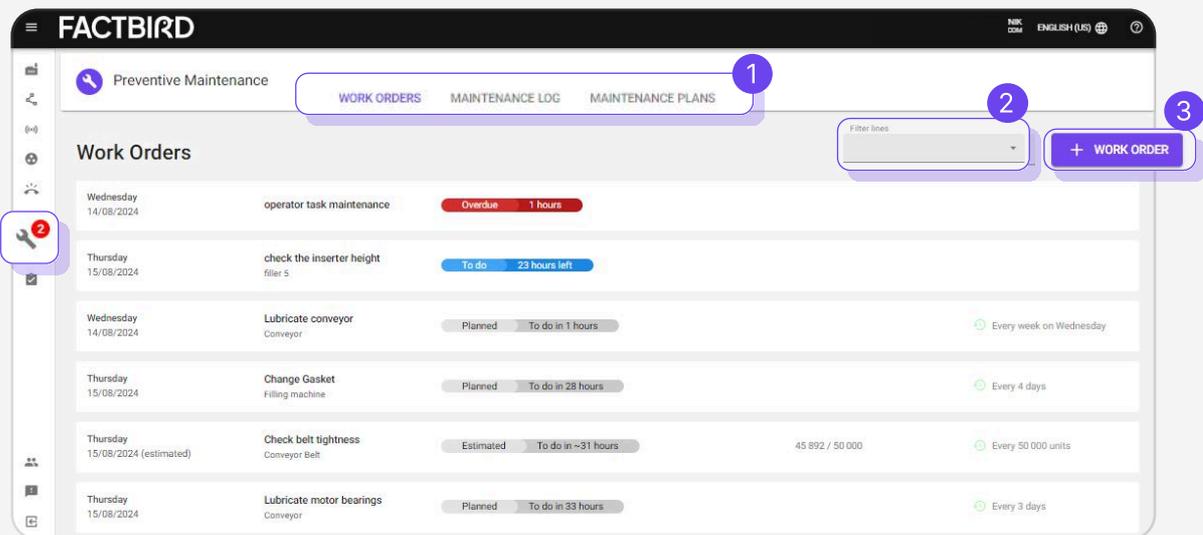
Click **“CREATE”**, and the maintenance plan will appear in the list.

Work orders

1

View work orders

1. Click on the “**WORK ORDERS**” tab. The work orders issued based on the maintenance plans will appear in the list.
2. By filtering, you can view the work orders for specific lines.



Planned

To-do in 6 days

- **Planned** work orders are displayed in grey, showing the number of days remaining until they need to be performed. If the maintenance plan is based on cycles, this date will be estimated based on historical production count data and shown as "**Estimated**".

To-do 3 days left

- **To-do** work orders are displayed in blue, indicating that the work order has reached its due and showing the remaining grace period.

Overdue 2 hours

- **Overdue** work orders are displayed in red, indicating that the grace period has ended and showing how long it has been since it ended.

One-time maintenance work orders

3. Apart from recurring maintenance work orders issued automatically based on maintenance plans, you can create one-time maintenance work orders by clicking "**+ WORK ORDER**".

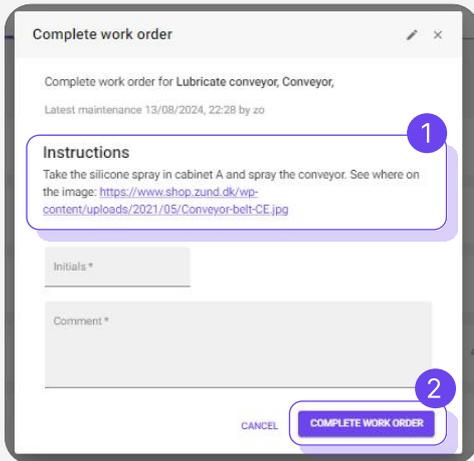
USER GUIDE

Preventive Maintenance

2

Perform and complete work orders

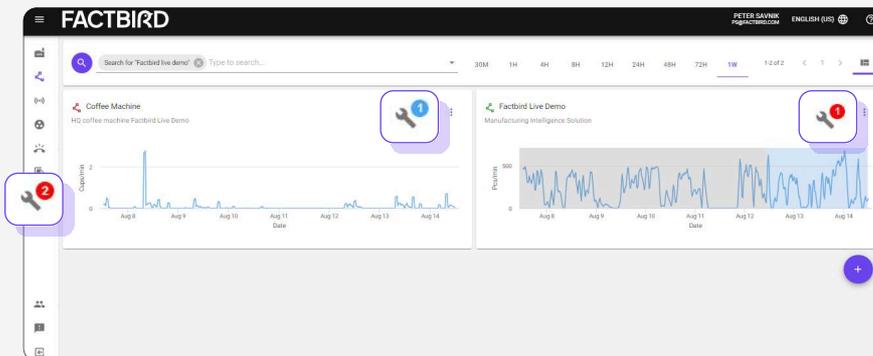
1. Click on one of the work orders to view the instructions on how to perform the maintenance if the maintenance plans include them.
2. Once the work order is completed, fill out the "Initials" and "Comment" fields, then click "COMPLETE WORK ORDER". The work order will then move to the "MAINTENANCE LOGS" tab.



3

Prompt technicians and operators to perform the required work orders

Work orders that are due or overdue will be shown with a wrench icon.



The above shows that there is 1 work order in To-do status and 1 work order in Overdue status, for a total of 2 work orders that need to be performed.

Work orders for operators appear on the "REGISTER STOPS" page.

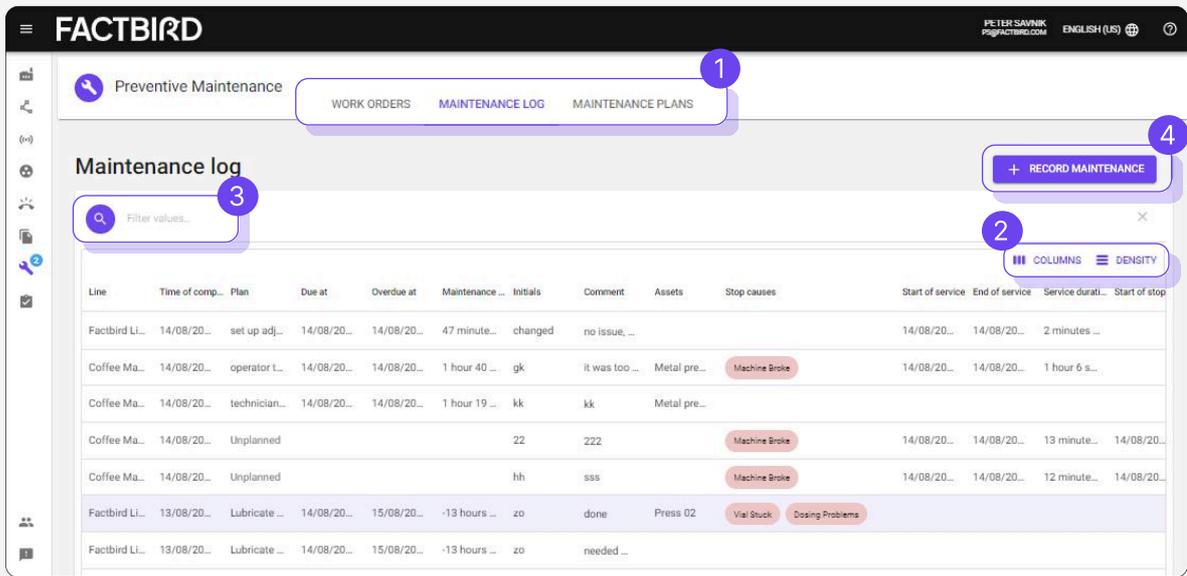


Maintenance log

1

View maintenance log

1. Click on the "**MAINTENANCE LOG**" tab to view the work orders that have been completed.
2. By using "**COLUMNS**" and "**DENSITY**," you can adjust the list view.
3. Selecting a line or lines in "**Filter**" will display the work orders for those lines.



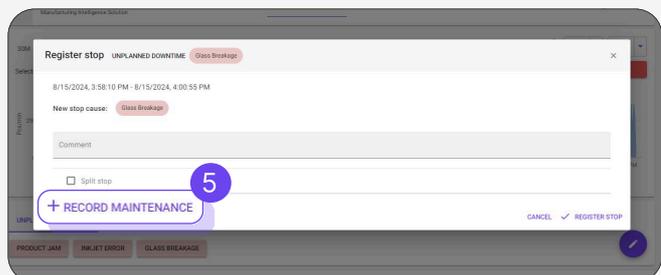
Unplanned maintenance tasks

Create and log spontaneous maintenance tasks

4. Spontaneous work orders (e.g., reactive maintenance work orders) can be created and logged by clicking "**+ RECORD MAINTENANCE**", while preventive maintenance work orders are issued automatically based on the maintenance plans.

Create and log spontaneous maintenance tasks when registering stop causes

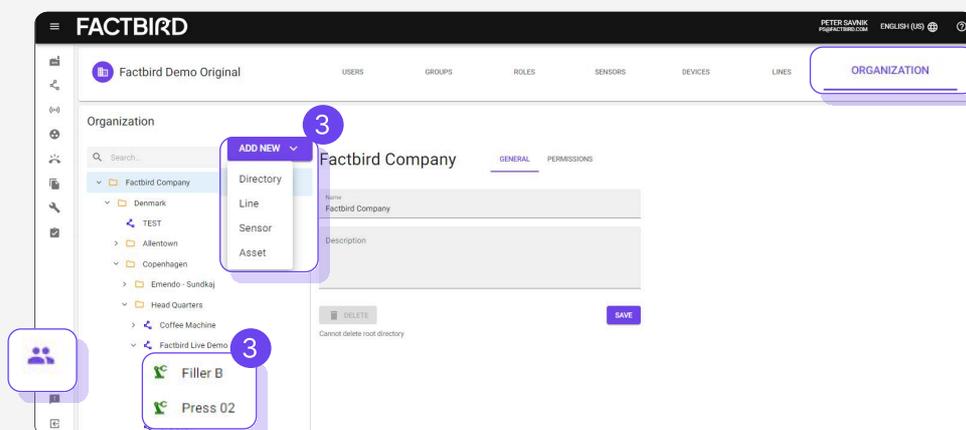
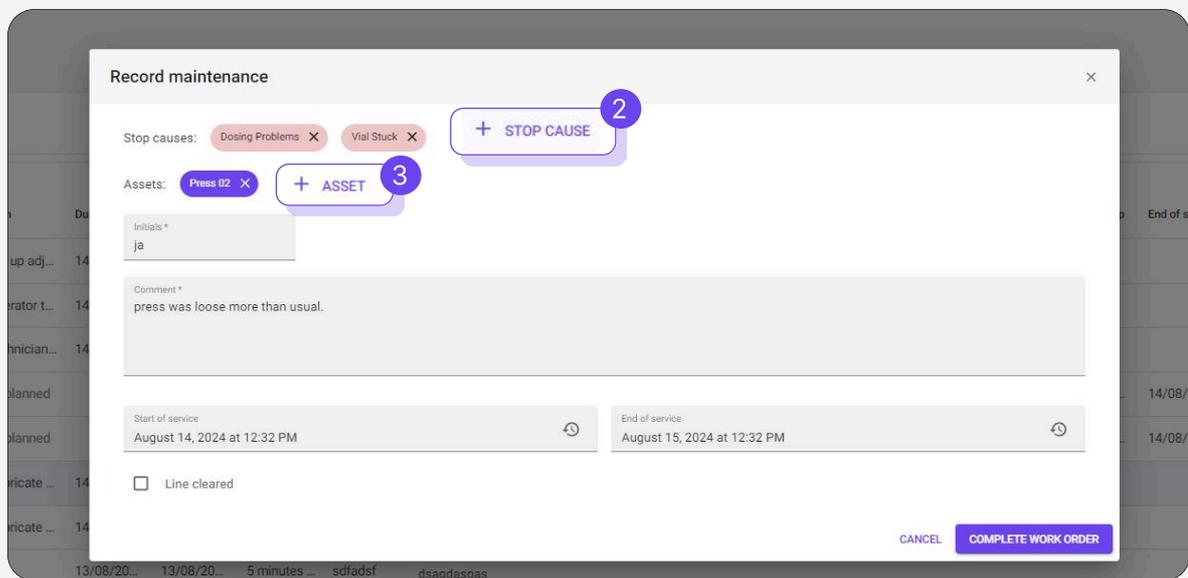
5. When you register a stop cause, you can simultaneously log a maintenance task required for the stop. Clicking "**+ RECORD MAINTENANCE**" on the "Register Stop" screen allows you to record the maintenance task, which will then be logged in the "**MAINTENANCE LOG**".



2

Record the details in the maintenance log, e.g., assets and stop causes

1. Click on a work order in the list to record the details.
2. Click "+ STOP CAUSE" to associate the work order with stop causes.
 - Stop causes need to be created in advance to be displayed.
3. Click "+ ASSET" to associate the work order with assets.
 - Assets need to be created in advance on the "**Organization**" page to be displayed



Assets can be created on the "**ORGANIZATION**" page.

Maintenance history by plans

1

View maintenance history by plan

1. Click on **“MAINTENANCE PLANS”** tab.
2. Click on the right-most icon to view the maintenance history by plan.

