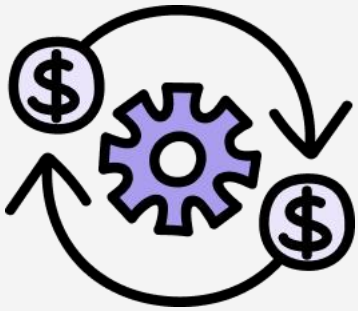
FACTBIRD

USER GUIDE | Connected Operations



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Digital guidance

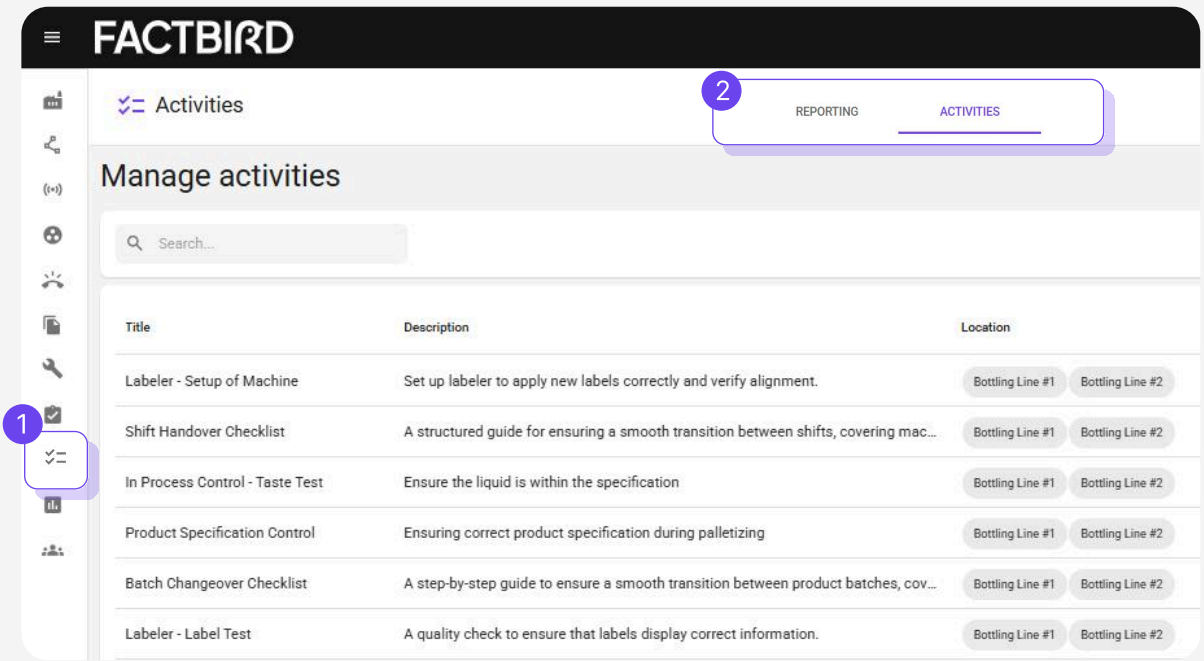
What is Digital guidance?

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

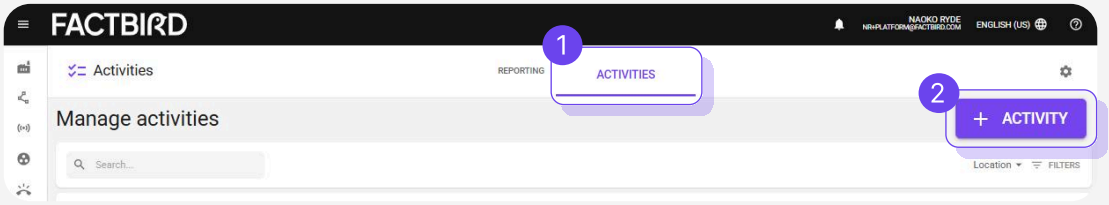
1. On the menu, click on **'"Activities".**
2. There are two tabs.
   a. "ACTIVITIES": Various activities, form and documentation can be created and digitized.
   b. "REPORTING": The execution results of various activities can be viewed and analyzed.



Digital form builder

1 Access Digital form builder

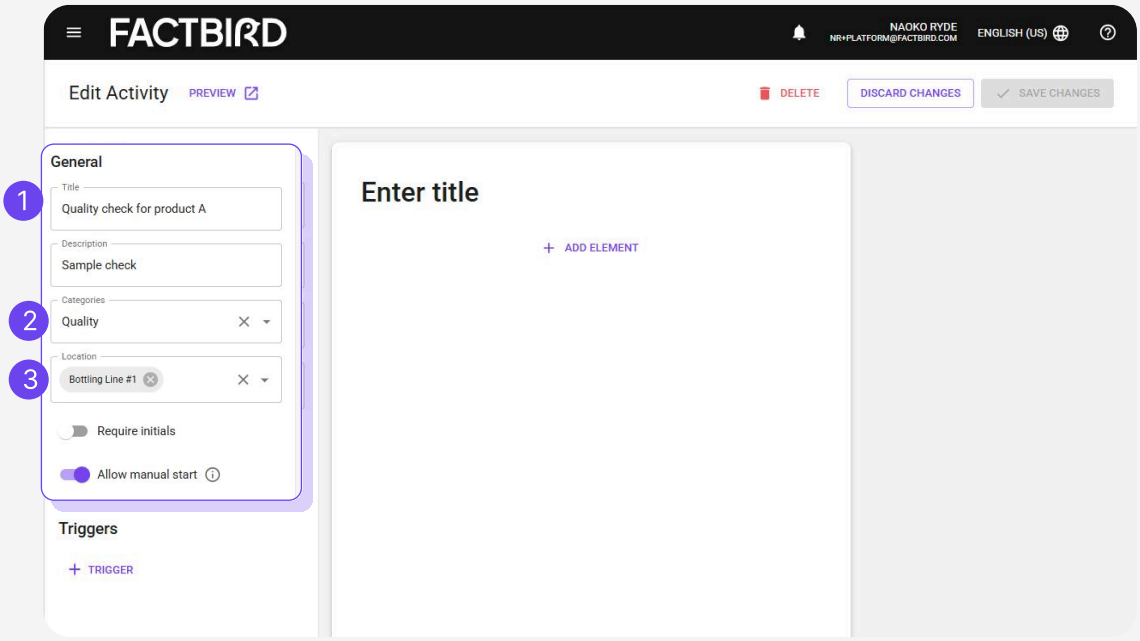
1. Click on “**ACTIVITIES**” tab.
2. Click on **"+ ACTIVITY"** to create a new activity. e.g., quality check forms, guides, SOP, etc.



2 Create an activity

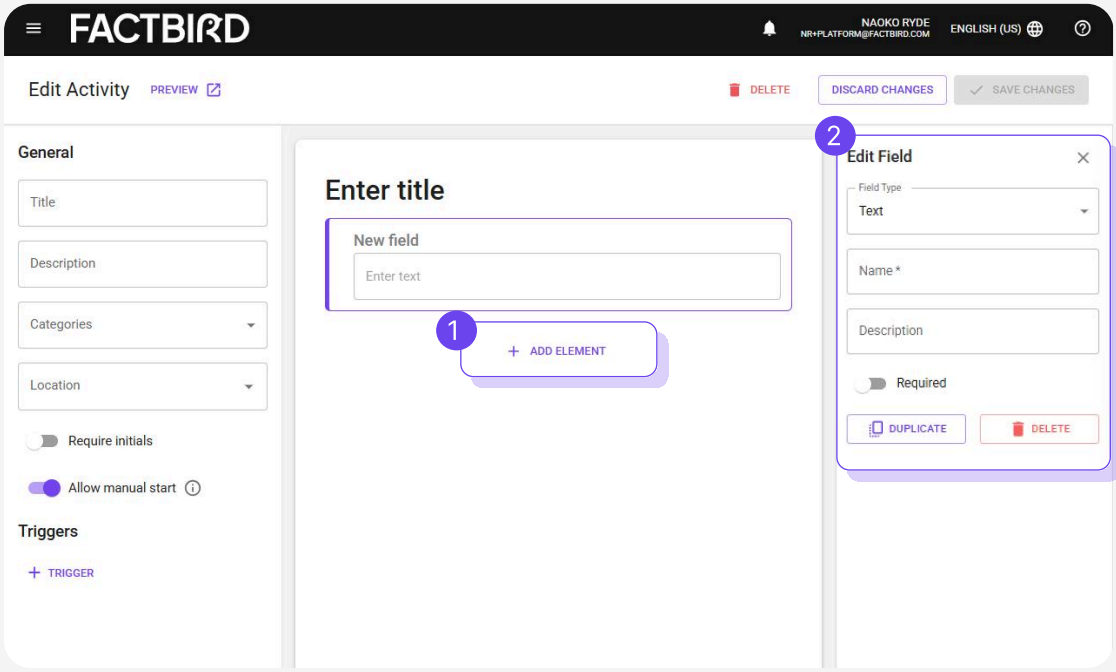
Fill out “**General**” section.

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.

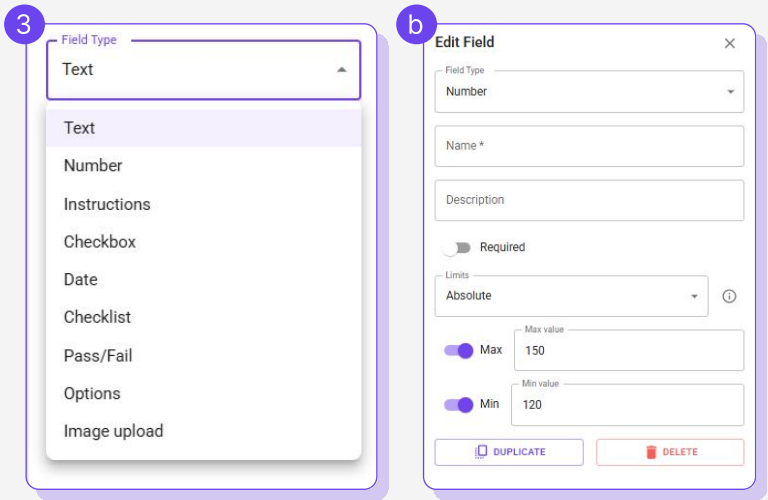


3 Add elements and customize

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



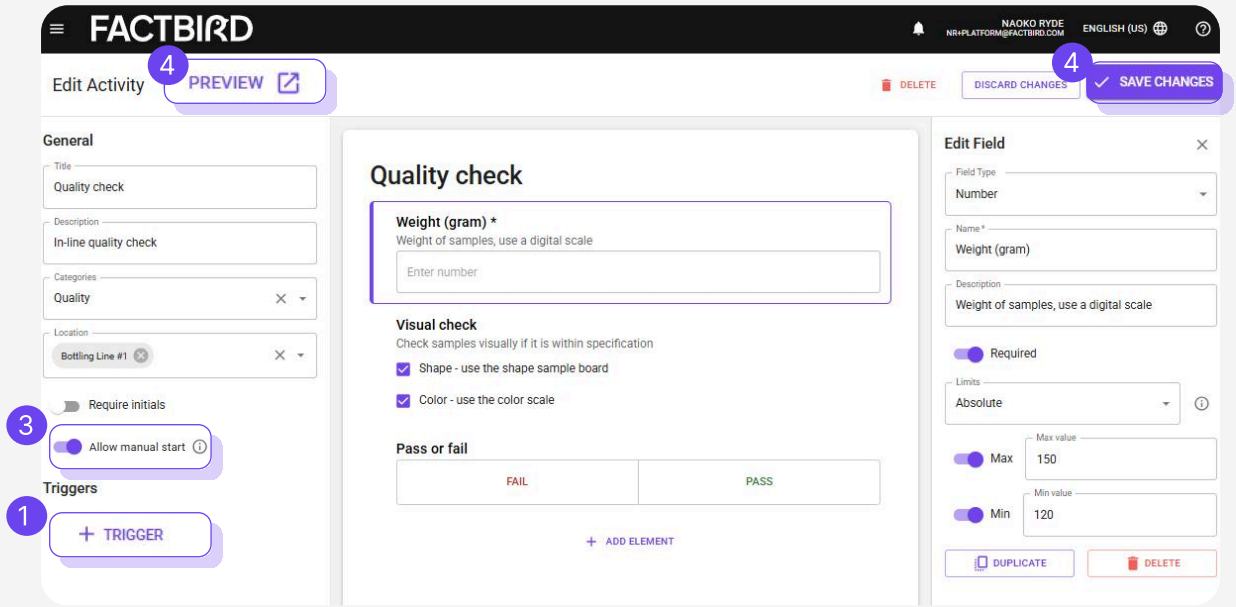
3. Choose a "**Field Type**" from the drop-down menu. This determines how the field will function during execution.
   a. **Text**: Allows text to be entered.
   b. **Number**: Allows numbers to be entered. When "**Number**" is selected, you can set "**Limits**" to specify acceptable ranges. For example, 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.



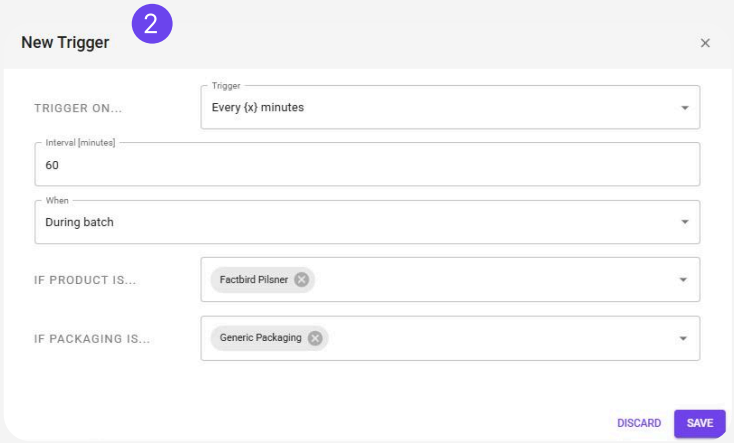
4 Set up Triggers

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**".

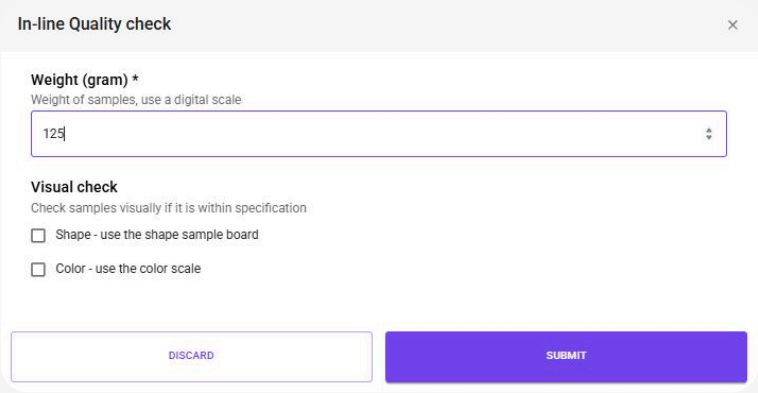


New Trigger pop-up page:
The trigger can be based on duration, actual production cycles, events (such as every shift start), calendar-based fixed times, or stop causes.

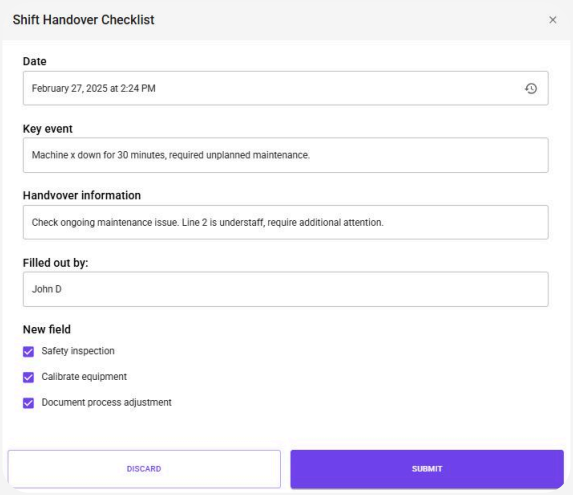


Examples of SOPs, guides, checklists and forms

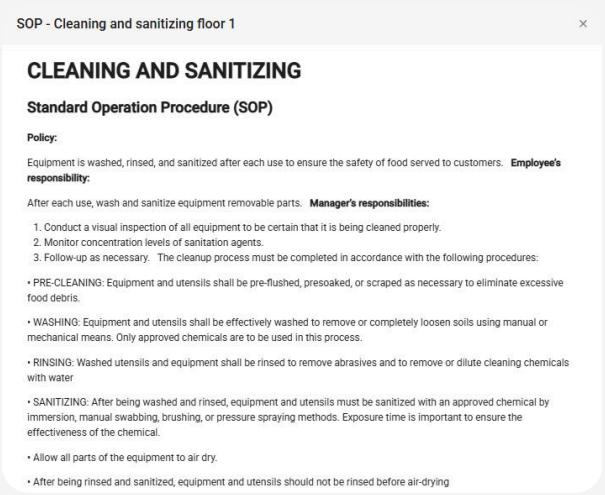
- **Forms**: An in-line quality check form can be created with an input field for sample weight, triggered every 30 minutes during the batch of a specific product, and categorized as pass or fail based on the wight threshold.



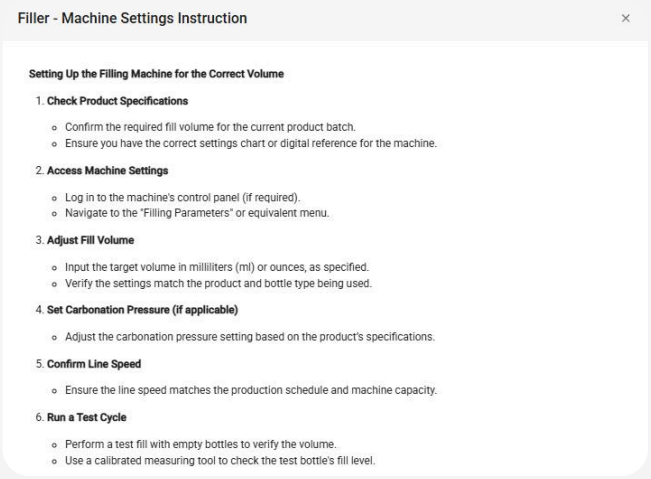
- **Checklist**: A shift handover checklist can be created with a list of items to be checked and triggered to appear every time a shift ends.



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



- **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”.

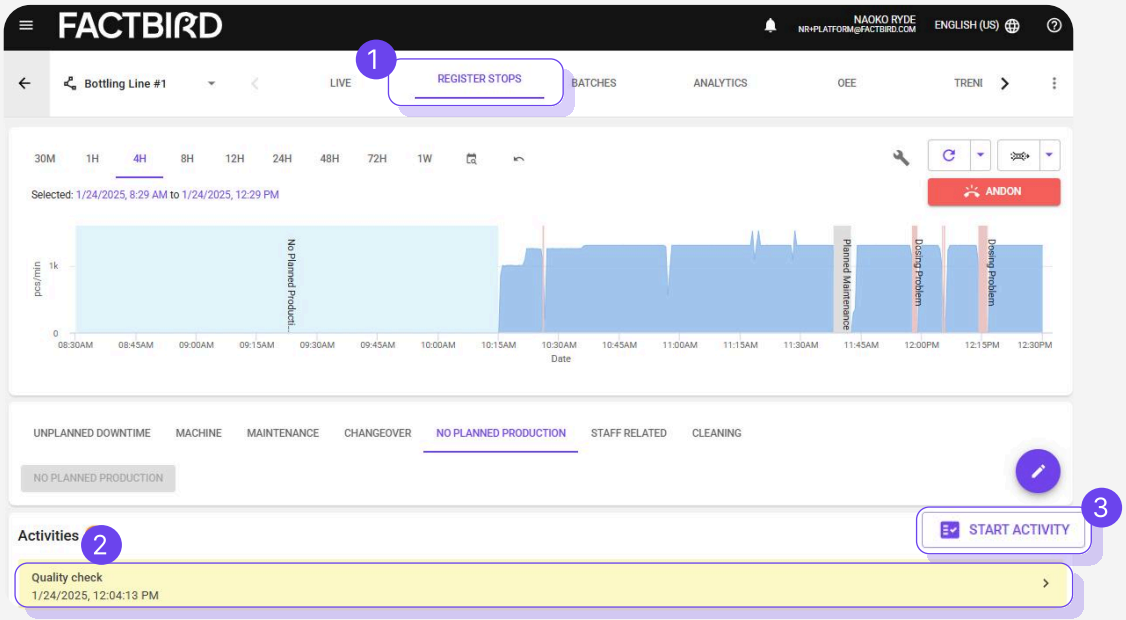


Executing activities

1 View triggered activities

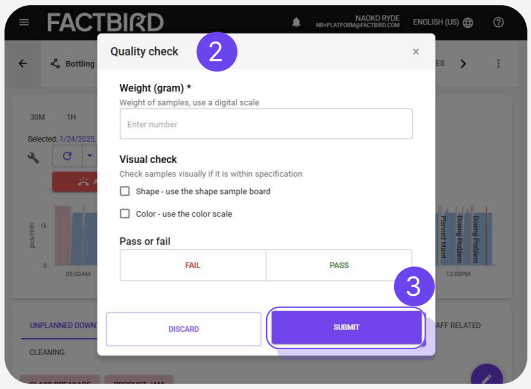
Once activities are created using the Digital form builder, they will be triggered and displayed on the "**REGISTER STOPS**" page.

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 activies

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**".



Viewing execution insights

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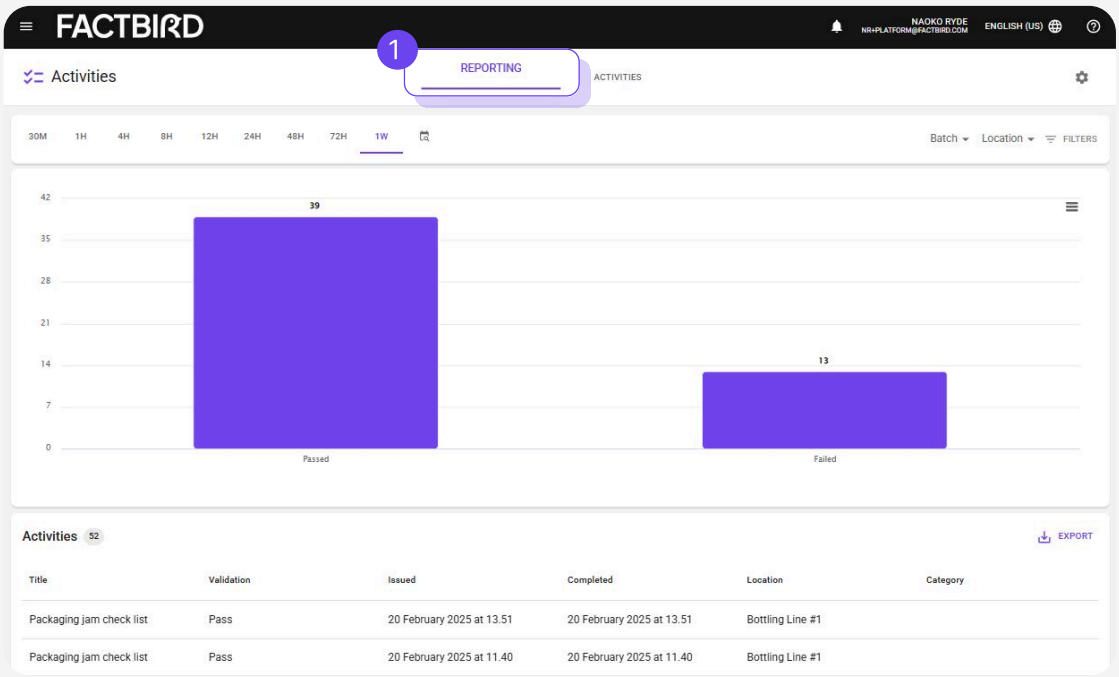
View execution insigts

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



Preventive Maintenance

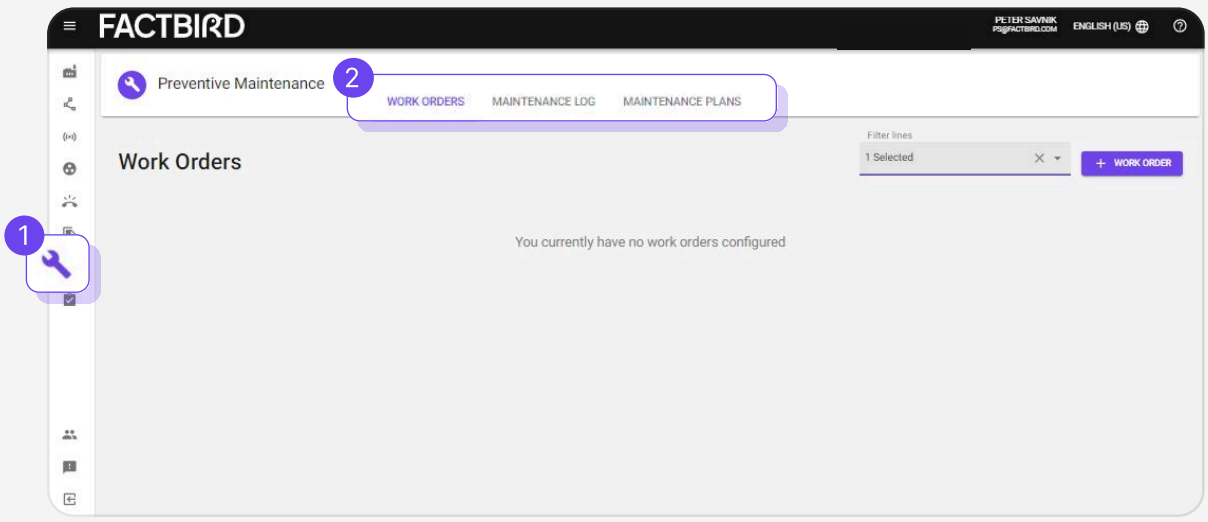
What is Preventive Maintenance?

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

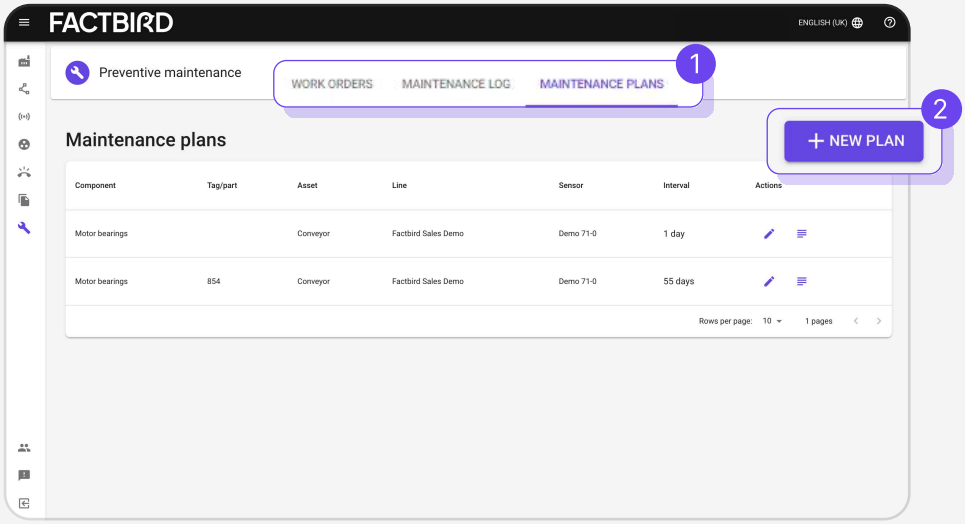
1. On the menu, click on **'"Preventive Maintenance".**
2. There are three tabs.
   a. **"MAINTENANCE PLANS"**: You can create your maintenance plans, which will automatically generate work orders based on your specifications. This is for those who plan the maintenance schedule and view how all work 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 “I**nstructions**” field.

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.

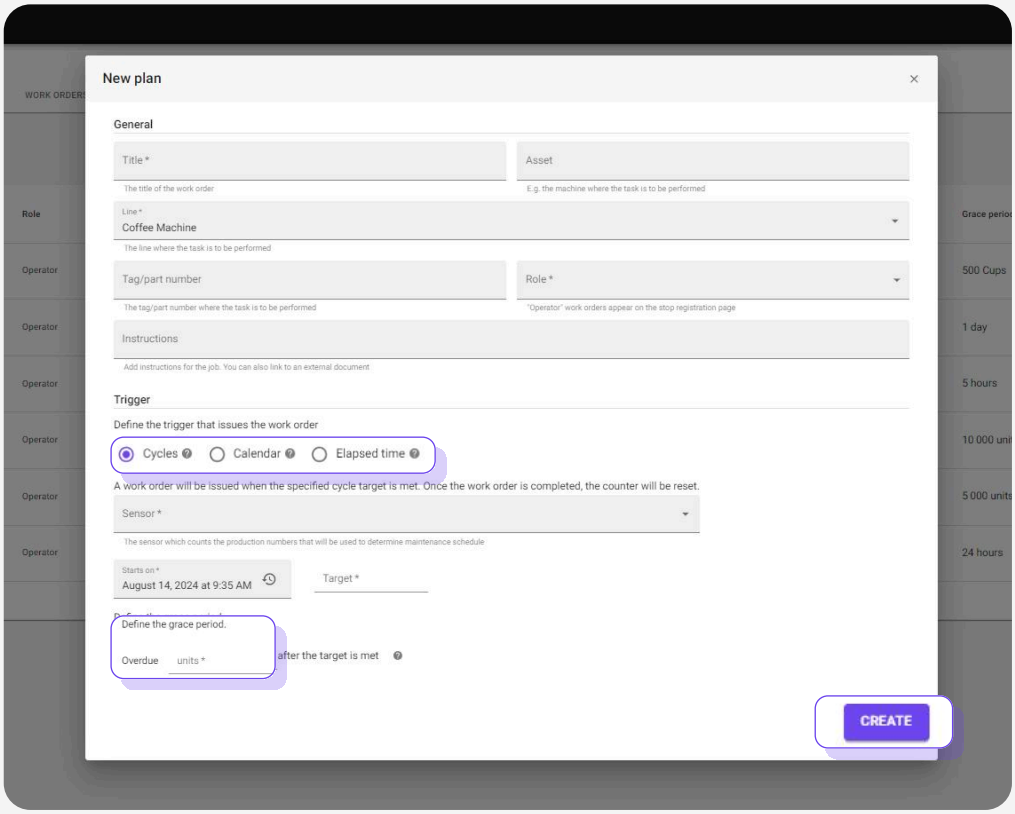
"**Calendar**":

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.

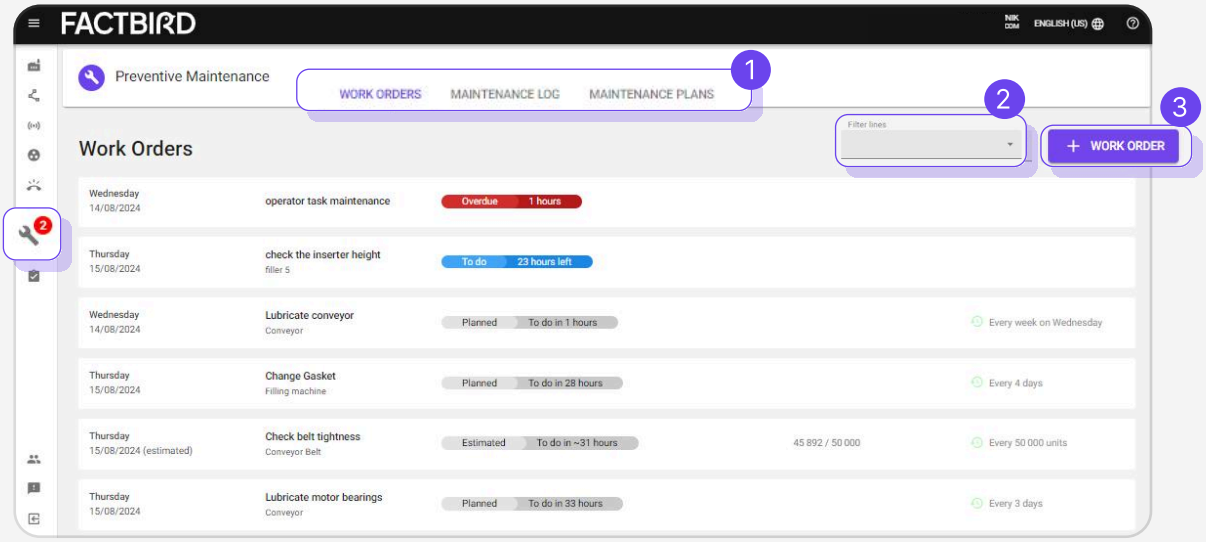


Click "**CREATE**", and the maintenance plan will appear in the list.

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

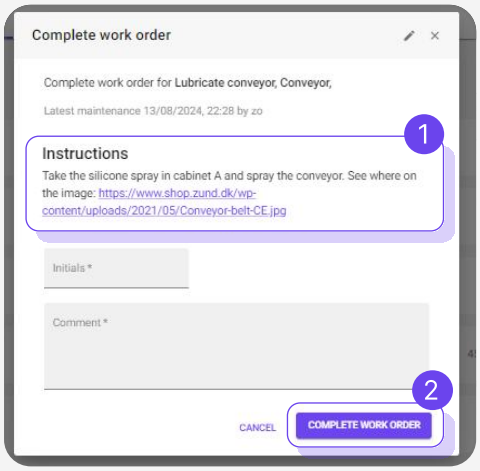
- **Overdue** work orders are displayed in red, indicating that the grace period has ended and showing how long it has been since it ended.

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**".

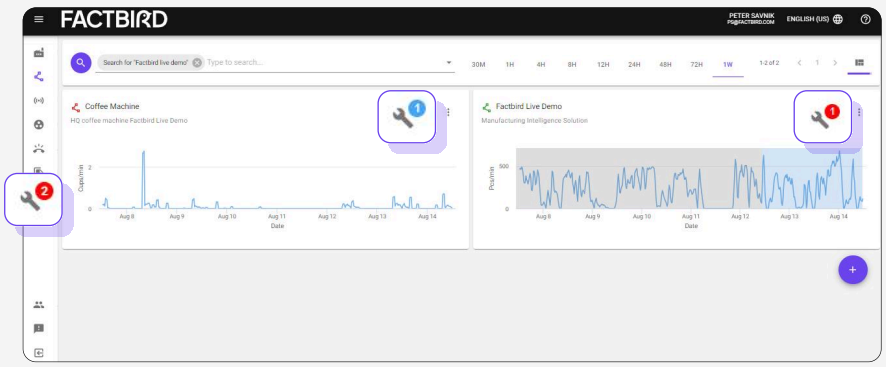
2 Perform and complete work orders

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.



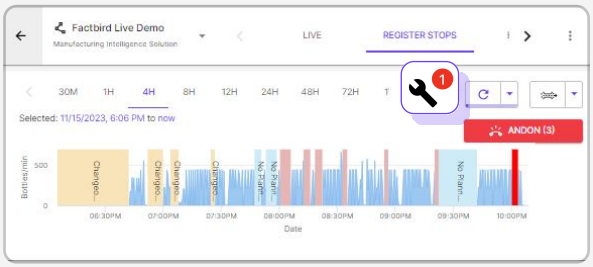
3 Prompt technicians and operators to perform the required work orders

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.

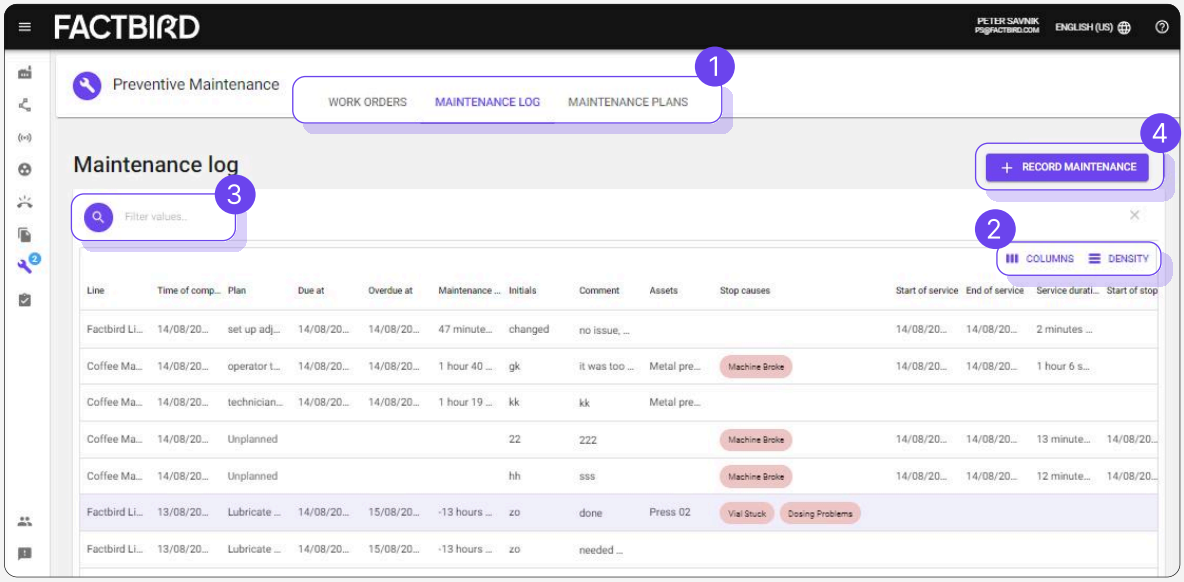
Work orders for operators appear on the "**REGISTER STOPS**" page.



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.



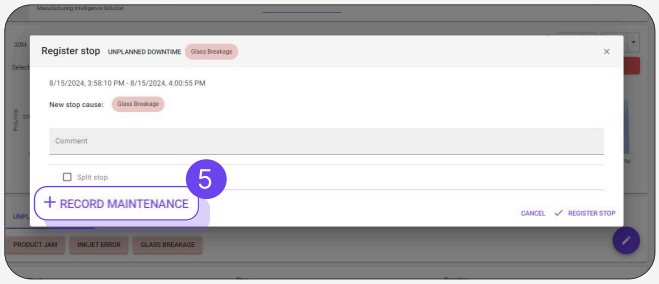
Unplanned maintenance tasks

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.

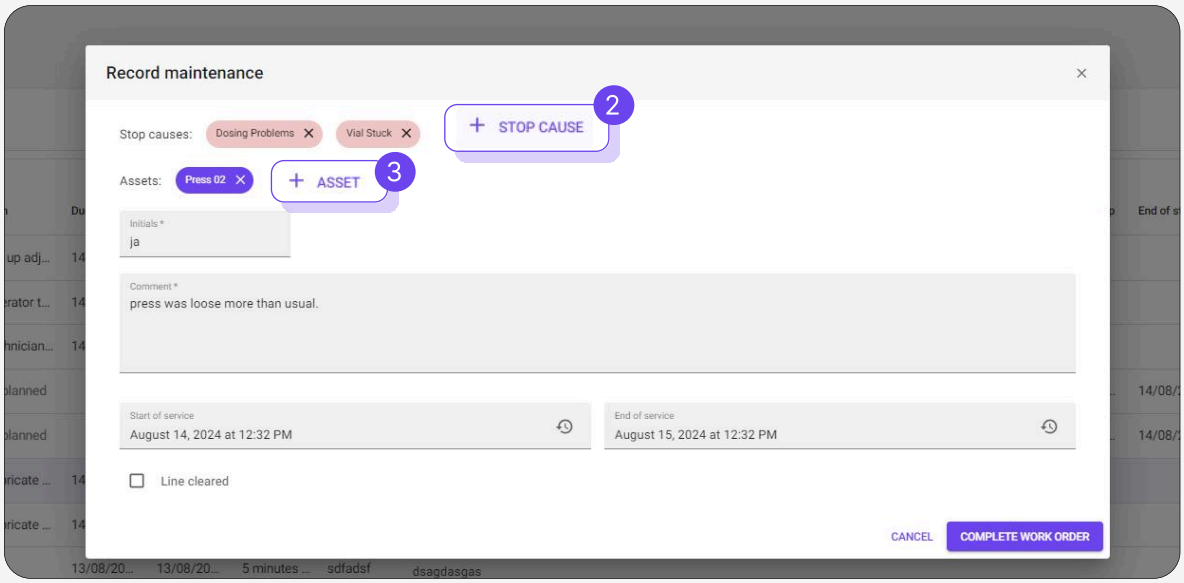
Create and log spontaneous maintenance tasks when registering stop causes

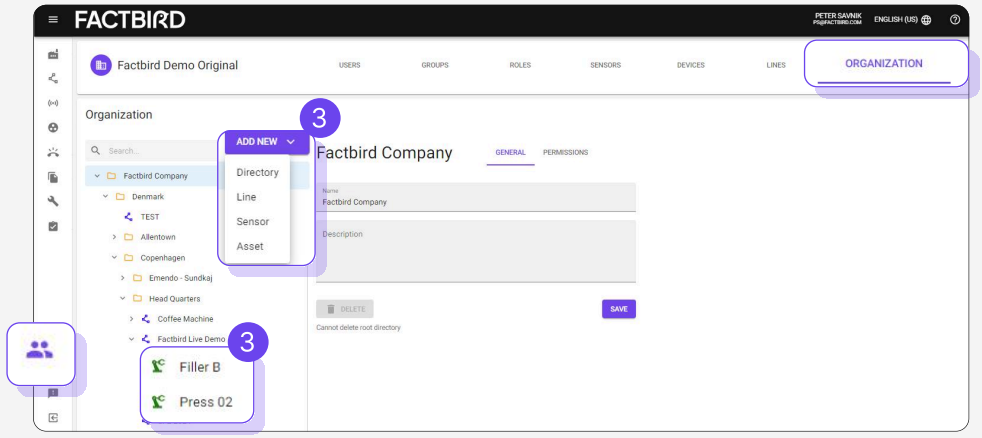
5. When you register a stop cause, you can simultaneously log a maintenance task required for the stop. Clicking "**+ RECORD MAINTENANCE**" on the "Register Stop" screen allows you to record the maintenance task, which will then be logged in the "**MAINTENANCE LOG**".



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

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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.