Measure with Leanshift

User Manual

As of: 2026-04-17
Complete manual — all 71 chapters.

Measure with Leanshift – User Manual

Click-by-click guide for operating the Measure with Leanshift app.

This manual explains **how** to use the app, not **why**. Lean terminology (KATA, Muda, Gemba, SMED, takt time, NWZZ, …) is not defined here — separate reading material covers the theory. Here you only learn where to click, which fields to fill in, and what happens next.

How this manual is organised

The manual follows the actual workflow inside the app:

> **Install → First Launch → Set Goal → Set Up → Stopwatch → Current State → Target Calculator → Experiment → Value Stream → Analysis → Data Backup**

Each chapter is short (1–2 pages) and always has the same structure:

1. **What you see** (screenshot)
2. **What you need to enter** (table with field type, unit, required, default, valid values)
3. **Step by step** (numbered click-path)
4. **What happens next** (link to the next step)

Contents

Part 3 – Set up

- 14 – Define steps
- 15 – Load template
- 16 – Rename a step
- 17 – Reorder steps
- 18 – Delete a step

Part 4 – Stopwatch

- 19 – Use the quick stopwatch
- 20 – Read the lap list
- 21 – Save times as a recording
- 22 – Measure cycles in a recording
- 23 – Understand the fastest time
- 24 – Set muda tags on a step

Part 5 – Current state

- 25 – Coaching question 2: current state
- 26 – Enter KPIs
- 27 – Coaching question 3: obstacles

Part 6 – Target calculator

- 28 – Open the calculator
- 29 – Enter capacity and personnel
- 30 – Demand and working time
- 31 – Enter losses
- 32 – Assembly times per step
- 33 – Take the fastest time from a recording
- 34 – Fill the target column
- 35 – The 14 target KPIs
- 36 – Investment calculator
- 37 – Save a snapshot

Part 7 – Experiment and learning

- 38 – Coaching question 4: next experiment
- 39 – Coaching question 5: learnings
- 40 – View the coaching history

Part 8 – Value stream map

- 41 – Create a workflow
- 42 – Choose a block type

- 43 – Enter block metrics
- 44 – Link a recording to a block
- 45 – Muda tags on a block
- 46 – Arrange blocks on the canvas
- 47 – Read the timeline
- 48 – Export a workflow

Part 9 – Analysis and charts

- 49 – Open the analysis page
- 50 – Create a custom chart
- 51 – Current vs. target comparison
- 52 – Muda diagram
- 53 – Value analysis (pie chart)
- 54 – Bottleneck analysis
- 55 – Takt gauge
- 56 – Export a chart

Part 10 – Data backup

- 57 – Create a backup
- 58 – Restore a backup
- 59 – Import Excel / CSV
- 60 – Export a recording as PDF
- 61 – Delete all data (GDPR)

Part 11 – For decision makers

- 62 – Tier comparison
- 63 – Pricing and validity
- 64 – License on a new device
- 65 – Roll-out in the company

Part 12 – Troubleshooting

- 66 – App doesn't start
- 67 – License errors
- 68 – Import fails
- 69 – Stopwatch jumps
- 70 – Missing data
- 71 – Contact support

Quick links by audience

New user – start at 01 – Install the PWA and work through in order.

Coach / facilitator – go to 10 – Coaching question 1: target condition, then 25 – Current state, 27 – Obstacles, 38 – Next experiment, 39 – Learnings, 40 – Coaching history.

Decision maker / buyer – see 62 – Tier comparison, 63 – Pricing, and 65 – Roll-out in the company.

IT / installation – Part 0 (install, license) and Part 10 (data backup).

Version note

This manual matches the current version of the Measure with Leanshift app. Fields and buttons may change with future updates.

Step 1 – Install the PWA in your browser

What you see

Leanshift runs as a Progressive Web App directly in your browser. You do not need to download anything or go through a store — one click in the address bar is enough, and the app appears like a regular program on your device.

What you need to enter

Field	Type	Required	Unit	Default	Valid
App address (URL)	URL in the browser	Yes	—	—	`https://lean-shift.com/app`

Step by step

1. Open a modern browser (Chrome, Edge, Firefox, or Safari).
2. Go to the app address: `https://lean-shift.com/app`.
3. Wait for the start page to finish loading.
4. On the right side of the address bar, click the small install icon (a monitor with an arrow), or open the browser menu and choose **Install Leanshift**.
5. Confirm the dialog with **Install**.
6. The app then appears as its own window on your desktop or in the start menu.

What happens next

On first launch, the app automatically starts the onboarding flow. All data you enter is stored only locally on your device.

Continue with Step 4 – Activate license if you already own a Pro or Premium license. Or continue with Step 5 – Onboarding to start right away.

Related fields

- Android app as APK: Step 2
- Windows desktop app: Step 3

Notes

- The PWA works fully offline. After the first install, you do not need an internet connection to use it.
- On iPhone and iPad, the option in the Safari menu is called **Add to Home Screen**. The app then appears as its own icon next to your other apps.

- The Free version includes stopwatch, coaching questions, onboarding, and help. Additional features are unlocked by a license.
- Leanshift is not an official Toyota product.

Step 2 – Install the Android app (APK)

What you see

On Android, Leanshift is installed from an APK file. You receive this file directly from the provider. The app then runs without a Google Play account and without an internet connection.

What you need to enter

Field	Type	Required	Unit	Default	Valid
APK file	File path on device	Yes	—	—	Ends with `.apk`
Permission **Install from unknown sources**	Toggle	Yes	—	off	on

Step by step

1. Download the APK file to your Android device. It usually lands in the **Downloads** folder.
2. On the device, open **Settings** and look for **Apps** or **Security**.
3. Turn on **Install from unknown sources** for the browser or file manager you use to open the APK.
4. Open your file manager and tap the downloaded APK file.
5. Confirm the dialog with **Install**.
6. Wait for the installation to finish. Tap **Open** to launch the app.
7. Turn the permission **Install from unknown sources** back off afterward.

What happens next

On first launch, the app guides you through the onboarding flow. It runs fully offline and stores all data locally in the app storage.

Continue with Step 4 – Activate license or directly with Step 5 – Onboarding.

Related fields

- PWA in browser: Step 1
- Windows desktop app: Step 3

Notes

- The APK build is functionally identical to the PWA.

- Pro and Premium builds are separate APK files. If you bought a higher tier, install the matching file — not the Free build.
- To update, simply install the new APK over the old one. Your local data is preserved.
- If the file manager flags the APK as unsafe, verify you received it directly from the provider.

Step 3 – Install the Windows desktop app (EXE)

What you see

On Windows, Leanshift is installed as a desktop app. After installation, the app is available in the Start menu and the Programs folder and behaves like any other Windows application.

What you need to enter

Field	Type	Required	Unit	Default	Valid
EXE installer file	File path	Yes	—	—	Ends with `.exe`
SmartScreen confirmation	Button	Yes	—	—	**Run anyway**

Step by step

1. Download the installer file (`Leanshift-Setup.exe`) to your PC.
2. Open the folder where the file was saved — usually **Downloads**.
3. Double-click the file.
4. Windows usually shows the **SmartScreen** dialog. Click **More info** and then **Run anyway**.
5. Follow the installer. If prompted, enter the administrator password.
6. Close the installer with **Finish**.
7. Open Leanshift from the Start menu or via the new desktop icon.

What happens next

On first launch, the app guides you through the onboarding flow. The desktop variant runs offline, stores data locally, and does not require sign-in.

Continue with Step 4 – Activate license or directly with Step 5 – Onboarding.

Related fields

- PWA in browser: Step 1
- Android app as APK: Step 2

Notes

- The desktop variant is a Tauri build. It uses the same code as the PWA but runs in its own window without a browser frame.
- For Pro and Premium, there is a dedicated installer. Choose the one that matches your purchased license.
- To update, run the new installer over the old version. Your data is preserved.

- If Windows blocks execution permanently, verify that you received the file directly from the provider.

Step 4 – Activate license

What you see

At the route `/pricing`, you find the **Pricing** page with three cards — Free, Pro, and Premium — and the license activation dialog. You received your license key by email at purchase.

What you need to enter

Field	Type	Required	Unit	Default	Valid
License key	Text	Yes	—	—	Key from the email; whitespace is stripped automatically

Buttons on the page:

Button	Location	Effect
Buy now	Pro or Premium card	Opens the checkout link in a new browser tab
Activate license	Pro or Premium card	Opens the activation dialog
Activate	Activation dialog	Checks the key and unlocks the tier
Cancel	Activation dialog	Closes the dialog without change
Deactivate license	Below the active card	Turns the tier off again, freeing the key for another device
Go to Dashboard	Free card	Returns to the start page

Step by step

1. Open the app and click the **Pricing** entry in the menu, or go directly to `/pricing`.
2. On the **Pro** or **Premium** card, click **Activate license**.
3. In the **Activate License** dialog, paste your key into the field labelled **Paste your license code here...**.
4. Click **Activate**.
5. During verification, the status reads **Checking...**.
6. On success, the dialog closes automatically and the card shows the **Active** badge at the top.

What happens next

Your chosen tier is unlocked. Pro features (process recording, muda analysis, coaching history, export, snapshots) or Premium features (condition calculator, investment calculator, value stream analysis) are available immediately.

Continue with Step 5 – Onboarding.

Related fields

- Use license on a new device: Step 64
- Pricing and validity: Step 63
- If activation fails: Step 67 – License errors

Notes

- The annual license runs for **365 days from activation**. All prices exclude applicable taxes.
- An invalid key shows the message **Please enter a valid license key.** or **Activation failed.**.
- To move the license to another device, first click **Deactivate license**. Then activate the same key on the new device.
- Opening a link like `https://lean-shift.com/app?key=YOUR-KEY` activates the license automatically, without you having to type the key.

Step 5 – Onboarding: the 8 slides

What you see

On first launch, the onboarding opens as a modal window titled **Leanshift — Introduction**. Eight slides walk you through the core idea of the app. You can reopen it later anytime from the help section.

What you need to enter

Field	Type	Required	Unit	Default	Valid
Domain selection (slide 1)	Choice	Yes	—	—	**Production & Manufacturing** or **Administration & Office**
Don't show again	Checkbox	—	—	off	on/off

The 8 slides at a glance:

Slide	Title	Content
1	What's your field?	Choose your domain: **Production & Manufacturing** or **Administration & Office**
2	The lean measure to maximize your value.	Short app intro
3	Coaching — Your Compass	Preview of the 5 coaching questions
4	Measure, Don't Estimate	Preview of the stopwatch with cycle measurement
5	Current vs. Target — Your Savings Calculator	Preview of the condition calculator
6	Analysis — Make Bottlenecks Visible	Preview of the analysis page
7	Your Data Belongs to You	Note about offline and local storage
8	Ready? Let's go!	Closing slide with start button

Buttons at the bottom of the modal:

Button	Effect
Back	Go back one slide
Next	Go forward one slide
Let's go	Only on slide 8 — closes the onboarding
Close tutorial (X icon top right)	Exit onboarding at any time

Button	Effect
Don't show again	Checkbox at the bottom — prevents the onboarding from reopening on next launch

Step by step

1. When the onboarding opens automatically, read slide 1 **What's your field?**.
2. Tap **Production & Manufacturing** or **Administration & Office**, depending on your work environment.
3. Click **Next** and work through slides 2 to 7. You do not have to enter anything, just read.
4. On slide 8, click **Let's go**.
5. If you do not want to see the onboarding again on next launch, check the **Don't show again** box before closing.

What happens next

After closing, you land on the dashboard. Your chosen domain decides whether the app shows examples and labels from production or from administration.

Continue with Step 6 – Choose language.

Related fields

- Reopen onboarding later: Help menu in the header
- Dashboard overview: Step 8
- First coaching question (target condition): Step 10

Notes

- The domain selection on slide 1 only changes example labels in the interface (e.g. "Assembly process" in production vs. "Processing operation" in administration). You can switch it later from the header menu.
- The onboarding is identical for all three tiers — Free, Pro, and Premium.
- The slides contain preview visuals for coaching, stopwatch, current-vs-target, and muda. These are for orientation — the actual tools open later from the navigation.

Step 6 – Choose language

What you see

In the top right of the header, you see a small toggle with the labels **DE** and **EN**. One click switches the interface language instantly, without reloading the app.

What you need to enter

Field	Type	Required	Unit	Default	Valid
Language toggle	Toggle	—	—	follows browser language	**DE** (Deutsch) or **EN** (English)

Step by step

1. Look at the top right of the header for the toggle with **DE** and **EN**.
2. Click the code for the language you want. The toggle highlights the active language.
3. The interface changes immediately. Menus, fields, and buttons appear in the new language.

What happens next

The chosen language persists across restarts. Your own entries (process names, notes, coaching answers) remain in the language you originally typed them in.

Continue with Step 7 – Set the theme.

Related fields

- Domain switch (Production / Administration): in the same header area
- Reopen onboarding: Help menu

Notes

- Internally, the app supports more than DE and EN — the header toggle currently exposes those two.
- Switching the language only translates the interface. Your own content such as process names or coaching answers is not rewritten.

Step 7 – Set the theme (light / dark)

What you see

In the header, you see a small icon — either a sun or a moon. That toggle switches the interface between light and dark mode.

What you need to enter

Field	Type	Required	Unit	Default	Valid
Theme toggle	Toggle	—	—	dark	**Switch to light mode** or **Switch to dark mode**

Step by step

1. Locate the sun or moon icon at the top of the header.
2. Click the icon. The interface switches instantly.
3. Light grey surfaces with dark text mean light mode. Dark surfaces with light text mean dark mode.

What happens next

The chosen theme persists across restarts.

Continue with Step 8 – Dashboard overview.

Related fields

- Language toggle: Step 6

Notes

- The theme switch has no effect on stored data or licenses. It is purely visual.
- On very small screens, the toggle may be inside a collapsed menu — open the menu icon in the header first.

Step 8 – Dashboard overview

What you see

The start page at `/` shows dashboard widgets at the top (key figures, last recording, coaching progress), followed by the list of your recordings and a button bar on the right for import, export, and new recording.

What you need to enter

Field	Type	Required	Unit	Default	Valid
Search by process, employee, date	Text	—	—	empty	Any search term, appears only when there are more than 3 recordings

Buttons in the header bar (left to right):

Button	Tier	Effect
Backup	Pro	Creates a JSON file with all data for download
Restore	Pro	Opens a file dialog to import a backup file
Import	Pro	Opens a file dialog for Excel, CSV, or JSON
+ New	Pro	Opens the form for a new recording

Other elements:

Element	Location	Meaning
Dashboard widgets	Top area	Key figures, last recording, coaching progress
Heading **Recordings**	Middle	Start of the recordings list
Notice banner **Ready for your first analysis?**	Only when the list is empty	Leads to the onboarding
Target-hint banner	Only when no coaching reflection exists yet	Link **Go to coaching** opens `/coaching`

Step by step

1. Open the app. It starts automatically on `/`.
2. Read the dashboard widgets at the top. They show your current status at a glance.
3. Scroll down to the **Recordings** heading to see your list.
4. Use the search field once you have more than three recordings to filter quickly.

5. Click **+ New** to create a new recording. The click leads to the form.
6. Click a recording in the list to open the recording page.
7. Click the pencil icon next to a recording name to rename it inline.
8. Click the trash icon of a recording to delete it. The app asks **Really delete this recording?**.

What happens next

If you have not yet saved a coaching answer, clicking **+ New** first shows the hint dialog **Do you want to define your target condition first?**. There you choose between **Define target first** and **Proceed to recording**.

Continue with Step 9 – Create a new recording or with Step 10 – Coaching question 1: target condition.

Related fields

- Unlock license (for Pro buttons): Step 4
- Create backup: Step 57
- Import Excel / CSV: Step 59

Notes

- Without a Pro license, **Backup**, **Restore**, **Import**, and **+ New** automatically lead to the pricing page `/pricing`.
- After a successful import or restore, the app reloads automatically so all values are up to date.
- Search matches the process name, employee, coach, and recording date. It is not case-sensitive.

Step 9 – Create a new recording

What you see

Clicking **+ New** opens a form below the button bar with four fields. Only **Process** is required — all others are optional.

What you need to enter

Field	Type	Required	Unit	Default	Valid
Process *	Text	Yes	—	empty	Non-empty, e.g. **Assembly Part A**
Employee	Text	—	—	empty	Any name
Coach	Text	—	—	empty	Any name
Date	Date	—	—	today	YYYY-MM-DD

Buttons in the form:

Button	Effect
Start recording	Saves the form and opens the recording page at `/session/:id`
Cancel	Closes the form without saving

Step by step

1. At the top right of the dashboard, click **+ New**.
2. If you have not saved a target condition yet, the hint dialog **Do you want to define your target condition first?** appears. Click **Proceed to recording** to continue without a target condition, or **Define target first** for the recommended path.
3. The **Recording** form opens. Click the required field **Process *** and enter a descriptive name, for example `Assembly Part A`.
4. Optional: fill in **Employee**, **Coach**, and a different **Date**.
5. Click **Start recording**.

What happens next

The app saves the new recording and redirects you to the recording page `/session/:id`. There you next define the steps you want to measure.

Continue with Step 14 – Define steps. If you want to set a target condition first, go to Step 10 – Coaching question 1: target condition.

Related fields

- Dashboard overview: Step 8
- Rename a recording later: pencil icon in the recordings list
- Backup and restore: Step 57

Notes

- Creating a recording requires the **Pro** tier. Without a Pro license, clicking **+ New** redirects to the pricing page `/pricing`.
- If the process name is empty, the form shows **Process name is required.** and does not save.
- Process, employee, and coach can be changed later on the recording page.

Step 10 – Coaching question 1: target condition

What you see

On the coaching page `/coaching`, clicking **+ New coaching** opens the first of five questions: **What is the target condition?**. Below the heading is the large answer text field. To the right, you see five guiding questions for orientation.

What you need to enter

Field	Type	Required	Unit	Default	Valid
Target condition (answer)	Multi-line text	—	—	empty	Free text

Placeholder in the answer field: `e.g. Processing time is ≤ 10 minutes per case …`

Guiding questions (small buttons on the right):

No.	Guiding question
1	By when should this target condition be reached?
2	How will success be measured? Which metric?
3	Does it describe the condition or already the solution?
4	Is it a process metric or an outcome metric?
5	What changes specifically for employees or customers?

Buttons at the bottom:

Button	Effect
Back	To the previous step — greyed out on question 1
Next	To the next question (current condition)
Cancel	Discards all entries and leaves coaching
Save	Saves the current reflection (Pro tier)

Step by step

1. Open **Coaching** in the menu or go to `/coaching`.
2. At the top right, click **+ New coaching**.
3. Read the heading **What is the target condition?** and the small hint **Describe the target condition measurably without anticipating the solution.**.

4. Click into the large answer text field and describe the target condition in your own words. Example: `Processing time is ≤ 10 minutes per case at equal quality level by end of Q2.`
5. Walk through the five guiding questions on the right and click the ones you have answered. They are marked as **done**.
6. Click **Next** at the bottom to move on.

What happens next

The app stores the target condition as the answer to question 1. The next question **What is the current condition?** opens.

Continue with Step 11 – Set deadline if you want to enter a deadline in the calculator. Or go directly to Step 25 – Coaching question 2: current condition.

Related fields

- Measurability check (belongs to question 2): Step 12
- Coaching history with all past answers: Step 40

Notes

- Answering the coaching questions is available in the Free tier. **Saving** a reflection to the coaching history is a **Pro** feature. Without Pro, the message **Pro version required — unlock coaching reflections.** appears.
- Guiding questions are suggestions. You do not have to answer all of them to click **Next**.
- The app does not suggest answers. You write everything yourself in your own words.

Step 11 – Set deadline

What you see

On the calculator page `/calculator`, the **Target** section contains a date field labelled **Deadline (Date)**. You use it to state when the target condition should be reached.

What you need to enter

Field	Type	Required	Unit	Default	Valid
Deadline (Date)	Date	—	—	empty	YYYY-MM-DD, in the future
Target condition description	Text area	—	—	empty	Free text, solution-free and measurable

Helper texts next to the fields:

Field	Helper text
Deadline (Date)	**By when should the target condition be reached?**
Target condition description	**What is the condition, not how we reach it.**

Placeholder in the description field: `Describe the target condition precisely without prescribing a solution. Example: "Assembly time per piece is ≤ 45 sec at equal quality level."`

Step by step

1. Open the **Calculator** entry in the menu or go to `/calculator`.
2. Scroll to the **Target** section with the heading **TARGET** or **Target state**.
3. Click into the **Deadline (Date)** field.
4. Pick the desired target date in the date picker. Alternatively, type it directly in **YYYY-MM-DD** format.
5. Click into **Target condition description** below and phrase the desired state in one sentence.

What happens next

The app stores the deadline and the description automatically with the current scenario. Both show up again in the result area and in every saved snapshot.

Continue with Step 12 – Fill in the measurability check.

Related fields

- Coaching question 1 (target condition in words): Step 10
- Save a snapshot of the complete scenario: Step 37

Notes

- The calculator is part of the **Premium** tier. In Free and Pro, the page is locked.
- If the date field stays empty, the snapshot simply has no deadline. Calculations still work.
- The description should be measurable (contain a number) and solution-free (no "We install a jig").

Step 12 – Fill in the measurability check

What you see

Under question 2 **What is the current condition?**, you find the **Measurability check** section with four small radio groups. The answers produce a coloured status badge — green, yellow, or red — showing how well the current state is measurable.

What you need to enter

Field	Type	Required	Unit	Default	Valid
Can you describe the current state with a number?	Radio	—	—	empty	**Yes**, **Partially**, **No**
This statement is based on …	Radio	—	—	empty	**Own measurement**, **System data**, **Observation**, **Estimate**
Measurement frequency	Radio	—	—	empty	**Daily**, **Weekly**, **Monthly**, **Rarely / never**
Metric type	Radio	—	—	empty	**Process metric**, **Outcome metric**, **Both**

Status badge above the fields:

Colour	Meaning
Green	**Current state: measurable** — well captured numerically
Yellow	**Current state: partially measurable**
Red	**Current state: not measurable**

Step by step

1. Scroll to question 2 on the coaching page and open the **Measurability check** section.
2. Under **Can you describe the current state with a number?**, pick one of the three options.
3. Under **This statement is based on …**, pick the matching data source.
4. Under **Measurement frequency**, pick how often the value is captured.
5. Under **Metric type**, pick whether it is a process or outcome metric.
6. The badge above the fields updates instantly to green, yellow, or red.

What happens next

The measurability check is saved together with the answer to question 2. In the coaching history, you can later see how measurability improved over time.

Continue with Step 13 – Save target condition.

Related fields

- Coaching question 2 (current state in words): Step 25
- Coaching history: Step 40

Notes

- The measurability check is **part of question 2** (current state) — it does not appear under the other four questions.
- All four groups are optional. If you pick nothing, the badge stays grey.
- A red badge is not forbidden. It simply signals that you should collect better measurements before running an experiment.

Step 13 – Save target condition

What you see

At the bottom of the coaching page, you see the button bar with **Back**, **Next**, **Cancel**, and **Save**. Once you have answered the questions, save the reflection with a click on **Save**.

What you need to enter

No further entries. Saving takes all the answers you have filled in so far.

Buttons at the bottom:

Button	Effect
Save	Creates a new coaching reflection in the history
Update	Appears instead of **Save** when editing an existing entry
Finish	Appears on the last question — saves and closes coaching
Cancel	Discards all changes without saving

During saving, the button shows **Saving…**.

Step by step

1. Make sure the questions you wanted to answer are filled in. Empty questions are accepted.
2. Click **Save** in the bottom button bar.
3. While saving, the button shows **Saving…**.
4. On success, the new reflection appears in the coaching history under today's date.

What happens next

The reflection is now available in the coaching history under `/coaching`. You can reopen, edit, or delete it later.

Continue with Step 14 – Define steps to begin the process recording.

Related fields

- View coaching history: Step 40
- Measurability check: Step 12

Notes

- Saving requires the **Pro** tier. Without Pro, the app shows **Pro version required — unlock coaching reflections.** instead of the save button.
- You can save a reflection even if not all five questions are answered. Unanswered questions appear in the history as **No input**.
- When editing an existing entry, the button is labelled **Update** — that changes the existing record instead of creating a new one.

Step 14 – Define steps

What you see

On the recording page `/session/:id`, the middle area holds the list of your process steps. Above the list, on the right, is the **+ Step** button.

What you need to enter

Field	Type	Required	Unit	Default	Valid
Step name	Text	—	—	**Step {{nr}}** (e.g. Step 1)	Max 100 chars

Placeholder in the name field: `e.g. Fetch material`.

Buttons and icons per step row:

Element	Location	Effect
Step number	Left	Auto-incrementing
Step name	Middle	Inline editable
Pencil icon	Right of the name	Edit name
Measure icon	Far right	Starts cycle measurement for this step
Trash icon	Far right	Delete step
+ Step	Above the list	Add a new step
Load template	Above the list	Opens the template picker
Save as template	Menu	Saves current steps as a new template

Step by step

1. On the recording page, click **+ Step** at the top.
2. An empty step name field appears with the placeholder `e.g. Fetch material`.
3. Enter a descriptive name, for example `Fetch material`.
4. Press **Enter** or click outside to save the name.
5. Repeat steps 1 to 4 for every further process step.

What happens next

The steps are now listed in the order you created them. Next you can measure cycles (stopwatch), set muda tags, or save your steps as a template.

Continue with Step 22 – Measure cycles in a recording. Or go to Step 15 – Load template to use an existing template.

Related fields

- Rename a step: Step 16
- Reorder steps: Step 17
- Delete a step: Step 18
- Start cycle measurement: Step 22

Notes

- Creating steps requires the **Pro** tier.
- A step without a name appears in the list as **Step N** with its running number.
- You can always add more steps later. Already recorded cycles are preserved.
- If you use a similar process structure often, save it as a template via **Save as template** and reuse it in the next recording.

Step 15 – Load template

What you see

The template picker lists built-in and custom templates grouped by category. Each template card shows its name and the number of steps.

What you need to enter

Field	Type	Required	Unit	Default	Valid
Selected template	Choice	Yes, if you want to load	—	—	A template from the list

Built-in categories:

Category	Example templates
General	—
Production	**Assembly (general)**, **Setup operation**
Administration	—
IT	—

Per template card:

Element	Effect
Template name	Click loads the steps into the current recording
Steps count	Shows how many steps the template contains
Trash icon	Delete a custom template (not available on built-in)

Step by step

1. In the steps list, click **Load template** at the top.
2. The template picker opens with the heading **Choose template**.
3. Find the matching template in the categories, for example **Assembly (general)** under **Production**.
4. Click the template card. The steps are added to the recording.
5. The picker closes automatically.

What happens next

The template steps appear at the end of the list. Any steps you already had are kept. You can now rename, reorder, or measure the new steps.

Continue with Step 16 – Rename step or Step 22 – Measure cycles.

Related fields

- Create a custom template: **Save as template** button on the recording page
- Enter steps manually: Step 14

Notes

- Loading a template requires the **Pro** tier.
- Built-in templates (e.g. **Assembly (general)**, **Setup operation**) cannot be deleted.
- A loaded template does not replace your steps — it appends. If you want to start fresh, delete the existing steps first.

Step 16 – Rename step

What you see

In the steps list, every row has a pencil icon to the right of the name. Clicking it activates the name field so you can edit it.

What you need to enter

Field	Type	Required	Unit	Default	Valid
Step name	Text	—	—	current name	Max 100 chars

Step by step

1. Find the row whose name you want to change.
2. Click the pencil icon to the right of the name.
3. The name turns into an editable text field.
4. Change the text directly.
5. Press **Enter** or click outside the field to save the new name.

What happens next

The step name updates instantly — in the list, in all past measurements, and in exports.

Continue with Step 17 – Reorder steps or go back to cycle measurement.

Related fields

- Add a new step: Step 14
- Delete a step: Step 18

Notes

- Editing saves automatically — there is no separate **Save** button.
- If you leave the field empty, the step shows as **Step N** with its running number.
- Already recorded measurements remain attached to the step, even if you change the name.

Step 17 – Reorder steps

What you see

You change the order of process steps in the **Cycle results** area of the recording page. Click **Edit order** there and use the arrows next to each step.

What you need to enter

No direct text entry. Changes are made via arrow icons.

Elements in edit mode:

Element	Effect
Edit order	Turns on edit mode
Up arrow	Moves the step one position up
Down arrow	Moves the step one position down
Done	Leaves edit mode and saves the new order

Step by step

1. On the recording page, scroll to the **Cycle results** area.
2. Click **Edit order**.
3. Up and down arrows appear next to every step.
4. Click the up arrow to move a step higher in the list, or the down arrow to move it lower.
5. When the order is correct, click **Done**.

What happens next

The new order is applied instantly in every view — measurement, analysis, export. Already recorded cycles stay attached to their steps.

Continue with Step 18 – Delete step or go straight to measurement in Step 22.

Related fields

- Rename a step: Step 16
- Add a new step: Step 14

Notes

- This feature is part of the **Pro** tier.

- Reordering keeps all measurements and muda tags linked to each step — nothing is lost.
- In other parts of the recording page (e.g. the plain steps list), edit mode may not be available. Use the **Cycle results** path.

Step 18 – Delete step

What you see

Every step row has a trash icon on the far right. Clicking it opens a confirmation dialog that asks before the step is removed for good.

What you need to enter

No input. Just a confirmation.

Dialog elements:

Element	Effect
Trash icon	Starts the delete flow
Confirmation dialog	Asks **Really delete this step?**
OK	Deletes the step including all measurements and muda tags
Cancel	Aborts the delete flow

Step by step

1. Find the row you want to remove in the steps list.
2. Click the trash icon on the far right.
3. The confirmation dialog asks **Really delete this step?**.
4. Click **OK** to remove the step, or **Cancel** to stop.

What happens next

The step disappears from the list instantly. All related cycle measurements and muda tags are removed with it. The remaining steps are renumbered automatically.

Continue with Step 22 – Measure cycles in a recording.

Related fields

- Reorder instead of deleting: Step 17
- Delete a full recording: trash icon in the recordings list on the dashboard

Notes

- Deletion is **not reversible** — measurements and muda tags are gone.
- If you might need the data later, create a backup from the dashboard before deleting.

- The confirmation dialog is your last safeguard — read the text before clicking **OK**.

Step 19 – Use the quick stopwatch

What you see

On the stopwatch page `/times`, you see a large time display at the top, a row of buttons below it, and the lap list at the bottom.

What you need to enter

Nothing. The quick stopwatch works only with buttons.

Element	Type	Effect
Start	Button	Starts the measurement from 0
Lap	Button	Stores the current time as a lap entry; the clock keeps running
Stop	Button	Pauses the measurement
Reset	Button	Clears the time and all laps
Time display	Display	Current time in **MM:SS.ms** format
Lap list	Table	Shows every lap with number and duration

Step by step

1. Open **Stopwatch** in the menu or go to `/times`.
2. Click **Start**. The time display begins counting.
3. At the end of a step, click **Lap**. A new row with the lap time appears in the list.
4. Repeat step 3 for every further step you want to measure.
5. Click **Stop** to pause.
6. Click **Reset** to begin a new measurement. All current laps are cleared.

What happens next

All lap times are visible as a list under the stopwatch. You can save them as a new recording and continue with analysis.

Continue with Step 20 – Read the lap list or go directly to Step 21 – Save times as a recording.

Related fields

- Measure cycles inside a recording: Step 22
- Dashboard overview: Step 8

Notes

- The quick stopwatch is available in every tier (Free, Pro, Premium).
- A browser tab switch does not pause the clock — the timing continues even when the app is in the background.
- If you already have a recording with defined steps, use cycle measurement inside the recording (see Step 22) — those times are attached to the steps directly.

Step 20 – Read the lap list

What you see

Below the time display, the list shows every lap you stored by clicking **Lap**. Each lap has a running number and its duration.

What you need to enter

Nothing. The list is display-only.

Column	Meaning
Lap {{nr}}	Running lap number
Time	Lap duration in **MM:SS.ms** format

Step by step

1. Start the stopwatch with **Start** and click **Lap** repeatedly.
2. Scroll to the lap list below the time display.
3. Read row by row — every row is one lap; the time is the delta from the previous lap to the current click.
4. Times are always **delta** between two lap clicks, not total absolute time.

What happens next

If you need the times for later analysis, save them as a recording.

Continue with Step 21 – Save times as a recording.

Related fields

- Start the quick stopwatch: Step 19
- Cycles inside a recording: Step 22

Notes

- The lap list is transient — once you click **Reset**, the laps are gone. Save them as a recording first if you want to keep them.
- There is no sorting. The list stays in the order you clicked laps.
- The list shows as many entries as you have laps. There is no fixed cap.

Step 21 – Save times as a recording

What you see

Clicking **Save as recording** opens the **Create recording** dialog. It shows a field for the process name and a list of the measured laps. For each lap, you can enter a step name.

What you need to enter

Field	Type	Required	Unit	Default	Valid
Process name *	Text	Yes	—	empty	Non-empty, e.g. **Assembly Part A**
Step name per lap	Text	—	—	**Step {{nr}}**	Max 100 chars

Placeholder in the process field: `e.g. Assembly Part A`. Placeholder for each lap step name: `Step {{nr}}` (e.g. `Step 1`).

Buttons in the dialog:

Button	Effect
Save	Creates the recording and opens its recording page
Cancel	Closes the dialog, the times stay in the lap list
Delete step (trash icon per row)	Removes this lap before saving

Step by step

1. After a measurement with several laps, click **Save as recording**.
2. The **Create recording** dialog opens.
3. Enter a name in the required field **Process name ***, for example `Assembly Part A`.
4. The list below shows your laps with default names **Step 1**, **Step 2**, … Click into a field and type a descriptive name.
5. If a lap was captured by mistake, click the trash icon next to it.
6. Click **Save**.

What happens next

The app creates a new recording, stores the lap times as the first cycle, and opens the recording page at `/session/:id`. There you can measure more cycles, set muda tags, or open analysis.

Continue with Step 22 – Measure cycles in a recording.

Related fields

- Quick stopwatch: Step 19
- New recording without stopwatch data: Step 9

Notes

- Saving a recording requires the **Pro** tier.
- If the process name is empty, the dialog does not save — the required mark `*` turns red.
- The saved recording initially contains only one cycle (your laps). Measure more cycles later to get a reliable basis.

Step 22 – Measure cycles in a recording

What you see

Inside a recording, you start cycle measurement by clicking the measure icon next to a step or by clicking **Start** in the stopwatch area at the top. The app then measures every step in sequence and counts cycles automatically.

What you need to enter

No text. Measurement runs via buttons.

Fields and indicators in the recorder:

Element	Type	Effect
Steps per cycle	Number	Taken from your steps list
Number of cycles	Number	Default 3, adjustable
Start	Button	Begins measurement of the current step
Next step	Button	Saves the time and moves to the next step
Pause	Button	Pauses the clock without losing time
Resume	Button	Continues measurement after a pause
Stop	Button	Ends the running cycle
Reset	Button	Discards the running cycle
Cycle {{current}}/{{total}}	Indicator	How many cycles have been measured
Step {{current}}/{{total}}	Indicator	Current step inside the cycle
Time display	Display	Running time in **MM:SS.ms** format

Step by step

1. Open the recording you want to measure by clicking its card on the dashboard.
2. In the **Cycles** area at the top, click the measure icon next to the desired step — or click **Start** if all steps should run in order.
3. The time display starts. The progress indicator shows **Cycle 1/3, step 1/5**.
4. As soon as the current step is done, click **Next step**. The app saves the time and moves one step ahead.
5. After the last step of a cycle, the app automatically counts one cycle forward and restarts at step 1.
6. Continue until all cycles are measured. The app finally shows **Done!**.

What happens next

All measurement times are stored per step. The recording page now shows average, minimum, and maximum per step, plus the fastest total time.

Continue with Step 23 – Understand the fastest time or with Step 24 – Set muda tags.

Related fields

- Define steps: Step 14
- Quick stopwatch without recording: Step 19

Notes

- Measuring inside a recording requires the **Pro** tier.
- If you need more cycles than the default (3), change **Number of cycles** before you start.
- During measurement, you can click **Pause** anytime — the clock stops and shows **Paused — time not being counted**.
- The button **Reset all** discards the entire measurement. The app asks **Reset current recording? All measurements of the running recording will be lost.** before clearing.

Step 23 – Understand the fastest time

What you see

Below the steps list, a summary table shows per step the average, minimum, maximum, and **Best cycle**. It also has a row **Savings potential** with the difference between average total and fastest possible time.

What you need to enter

No input. All values are calculated automatically from your measurements.

Columns of the summary table:

Column	Meaning
Step	Step name
Ø	Average across all measurements
Min	Fastest measured time
Max	Slowest measured time
Best	Best (fastest) cycle — highlighted green
Total	Sum across all steps

Extra rows under the table:

Row	Meaning
Best cycle	Cycle time of the fastest run
Fastest possible	Sum of minimum values across all steps
Savings potential	Difference in seconds and percent compared with the average total

Step by step

1. Open the recording you want to look at.
2. Scroll below the steps list to the summary table.
3. Read the **Min** column — it shows the fastest time you have ever measured per step.
4. Read the **Fastest possible** row, which mathematically sums the Min values.
5. The **Savings potential** row shows the difference to the average total in seconds and percent.

What happens next

The fastest time per step persists even if you record more cycles. It serves as a baseline for your improvement experiments.

Continue with Step 24 – Set muda tags on a step.

Related fields

- Measure cycles: Step 22
- Document the current state: Step 25
- Import the fastest time into the calculator: Step 33

Notes

- The summary appears only after at least one full cycle has been measured. Before that, the app shows **No measurements**.
- The **Best** time is the fastest you have ever measured — not the theoretical minimum.
- Savings potential uses per-step minimum values, not the minimum of a complete cycle. That is intentional — it reflects a state you have already achieved once per step.

Step 24 – Set muda tags on a step

What you see

Below the cycle results table, each step has a muda area with seven coloured tiles. Each tile stands for one muda type. Clicking toggles the marker on or off. A note field appears per marked type.

What you need to enter

Field	Type	Required	Unit	Default	Valid
Waiting	Tile (on/off)	—	—	off	on/off
Transport	Tile (on/off)	—	—	off	on/off
Motion	Tile (on/off)	—	—	off	on/off
Inventory	Tile (on/off)	—	—	off	on/off
Overproduction	Tile (on/off)	—	—	off	on/off
Over-processing	Tile (on/off)	—	—	off	on/off
Defects / Rework	Tile (on/off)	—	—	off	on/off
Untapped talent	Tile (on/off)	—	—	off	on/off
Note	Text	—	—	empty	Free, e.g. cause or quantity

Placeholder in the note field: `Note on {{type}}…`, e.g. `Note on Transport…`.

Step by step

1. On the recording page, scroll to the muda area below a measured step.
2. Click one of the seven tiles (e.g. **Waiting**). The tile turns coloured and is marked.
3. A note field appears with the placeholder **Note on Waiting…**. Enter the concrete case, e.g. `Material cart arrives 2 min late`.
4. Repeat for other muda types.
5. To remove a marker, click the tile again.

What happens next

Markers and notes appear on the analysis page (muda diagram) and in exports. They also count in summary metrics as **high waste share** when many steps are affected.

Continue with Step 25 – Coaching question 2: current state or the muda analysis in step 52.

Related fields

- Muda tags on a value-stream block: Step 45
- Analysis page: Step 49

Notes

- Setting muda tags requires the **Pro** tier.
- Notes are optional — but they help a lot with later root-cause analysis. The more specific, the better.
- Any number of muda types can be active on one step at the same time.

Step 25 – Coaching question 2: current state

What you see

After question 1, the coaching flow takes you to the second question **What is the current condition?**. The large answer text field sits below the heading. On the right are five guiding questions. Below the field, the **Measurability check** section begins (see Step 12).

What you need to enter

Field	Type	Required	Unit	Default	Valid
Current state (answer)	Multi-line text	—	—	empty	Free text

Placeholder: `e.g. Currently a case takes an average of 18 minutes …`

Guiding questions on the right:

No.	Guiding question
1	Did you observe or measure this yourself?
2	How often / how long / how many — specifically?
3	When was this data last collected?
4	What happens between which steps exactly?
5	Which process steps are affected?

Helper under the heading: **Only facts and observations. No root causes, no solutions.**

Step by step

1. At the end of question 1, click **Next** to open question 2.
2. Read the heading **What is the current condition?** and the helper text below.
3. Click into the large answer field and describe the current state with numbers and facts. Example: `Processing time currently averages 18 min per case, measured over 20 runs.`
4. Walk through the five guiding questions on the right and click each one you have answered.
5. Fill in the **Measurability check** below (see Step 12).
6. Click **Next** to move on to question 3 (obstacles).

What happens next

The current state, together with the measurability check, is stored as the answer to question 2 once you finish coaching.

Continue with Step 26 – Enter KPIs or go directly to Step 27 – Coaching question 3: obstacles.

Related fields

- Measurability check: Step 12
- Coaching history: Step 40

Notes

- The helper **Only facts and observations. No root causes, no solutions.** is a quality reminder — the app still accepts any text.
- Good current-state statements contain numbers with a time frame and a measurement method.
- The current state stays visible in the coaching history and serves as the baseline for your experiment.

Step 26 – Enter KPIs

What you see

Below the coaching questions sits the section **Capture metrics (optional)**. It contains six fixed KPIs for the selected domain (Production or Administration) and a list of custom metrics with the **+ Add custom metric** button.

What you need to enter

Fixed KPIs (Production domain):

Metric	Type	Required	Unit	Default	Valid
Cycle Time	Number	—	Seconds	empty	> 0
Takt Time	Number	—	Seconds	empty	> 0
Lead Time	Number	—	Minutes	empty	> 0
OEE	Number	—	%	empty	0–100
Productivity	Number	—	%	empty	0–100
Scrap Rate	Number	—	%	empty	0–100

In the **Administration** domain the fields are named differently (**Processing Time**, **Service Rate**, **First Resolution Rate**, **Error Rate**).

Custom metrics:

Field	Type	Required	Unit	Default	Valid
Name	Text	—	—	empty	Max 50 chars (e.g. **Count**)
Unit	Text	—	—	empty	Max 20 chars (e.g. **pcs**)
Value	Number	—	free	empty	Any

Buttons:

Button	Effect
+ Add custom metric	Adds a new empty custom metric row
Trash icon per custom metric	Removes that metric

Step by step

1. Scroll on the coaching page to the **Capture metrics** section.

2. Click into **Cycle Time** and enter your measured or estimated value in seconds.
3. Repeat for the remaining fixed KPIs where you have values.
4. To capture a custom metric, click **+ Add custom metric**.
5. Enter a name (e.g. `Count`) and a unit (e.g. `pcs`). Then the value.
6. Repeat until all relevant metrics are captured.

What happens next

The KPIs are stored together with the coaching reflection. In the coaching history, you can compare them over time.

Continue with Step 27 – Coaching question 3: obstacles.

Related fields

- Coaching question 2: Step 25
- Coaching history: Step 40
- Target KPIs in the calculator: Step 35

Notes

- All KPI inputs are optional.
- Fixed field names change automatically when you switch between **Production** and **Administration**. Stored values are kept.
- Custom metrics are stored per device and are offered as suggestions for the next coaching reflection.

Step 27 – Coaching question 3: obstacles

What you see

Question 3 **What obstacles are in the way?** follows after question 2. The app again shows the large answer text field and now four guiding questions on the right.

What you need to enter

Field	Type	Required	Unit	Default	Valid
Obstacles (answer)	Multi-line text	—	—	empty	Free text

Placeholder: `e.g. The handoff between step 3 and 4 creates wait time because …`

Guiding questions on the right:

No.	Guiding question
1	Is it an obstacle or already a solution / root cause?
2	Why is this an obstacle? (Ask 5× Why)
3	What would happen if this obstacle were removed?
4	Which one obstacle will you address today?

Helper: **What prevents reaching the target condition right now? Focus on one specific obstacle.**

Step by step

1. Click **Next** after finishing question 2.
2. Read the heading **What obstacles are in the way?** and the helper below.
3. Click into the large answer field and describe the obstacle currently keeping you from the target condition.
4. Walk through the four guiding questions on the right and click each one you have answered.
5. Click **Next** to move on to question 4 (experiment).

What happens next

The obstacle is saved with the reflection and appears in the coaching history as its own column.

Continue with Step 38 – Coaching question 4: next experiment.

Related fields

- Coaching question 2 (current state): Step 25

- Coaching history: Step 40

Notes

- Pick one specific obstacle, not several at once. The app accepts any text, but the next question (experiment) targets a single obstacle.
- Avoid naming a solution here. The solution belongs to question 4.
- If no obstacle comes to mind clearly, pause and go back to question 2 (current state) — often a measurement is still missing.

Step 28 – Open the calculator

What you see

At the route `/calculator`, the **Condition calculator** opens. At the top sits a tab bar with four views — **Overview**, **Current state**, **Target state**, **Investment**. The **Result preview** sits on the right.

What you need to enter

No direct input on this overview. Input fields live inside the sub-tabs.

Tabs and their content:

Tab	Content
Overview	Result dashboard with the most important KPIs
Current state	All input fields for today's state
Target state	All input fields for the desired state plus target KPIs
Investment	Personnel costs, savings, investment positions, amortization target

Buttons in the header:

Button	Effect
Link recording	Loads assembly times and the fastest time from an existing recording
Scenarios	Opens the list of saved snapshots
Reset	Clears all inputs after confirming with **Reset all inputs?**

Banners below the header:

Banner	When visible
Demo preview — Tap a field to start with your own data. Or reset	On first open while no own values exist yet
Linked — Assembly times and NWZZ are taken from measurement data.	When a recording is linked

Step by step

1. Open **Calculator** in the menu or go to `/calculator`.
2. The page starts in the **Overview** tab with a demo preview.
3. Pick **Current state** in the tab bar to begin entering values.
4. If desired, click **Link recording** at the top to take measurement data from an existing recording.

5. To start from scratch, click **Reset** and confirm with **OK**.

What happens next

All tabs are now available. You can begin your inputs in the **Current state** tab.

Continue with Step 29 – Enter capacity and personnel.

Related fields

- Link a recording (import NWZZ): Step 33
- Save a snapshot: Step 37
- Unlock license: Step 4

Notes

- The calculator is part of the **Premium** tier. In Free and Pro, the page is locked — you see the hint **Unlock Pro** and land on the pricing page when you click it.
- Overwrite the demo preview by entering your own values. Alternatively, click **reset** in the banner to start with empty fields.
- Inputs save automatically after each field change — there is no separate **Save** button for individual values.

Step 29 – Enter capacity and personnel

What you see

You are on the calculator page at `/calculator`. At the top, directly below the page heading, you find the section **Personnel & Capacity** with three input fields.

What you need to enter

Field	Type	Required	Unit	Default	Valid
Employees per shift	Number	—	count	1	greater than 0
Shifts per day	Number	—	count	1	greater than 0
Working days per year	Number	—	days	250	greater than 0

Step by step

1. Click into the **Employees per shift** field.
2. Clear the default value `1` and enter your actual number, for example `5`.
3. Press **Tab** to jump to the next field.
4. Enter your value in **Shifts per day**, for example `2`.
5. Press **Tab**.
6. Enter your value in **Working days per year**, for example `230`.

What happens next

The app instantly calculates the available net working time and shows it in the result bar at the top right. All further calculations in the calculator (takt time, OEE, utilization, output) automatically use these three values as their basis.

Continue with Step 30 – Demand and working time.

Related fields

- Gross working time and breaks: Step 30
- Losses (failure, setup, scrap): Step 31
- Target column with the same fields: Step 34

Notes

- This section, and the entire condition calculator, is available from the **Premium** tier. In the Free and Pro versions, the page is locked.

- Values less than or equal to 0 are not accepted and are marked red.
- The same three fields also exist in the **Target** column — that is where you enter the desired capacity for your target condition, not the current one.
- Changes are saved automatically as soon as you leave the field. There is no separate save button.

Step 30 – Demand and working time

What you see

In the **Current state** tab, below **Personnel & capacity**, sits the **Demand & working time** section with three input fields.

What you need to enter

Field	Type	Required	Unit	Default	Valid
Demand / day	Number	—	units	0	≥ 0
Gross working time / day	Number	—	minutes	480	> 0
Breaks / day	Number	—	minutes	30	≥ 0

In the **Administration** domain, the field **Demand / day** is renamed **Cases / day**, and the section is titled **Case volume & working time**.

Step by step

1. Switch to the **Current state** tab in the calculator.
2. Scroll to the **Demand & working time** section.
3. Click into **Demand / day** and enter your customer demand, for example `120` units.
4. Press **Tab** and enter the actual shift length in minutes in **Gross working time / day**, for example `480`.
5. Press **Tab** and enter the total break time per day, for example `30`.

What happens next

From demand, gross working time, and breaks, the app automatically calculates takt time and net working time. Both values appear in the result preview on the right.

Continue with Step 31 – Enter losses.

Related fields

- Capacity and personnel: Step 29
- Losses (failure, setup, scrap): Step 31
- Target column with the same fields: Step 34

Notes

- These fields are part of the **Premium** tier.

- If **Demand / day** stays empty or at 0, the app does not compute takt time — that value in the result preview stays grey.
- The same fields appear in the **Target state** tab, where you enter the target values.

Step 31 – Enter losses

What you see

Below **Demand & working time**, the **Current state** tab shows the **Losses** section with three percent fields.

What you need to enter

Field	Type	Required	Unit	Default	Valid
Failure rate	Number	—	%	0	0–100
Setup rate	Number	—	%	0	0–100
Scrap rate	Number	—	%	0	0–100

In the **Administration** domain, the fields are called **Interruption rate**, **Preparation rate**, and **Rework rate**. The section title there is **Productivity losses**.

Helper texts next to the fields:

Field	Helper text
Scrap rate	**Scrap rate: empty = 0% scrap (100% quality)**
Rework rate (admin)	**Rework rate: empty = 0% rework (100% quality)**

Step by step

1. Stay on the **Current state** tab and scroll to the **Losses** section.
2. Click into **Failure rate** and enter the share of lost time due to failures as percent, for example `8` for 8 %.
3. Press **Tab** and enter the time share for setup operations in **Setup rate**, for example `5`.
4. Press **Tab** and enter the scrap or rework rate in **Scrap rate**, for example `2`.

What happens next

The values immediately feed into OEE, productivity, and effective output calculations. The result preview on the right updates automatically.

Continue with Step 32 – Assembly times per step.

Related fields

- Capacity and personnel: Step 29
- Demand and working time: Step 30

- Target column with the same fields: Step 34

Notes

- Values outside 0–100 are rejected and marked red.
- If you leave all three empty, the app assumes 0 % loss — usually unrealistic and producing over-optimistic results.
- The sum of all three shares can exceed 100 % — the app accepts that because setup, failure, and scrap times can overlap.

Step 32 – Assembly times per step

What you see

Inside the current state, the section **Line balancing (Assembly times per step)** lets you store a time for every process step — either measured or estimated.

What you need to enter

Per step row:

Field	Type	Required	Unit	Default	Valid
Step name	Text	—	—	**Step {{n}}**	Max 100 chars
Time	Number	—	Seconds	empty	> 0

In the **Administration** domain, the section is titled **Utilization (Processing times per step)**.

Buttons and toggles in the section:

Element	Effect
Add step	Adds a new step row
Trash icon per step	Removes this step
Show cost per step	Shows calculated cost per step once annual cost is set in Investment

Step by step

1. Scroll to the **Line balancing (Assembly times per step)** section in the **Current state** tab.
2. Click into the first step name field and enter a name, for example `Fetch material`.
3. In the same row, enter the step time in seconds, for example `18`.
4. Click **Add step** and repeat for further steps.
5. To remove a step, click the trash icon on its row.
6. Optional: turn on **Show cost per step** once you have set an annual cost under **Investment**.

What happens next

The sum of all step times equals **Total assembly time**, shown in the result area on the right. The app uses that to compute planned cycle time and assembly time per piece.

Continue with Step 33 – Take NWZZ from a recording.

Related fields

- NWZZ (fastest measured time): Step 33
- Open calculator: Step 28
- Measure cycles in recording: Step 22

Notes

- Up to 10 steps are visually supported best. Longer lists work but require scrolling.
- When you link a recording (see Step 33), step names and times are taken from the recording automatically — no manual input needed.
- Empty steps are ignored — they do not affect total time or results.

Step 33 – Take NWZZ from a recording

What you see

The **NWZZ (measured)** section shows the fastest cycle time measured so far. Clicking **Link recording** in the header opens a picker with all existing recordings. After linking, times import automatically.

What you need to enter

Field	Type	Required	Unit	Default	Valid
Lowest repeatable cycle time (NWZZ)	Number	—	Seconds	empty	> 0

Helper texts:

Helper	When visible
Imported automatically from a recording or the stopwatch.	In current state
Imported automatically when a recording is linked.	In target state

In the **Administration** domain, the section is titled **Shortest processing time (measured)**.

Buttons for linking:

Button	Effect
Link recording	Opens the picker with all recordings
Switch recording	Switches to another recording
Unlink	Removes the link — entered values remain
Pick a recording to link:	Heading inside the dialog
Recording card	Click links the recording

Step by step

1. Click **Link recording** in the header.
2. The dialog opens with the heading **Pick a recording to link:**.
3. Click the recording card you want to connect.
4. The dialog closes. The top banner now reads **Linked — Assembly times and NWZZ are taken from measurement data.**.
5. The NWZZ and step times are now filled automatically and read-only.
6. To switch, click **Switch recording**. To disconnect, click **Unlink**.

What happens next

The NWZZ flows immediately into the result preview. All dependent KPIs update automatically.

Continue with Step 34 – Fill the target column.

Related fields

- Measure cycles in a recording: Step 22
- Understand the fastest time: Step 23
- Enter assembly times manually: Step 32

Notes

- Linking only works when at least one recording with measured cycles exists. Otherwise the dialog shows **No recordings available.**.
- After **Unlink**, the last imported values remain as manual entries — the app does not erase them.
- In the **Target state** tab, you can link a different recording than in the current state.

Step 34 – Fill the target column

What you see

The **Target state** tab has the same structure as the current state tab. It contains identical sections — **Personnel & capacity**, **Demand & working time**, **Losses**, **NWZZ (measured)**, and **Line balancing (Assembly times per step)**. At the top sits the heading **Inputs for target state**.

What you need to enter

The same fields as in the current state tab, now with the **target values**.

Same fields as in:

Area	Fields
Personnel & capacity	Step 29
Demand & working time	Step 30
Losses	Step 31
Assembly times	Step 32
NWZZ (measured)	Step 33

Step by step

1. Switch from **Current state** to **Target state** in the tab bar.
2. You see the heading **Inputs for target state**.
3. Walk through the sections and enter your target values. Example: instead of `18` seconds assembly time per piece, enter `12`.
4. Fields you left empty in the current state stay empty here — unless you enter a value.
5. The result preview on the right now shows the **Current** → **Target** comparison with arrows and percent differences.

What happens next

The target condition is fully defined. The app calculates 14 target KPIs and compares them with the current state — next you review those values.

Continue with Step 35 – The 14 target KPIs.

Related fields

- Current state column: Step 29 to Step 33
- Deadline for the target condition: Step 11

- Save a snapshot: Step 37

Notes

- The target column does not require every field to be filled. Empty fields are marked **planned** in the preview.
- If you link a recording in the target tab (e.g. a best-practice recording with better times), target assembly times are imported from it.
- Target values should be ambitious but realistic. The app does not warn about unrealistically low targets.

Step 35 – The 14 target KPIs

What you see

Under the **Target KPIs** heading, the calculator shows 14 computed KPIs. Every row holds the current value, an arrow, and the target value, plus the absolute and percent difference.

What you need to enter

No direct inputs in this section — all KPIs are **computed values** from your inputs in steps 29 through 34.

The 14 KPIs at a glance:

No.	KPI	Unit	Source
1	Takt time	Seconds	From Demand / day + Net working time
2	NWZZ	Seconds	From linked recording or manual
3	Planned cycle time	Seconds	From total assembly time / step count
4	Total assembly time (calc)	Seconds	Sum of step times
5	Assembly time / piece	Seconds	From assembly time / pieces
6	Lead time	Minutes	From cycle time + scrap + setup
7	OEE	%	From availability × performance × quality
8	Productivity	%	From effective output / planned output
9	Capacity utilization	%	From demand × cycle time / net time
10	Scrap rate	%	From **Scrap rate** field
11	Setup time	Minutes	From setup rate × net working time
12	Failure time	Minutes	From failure rate × net working time
13	Net working time	Minutes	From gross working time − breaks
14	SWIP	Units	From demand × cycle time (standard work-in-progress)
15	Employees / day	Count	From employees × shifts

Step by step

1. Scroll in the **Target state** tab to the **Target KPIs** heading.
2. Read the list — the current value is on the left, the target value on the right, and the middle shows an arrow with the difference.
3. Red arrows signal that the KPI gets worse in target. Green arrows indicate improvement.

4. Click a KPI row to reveal its formula (where available).
5. If a KPI is missing or grey, an input is missing in the current or target tab — go back and fill it in.

What happens next

Once the 14 KPIs look plausible, you are ready for the investment calculator.

Continue with Step 36 – Investment calculator.

Related fields

- Current state inputs: Step 29 to Step 33
- Target state inputs: Step 34
- KPI fields in the coaching reflection: Step 26

Notes

- KPIs are **not manually entered** — they are derived from the inputs in the previous sections.
- Grey or empty cells mean missing inputs. Not a hint that a value is zero.
- The list shows different labels depending on domain (production vs. administration) — e.g. **First Resolution Rate** instead of **OEE** in administration mode.

Step 36 – Investment calculator

What you see

The **Investment** tab groups personnel costs, savings, and the list of planned investment positions. At the bottom sit the computed ROI and the amortization target.

What you need to enter

Personnel costs and savings:

Field	Type	Required	Unit	Default	Valid
Personnel cost / employee / year	Number	—	EUR	65000	> 0
Vacation days / year	Number	—	Days	30	0–365
Sick rate	Number	—	%	5	0–100
Additional savings / year	Number	—	EUR	0	≥ 0
Amortization target	Number	—	Months	empty	> 0

Investment positions (table, unlimited rows):

Field	Type	Required	Unit	Default	Valid
Description	Text	—	—	empty	Max 100 chars
Amount (EUR)	Number	—	EUR	empty	> 0

Buttons:

Button	Effect
+ Add position	Adds a new row to the investment table
Trash icon per row	Removes the position

Helper text when no calculation is possible: **Enter savings or change the target state to compute amortization.**

Step by step

1. Switch to the **Investment** tab.
2. Click into **Personnel cost / employee / year** and enter the gross annual salary per employee, for example `65000`.
3. Enter the average vacation days in **Vacation days / year**, for example `30`.
4. Enter the average sick rate in **Sick rate**, for example `5`.

5. If you have other savings besides personnel (e.g. material, energy), enter them in **Additional savings / year**.
6. Under **Investment positions**, click **+ Add position**. In the new row, enter a description and an amount, for example `Jig step 3` and `8500`.
7. Repeat for every planned investment.
8. Optional: enter the desired amortization in months in **Amortization target**.

What happens next

The app computes annual savings, total investment, and amortization period from your inputs. The result appears in the **Investment & Amortization** section.

Continue with Step 37 – Save snapshot.

Related fields

- Target state inputs: Step 34
- Snapshot for later comparison: Step 37
- Tier comparison (decision makers): Step 62

Notes

- Without savings from the target state or the **Additional savings** field, amortization cannot be computed. The app then shows **Enter savings or change the target state to compute amortization.**.
- The **Investment positions** table is flexible — you can delete single rows with the trash icon without losing the calculation.
- The **Amortization target** is a reference only — it is not used in the calculation; it is shown next to the computed value for comparison.

Step 37 – Save snapshot

What you see

Clicking **Scenarios** in the header opens the snapshot dialog. At the top, you can enter a name and click **Save** to create a new snapshot. Below, the app lists your existing scenarios with **Load** and **Delete** buttons.

What you need to enter

Field	Type	Required	Unit	Default	Valid
Scenario name	Text	—	—	**Scenario {{date}}**	Max 100 chars

Buttons in the dialog:

Button	Effect
Save	Creates a snapshot of the current state (current, target, investment inputs)
Load	Overwrites current inputs with the stored snapshot
Delete	Removes the snapshot (after confirmation)

Empty state hint: **No saved scenarios.**

Step by step

1. Click **Scenarios** in the calculator header.
2. The dialog opens. If no snapshot exists yet, you see **No saved scenarios.**.
3. Click into the **Scenario name…** field. The app suggests **Scenario {{today}}**; you can also type any name, e.g. `January 2026 Pro line`.
4. Click **Save**. The snapshot appears in the list under the given name.
5. To return to that state later, click **Load** next to the snapshot. The app asks **Reset all inputs?** and replaces current values.
6. To remove a snapshot, click **Delete** and confirm.

What happens next

The snapshot is stored permanently in the local database. It remains until you delete it manually or wipe all data via the GDPR feature.

Continue with phase **Experiment and learning** — Step 38 – Coaching question 4: next experiment.

Related fields

- Investment calculator: Step 36

- Full backup of all data: Step 57
- Licensing: Step 4

Notes

- Saving scenarios requires the **Pro** tier.
- A snapshot contains **all calculator inputs** at save time (current, target, investment, step lists, linked recording IDs).
- **Load** overwrites current inputs — the prompt **Reset all inputs?** is your warning before that happens.
- Snapshots are included in a backup export and are restored together with the rest of the data.

Step 38 – Coaching question 4: next experiment

What you see

After question 3, question 4 **What is your next step / experiment?** opens. The layout is identical to the other questions: large answer field, four guiding questions on the right.

What you need to enter

Field	Type	Required	Unit	Default	Valid
Next step / experiment (answer)	Multi-line text	—	—	empty	Free text

Placeholder: `e.g. I will test whether preparing documents in advance reduces wait time …`

Guiding questions on the right:

No.	Guiding question
1	What is your hypothesis? (If I do X, then I expect Y)
2	When exactly will you take this step?
3	What do you need to implement this?
4	How will you know if the hypothesis was confirmed?

Helper: **What will you specifically try next to remove an obstacle?**

Step by step

1. Click **Next** after finishing question 3.
2. Read the heading **What is your next step / experiment?** and the helper below.
3. Click into the answer field and phrase one concrete, small experiment. Example: `I prepare the documents one hour before shift start and measure 5 cases on Tuesday.`
4. Walk through the four guiding questions on the right and click each one you have answered.
5. Click **Next** to reach the final question (learnings).

What happens next

The experiment is saved as the answer to question 4 once you finish the reflection.

Continue with Step 39 – Coaching question 5: learnings.

Related fields

- Coaching question 3 (obstacles): Step 27
- Coaching history: Step 40

Notes

- A good experiment is **small**, **dated**, and **measurable**. The guiding questions help you think in that direction.
- Describing several experiments in one field is possible but makes later results unclear. Pick one.
- The app accepts any text — even one that is not a real experiment. Quality is up to you.

Step 39 – Coaching question 5: learnings

What you see

The final question **When can we see what you learned?** closes the coaching cycle. At the bottom, instead of **Next**, the button **Finish** saves the reflection and ends coaching.

What you need to enter

Field	Type	Required	Unit	Default	Valid
Learnings (answer)	Multi-line text	—	—	empty	Free text

Placeholder: `e.g. Tomorrow after the first shift I will measure the new time …`

Guiding questions on the right:

No.	Guiding question
1	When exactly — date and time?
2	How will you know if the experiment was successful?
3	What will you learn regardless of the experiment's outcome?
4	When is the next coaching cycle?

Helper: **When can you observe the result? What do you expect to learn?**

Finish button at the bottom:

Button	Effect
Finish	Saves the complete reflection and closes coaching

Step by step

1. Click **Next** after question 4.
2. Read the heading **When can we see what you learned?** and the helper.
3. Click into the answer field and enter the planned observation time and expected learnings.
   Example: `Thursday 14:00 after the first shift. I expect wait time to drop from 4 to 2 min.`
4. Walk through the four guiding questions on the right.
5. Click **Finish** at the bottom.

What happens next

The reflection now sits in the coaching history — your first complete coaching cycle is closed.

Continue with Step 40 – View the coaching history.

Related fields

- Coaching question 4 (experiment): Step 38
- Coaching history: Step 40
- Save target condition: Step 13

Notes

- **Finish** combines **Save** and **Close** — you return to the coaching overview.
- Enter a realistic date on which you can actually observe the result. Only then can the next reflection build on it.
- The fourth guiding question **When is the next coaching cycle?** reminds you to schedule the next reflection.

Step 40 – View the coaching history

What you see

On the coaching page, switch the tab from **Single** to **Table** to see the history of all past reflections. Each row is one reflection; the columns show all five questions plus KPIs.

What you need to enter

Nothing direct. The history is a display with filters and per-row actions.

Mode switch at the top:

Mode	Meaning
Single	Shows one reflection at a time (default)
Live Coaching	Walks question by question with progress
Table	Shows the complete history as a table

Columns of the history table:

Column	Meaning
Date	Date of the reflection
Target	Preview of the answer to question 1
Current	Preview of question 2
Obstacles	Preview of question 3
Next Step	Preview of question 4
Learn	Preview of question 5
Measurability	Badge colour from the measurability check
Metrics	Fixed and custom KPIs
Actions	Edit (pencil), Delete (trash)

Buttons and filters:

Button	Effect
Columns	Opens a filter to show / hide columns
Edit (pencil icon)	Opens the reflection for changes
Delete (trash icon)	Removes the entry after **Really delete this coaching entry?**

Step by step

1. Open the coaching page at `/coaching`.
2. Click the **Table** mode at the top.
3. The history appears with all past reflections in descending date order.
4. Click **Columns** to hide columns you don't need (e.g. the metrics group).
5. Click the pencil icon in a row to edit that reflection.
6. Click the trash icon and confirm **Really delete this coaching entry?** to remove it.

What happens next

You see your improvement progress over time. Editing an old reflection changes the entry in the history; on save, the button shows **Update** instead of **Save**.

Continue with phase **Value stream map** — Step 41 – Create a workflow.

Related fields

- Coaching questions 1–5: Step 10, 25, 27, 38, 39
- Measurability check: Step 12
- Export the history: Step 60 – PDF export

Notes

- Reading the history is part of the **Pro** tier. Without Pro, the app shows **Coaching history and reflection journal are part of Leanshift Pro.**.
- Empty cells mean the corresponding question was not answered in that reflection.
- The badge in the **Measurability** column matches 1:1 the badge from the measurability check (see Step 12).

Step 41 – Create a workflow

What you see

In the **Value stream analysis** section of the analysis page, you start with an empty list and the hint **No value stream yet**. Clicking **Create value stream** opens the form for a new workflow.

What you need to enter

Field	Type	Required	Unit	Default	Valid
Name	Text	Yes	—	empty	Non-empty, e.g. **Assembly line A**
Description	Text area	—	—	empty	Free

Buttons and elements:

Element	Effect
Create value stream	Opens the form for a new workflow
Create new value stream (form title)	Heading of the form
Edit value stream	Same form in edit mode
Use template	Starts a new workflow from an example template

Example templates:

Template	Description
Production assembly line	Incoming goods → Storage → Assembly → Inspection → Shipping
Office / Admin process	Intake → Check → Processing → Approval → Dispatch
Logistics goods receiving	Unloading → Goods-in check → Put-away

Step by step

1. Open the analysis page `/analysis` and scroll to the **Value stream analysis** section.
2. Click **Create value stream**, or pick one of the three example templates.
3. In the form, enter a descriptive title under **Name**, for example `Assembly line A`.
4. Optional: add a short description to capture context.
5. Click **Save**.

What happens next

The new workflow appears in the list and opens automatically on the canvas view. You can now add the first blocks.

Continue with Step 42 – Choose a block type.

Related fields

- Add a block: Step 42
- Export a workflow: Step 48
- Activate license: Step 4

Notes

- Value stream analysis is part of the **Premium** tier. Without Premium, the app shows **Free tier: max. 1 value stream with 5 blocks** and limits the functions.
- If **Name** stays empty, the error **Name is required.** appears and the form does not save.
- A template does not replace your own workflow — you can adjust or delete any block at any time.

Step 42 – Choose a block type

What you see

When adding a block, the app opens the **Edit block** form. At the top, you see the required **Type** dropdown with eight options. The chosen type defines the colour and icon of the block on the canvas.

What you need to enter

Field	Type	Required	Unit	Default	Valid
Type	Dropdown	Yes	—	**Process**	one of the eight options
Custom type name	Text	Only for type **Custom**	—	empty	Max 50 chars
Name	Text	Yes	—	empty	Max 100 chars, e.g. **Assembly step 1**

The eight block types:

Type	Meaning
Process	Active value-adding step
Storage	Intermediate storage or buffer
Transport	Movement of material or information
Idle time	Wait time without activity
Assembly	Joining multiple parts
Inspection	Quality or approval step
Setup	Tool or setup change
Custom	Your own type with a name you define

Step by step

1. In the workflow editor, click **Add block**.
2. The form opens with the heading **Edit block**.
3. In the **Type** dropdown, choose the matching type, for example **Assembly**.
4. When you pick **Custom**, the **Custom type name** field appears below. Enter your own type name.
5. Click into **Name** and give the block a descriptive title, for example `Assembly step 1`.

What happens next

The type determines the default colour of the block on the canvas. In the next step, you enter the metrics.

Continue with Step 43 – Enter block metrics.

Related fields

- Create a workflow: Step 41
- Block metrics: Step 43
- Muda tags on a block: Step 45

Notes

- The type can be changed anytime via **Edit**. Already entered metrics remain.
- Types are visual only — they do not affect calculations.
- **Idle time** and **Transport** are conventionally non-value-adding and appear red in analysis.

Step 43 – Enter block metrics

What you see

Below **Name** and **Type**, the block form shows a list of metric fields. Each number describes one aspect of the block — times, quantities, or cost.

What you need to enter

Field	Type	Required	Unit	Default	Valid
Cycle time (C/T)	Number	—	Seconds	empty	> 0
Changeover time (C/O)	Number	—	Seconds	empty	≥ 0
Availability	Number	—	%	empty	0–100
Batch size	Number	—	Units	empty	> 0
Operators	Number	—	Count	empty	≥ 0
Planned time	Number	—	Seconds	empty	> 0
Actual time	Number	—	Seconds	empty	> 0
Cost (€)	Number	—	EUR	empty	≥ 0
Notes	Text area	—	—	empty	Free

Step by step

1. Stay in the block form and scroll below the type selection.
2. Click into **Cycle time (C/T)** and enter the average processing time in seconds, for example `45`.
3. Enter **Changeover time (C/O)** in seconds if relevant.
4. Enter **Availability** as a percent, for example `92` for 92 %.
5. Enter **Batch size** and **Operators** if relevant.
6. Optional: enter **Planned time**, **Actual time**, and **Cost (€)** for deeper analysis.
7. Finally, add a **Notes** entry if a detail matters.
8. Click **Save** at the bottom.

What happens next

The entered metrics feed the workflow summary and the timeline. A new block appears on the canvas.

Continue with Step 44 – Link a recording to a block.

Related fields

- Block type: Step 42
- Muda tags on a block: Step 45
- Arrange blocks on the canvas: Step 46

Notes

- All metric fields are optional. A block without numbers is still drawn, but appears grey in the timeline.
- Unit abbreviations are fixed: **s** for seconds, **min** for minutes, **%**, **pcs** for pieces.
- When you link a recording (see Step 44), **Cycle time** and **Actual time** fill automatically from the measurement data.

Step 44 – Link a recording to a block

What you see

At the bottom of the block form sits the **Link session** area. There you pick an existing recording and transfer its measurements directly onto the block.

What you need to enter

Field	Type	Required	Unit	Default	Valid
Linked session	Dropdown	—	—	**No session linked**	A saved recording

Buttons:

Button	Effect
Link session	Opens the list of recordings
Apply session time	Writes measured times into **Cycle time** and **Actual time**
Open sub value stream	Expands a nested workflow behind this block

Empty hint: **No session linked**.

Step by step

1. Scroll to the **Link session** area in the block form.
2. Click the dropdown and pick the desired recording from the list.
3. The row now shows the linked recording instead of the placeholder **No session linked**.
4. Click **Apply session time**. The fields **Cycle time** and **Actual time** fill with the values from the recording.
5. Click **Save** at the bottom.

What happens next

The block is now linked to the recording. Changes to the recording do **not** update the block automatically — only clicking **Apply session time** again refreshes the values.

Continue with Step 45 – Muda tags on a block.

Related fields

- Block metrics: Step 43
- Measure steps: Step 22
- Sub value stream (drill-down): same area, button **Open sub value stream**

Notes

- Without at least one saved recording, linking is disabled. Create a recording first (Step 9).
- A recording can be linked multiple times — the same measurement data can appear in several blocks.
- To unlink, select **No session linked** in the dropdown.

Step 45 – Muda tags on a block

What you see

In the block form, the **Waste types** section holds seven coloured tiles. Clicking toggles a muda tag on or off for the current block.

What you need to enter

Field	Type	Required	Unit	Default	Valid
Waiting	Tile (on/off)	—	—	off	on/off
Transport	Tile (on/off)	—	—	off	on/off
Motion	Tile (on/off)	—	—	off	on/off
Inventory	Tile (on/off)	—	—	off	on/off
Overproduction	Tile (on/off)	—	—	off	on/off
Over-processing	Tile (on/off)	—	—	off	on/off
Defects / Rework	Tile (on/off)	—	—	off	on/off

Step by step

1. Scroll to the **Waste types** section in the block form.
2. Click a tile that applies to the block, for example **Waiting**.
3. The tile highlights in colour and becomes active.
4. Repeat for more muda types. Multiple tags at once are allowed.
5. Click an active tile again to remove the tag.
6. Click **Save** at the bottom.

What happens next

The block appears on the canvas with the selected tags. In the summary, blocks with muda are counted under **With waste**.

Continue with Step 46 – Arrange blocks on the canvas.

Related fields

- Muda tags on a process step (recording): Step 24
- Muda diagram in analysis: Step 52
- Block metrics: Step 43

Notes

- The seven muda types are the same as step-level muda (Step 24) — but tags are kept per block.
- On the canvas, a coloured outline shows a block's muda state at a glance.
- The notes field belongs to the block in general (see Step 43), not to an individual muda tag.

Step 46 – Arrange blocks on the canvas

What you see

The workflow canvas shows all blocks as tiles with name, type colour, and metrics. Arrows connect the blocks in the process order. You move blocks via drag and drop or via hotkeys.

What you need to enter

No direct text input on the canvas. Arrangement is done via mouse or touch.

Canvas elements:

Element	Effect
Block tile	Shows name, type colour, cycle time. Click opens the edit form
Arrow connector	Shows the process flow between two blocks
Add block	Adds a new block (opens the form from Step 42)
Zoom slider (bottom right)	Zooms the canvas in or out
Drag handle	Grab the tile to move it

Step by step

1. Open the workflow on the analysis page.
2. Click **Add block** and create the first blocks (see Step 42 and Step 43).
3. To move a tile, click and drag it with the mouse or finger to the desired spot.
4. Arrow connectors adapt automatically.
5. Use the zoom slider at the bottom right to keep larger workflows visible.
6. Click a tile to reopen the block form and edit details.

What happens next

The arrangement is saved automatically. Below the canvas, the timeline appears — read it in the next step.

Continue with Step 47 – Read the timeline.

Related fields

- Add a block: Step 42
- Block metrics: Step 43
- Export a workflow: Step 48

Notes

- Moving tiles only changes visual arrangement, not process order. Order follows the connector arrows.
- On touch devices, you can pinch-zoom and pan with two fingers.
- To remove a block, click it and use **Delete block** in the form. The app asks **Really delete this block?**.

Step 47 – Read the timeline

What you see

Below the canvas, the **Timeline** shows blocks as bars in process order. Processing times are green, idle or wait times are red. On the right, the summary KPIs appear.

What you need to enter

Nothing — the timeline is display-only.

Timeline elements:

Element	Meaning
Green bar	**Processing time** per block
Red bar	**Idle / wait time** per block
Block name under the bar	Maps to the canvas block
Processing time (total, right)	Sum of all value-adding times
Idle / wait time (total, right)	Sum of all non-value-adding times
Lead time	Total from the first to the last block
Value ratio	Processing time / lead time, in percent

Additional summary KPIs above:

KPI	Meaning
Total planned	Sum of all **Planned time** fields
Total cycle time	Sum of all cycle times
Total cost	Sum of all cost fields
Blocks	Number of blocks in the workflow
With waste	Number of blocks with at least one muda tag

Step by step

1. Create or open a workflow with at least two blocks containing metrics.
2. Scroll below the canvas to the **Timeline**.
3. Read the bars from left to right — they mirror the order of your blocks.
4. Compare the green share (processing) with the red share (idle time).

5. Read **Lead time** and **Value ratio** on the right. A low percentage means a lot of time is lost in non-value-adding steps.

What happens next

You have a visual baseline for your process. Once the workflow is complete, you can export it.

Continue with Step 48 – Export a workflow.

Related fields

- Block metrics: Step 43
- Muda tags on a block: Step 45
- Analysis charts: Step 49

Notes

- The timeline is computed from block metric fields. If values are missing, bars stay grey.
- Idle-type blocks (**Idle time**) count fully as non-value-adding by convention, even without a number.
- The **Value ratio** is a guideline — it does not replace a detailed value analysis (see Step 53).

Step 48 – Export a workflow

What you see

Above the workflow editor, there is an **Export** button. It opens a menu with three output formats: image, PDF, and Excel. The browser saves the file directly to your device.

What you need to enter

No input. The export menu has three buttons:

Option	File format	Content
SVG / PNG	Image	Canvas visualization with blocks and connectors
PDF report	PDF	Canvas plus summary and timeline
Excel table	XLSX	Block data as a table — name, type, cycle time, actual time, cost, muda tags

Step by step

1. Open the workflow you want to export.
2. In the canvas area, click **Export** at the top.
3. Pick the format from the menu:
    - **SVG / PNG** for presentations and documentation.
    - **PDF report** for a full review including the timeline.
    - **Excel table** for further processing of block data.
4. The browser saves the file to your **Downloads** folder.

What happens next

The file sits on your device. You can share it, print it, or embed it into reports.

Continue with phase **Analysis and charts** — Step 49 – Open the analysis page.

Related fields

- Full data backup: Step 57
- PDF export of a recording: Step 60
- Create a workflow: Step 41

Notes

- Export is part of the **Premium** tier.

- The Excel file contains one row per block. Notes appear in their own column — long texts wrap to multiple lines.
- The PDF report uses the current canvas zoom — set the zoom before exporting.

Step 49 – Open the analysis page

What you see

The analysis page at `/analysis` groups all evaluation tools. You pick a recording at the top; below, the individual analysis sections appear as cards.

What you need to enter

Field	Type	Required	Unit	Default	Valid
Pick recording	Dropdown	—	—	First available recording	A saved recording

Sections on the analysis page:

Section	Content
Value stream analysis	Workflow editor with canvas and timeline
Custom charts	Freely configurable diagrams based on your recordings
Current / Target comparison	Bar chart of the saved calculator values
Muda analysis	Stacked bar chart of muda tags per step
Value analysis	Pie chart of value-adding / necessary / waste
Bottleneck analysis	List of the slowest steps
Takt comparison	Gauge for takt time vs. cycle time
Methods catalog	Built-in collection of improvement methods

Step by step

1. Click **Analysis** in the menu or go to `/analysis`.
2. Pick the recording you want to evaluate in the dropdown at the top.
3. Scroll the sections and click the card that interests you.
4. Each card opens its chart or tool inline on the same page.

What happens next

The chosen recording applies to every section until you pick another. All diagrams update automatically.

Continue with Step 50 – Create a custom chart.

Related fields

- Value stream analysis: Step 41

- Custom chart: Step 50
- Bottleneck analysis: Step 54

Notes

- Without a saved recording, the dropdown stays empty and diagrams are grey. Create a recording first.
- Sections are independent — you can use one without filling others.
- Some sections (e.g. value stream analysis) require the **Premium** tier. Pro users see them but cannot use them fully.

Step 50 – Create a custom chart

What you see

In the **Custom charts** section, clicking **+ Chart** opens a configuration dialog. You set type and axes there and pick which recordings feed the chart.

What you need to enter

Field	Type	Required	Unit	Default	Valid
Chart name	Text	Yes	—	**Chart 1**	Max 50 chars
Chart type	Dropdown	Yes	—	**Line**	Line, Bar, Donut, and more
X axis	Dropdown	Yes	—	**stepNr**	Step number, Step name, Recording index, and more
Y axis	Dropdown	Yes	—	**avgSec**	Average, Min, Max, Total cycle time, and more
Layout mode	Dropdown	—	—	**side-by-side**	overlay, side-by-side, stacked

Data selection filter:

Filter	Effect
All recordings	Include every recording
Recording checkboxes	Pick specific recordings

Buttons:

Button	Effect
Save	Creates the chart and shows it on the analysis page
Cancel	Closes the dialog with no change

Step by step

1. On the analysis page, click **+ Chart** in the **Custom charts** section.
2. The **Configure chart** dialog opens.
3. Enter a descriptive name in **Chart name**, e.g. `Step time trend`.
4. Pick a **Chart type**, e.g. **Line** for a trend.
5. Choose **X axis** and **Y axis** from the dropdowns.
6. Set **Layout mode** (e.g. **overlay** to stack multiple recordings on top of each other).
7. Under recordings, pick the entries you want or toggle **All recordings**.

8. Click **Save**.

What happens next

The chart appears directly in the **Custom charts** section and is stored permanently. You can edit or delete it later.

Continue with Step 51 – Current vs. target comparison.

Related fields

- Open the analysis page: Step 49
- Export a chart: Step 56
- Cycle measurement: Step 22

Notes

- An empty **Chart name** blocks saving — the field turns red.
- The chart is dynamic — new measurements flow in automatically as long as the matching recordings stay selected.
- Different **Chart types** fit different questions: **Line** for trends over time, **Bar** for individual values, **Donut** for shares.

Step 51 – Current vs. target comparison

What you see

The **Current → Target comparison** section shows the most important KPIs as a bar chart. For each KPI, two bars sit next to each other — one for the current state, one for the target state from the calculator.

What you need to enter

No input. Values come automatically from the condition calculator.

Compared KPIs (Production domain):

KPI	Unit
Takt time	Seconds
Cycle time	Seconds
OEE	%
Productivity	%
Scrap rate	%

In the **Administration** domain, **Takt time** is replaced by **Lead time**.

Legend colours:

Colour	Meaning
Blue	Current value
Green	Target value

Step by step

1. Open the analysis page `/analysis` and scroll to the **Current → Target comparison** section.
2. Pick the recording that is linked to the calculator.
3. The chart appears automatically. KPIs are on the X axis; values on the Y axis.
4. Hover over a bar to see the exact value in the tooltip.

What happens next

The comparison shows at a glance where the largest gaps between current and target sit.

Continue with Step 52 – Muda diagram.

Related fields

- Condition calculator: Step 28
- 14 target KPIs: Step 35
- Open the analysis page: Step 49

Notes

- The comparison requires the **Premium** tier (the calculator is locked in Free / Pro).
- If only the current state is filled in, the chart only shows blue bars.
- The chart shows the values of the currently loaded scenario. If you loaded a snapshot, the comparison reflects the snapshot state.

Step 52 – Muda diagram

What you see

The muda diagram shows one bar per process step. Each bar is split into up to seven segments — one per muda type. Segment height reflects the count or share of that type.

What you need to enter

No input. Bars come from the muda tags you set on steps.

Legend entries:

Muda type	Colour
Waiting	Red
Transport	Orange
Motion	Blue
Inventory	Purple
Overproduction	Yellow
Over-processing	Pink
Defects / Rework	Dark red

Below the diagram:

Element	Meaning
Summary	Count of all placed muda tags
Affected steps	How many steps carry at least one tag
High waste share (hint)	Appears when many steps have tags

Step by step

1. Open the analysis page and scroll to the **Muda analysis** section.
2. Pick the recording to examine at the top.
3. The diagram appears automatically. The legend on the right explains the colours.
4. Click a bar to see notes associated with that step.
5. Hover over a segment for a tooltip with the muda type and count.

What happens next

You see immediately which steps carry the most muda tags — those are the candidates for your next experiment.

Continue with Step 53 – Value analysis (pie chart).

Related fields

- Set muda tags on a step: Step 24
- Muda tags on a value stream block: Step 45
- Custom chart: Step 50

Notes

- Without muda tags, the diagram stays empty. Go into the recording and set tags on steps first.
- The legend is fixed and shows all seven types, even if only a few are used in the recording.
- With many steps, the diagram becomes scrollable. Use the browser zoom for an overview.

Step 53 – Value analysis (pie chart)

What you see

The **Value analysis** section shows a pie chart with three segments: **Value-adding**, **Necessary**, and **Waste**. The shares are based on the categories you set per step.

What you need to enter

Categories are set per step on the recording page (not in analysis). There, each step has a **Category** field with three options:

Category	Meaning	Pie colour
Value-adding	Step adds value to the product	Green
Necessary	Step is required but not value-adding (e.g. inspection)	Yellow
Waste	Step is avoidable (e.g. transport, waiting)	Red

The pie chart itself has no input fields — only hover tooltips.

Step by step

1. First, go into the recording and set a category per step (value-adding, necessary, waste).
2. Then open the analysis page and scroll to the **Value analysis** section.
3. Pick the recording at the top.
4. The pie chart shows the three shares as percent.
5. Hover a segment to see the number of steps and the total time.

What happens next

You see the share of real value creation in the entire process. Rule of thumb: the more green, the better.

Continue with Step 54 – Bottleneck analysis.

Related fields

- Set category per step: recording page (see Step 14)
- Muda diagram: Step 52
- Value stream timeline: Step 47

Notes

- Without set categories, the pie chart stays empty. The app then shows **No data**.

- The category is independent from muda tags. A step can be tagged as **Waste** and also carry muda tags.
- In the **Administration** domain, the category names are identical — only the examples differ.

Step 54 – Bottleneck analysis

What you see

The **Bottleneck analysis** section sorts all steps of the recording by average cycle time — the slowest at the top. Each entry has a horizontal bar; its length shows the time share.

What you need to enter

No input — sorting is automatic.

Columns per entry:

Column	Meaning
Rank	Position (1 = slowest step)
Step name	Name from the recording
Bar	Visualization of average time
Ø	Average time in seconds
Min	Minimum time in seconds
Max	Maximum time in seconds

Step by step

1. Open the analysis page and scroll to **Bottleneck analysis**.
2. Pick the recording at the top.
3. The list appears automatically. The top entry is your bottleneck.
4. Click an entry to jump directly to the matching step in the recording.

What happens next

You know the bottleneck. The next experiment should target exactly that one — an improvement elsewhere does not change the overall lead time.

Continue with Step 55 – Takt gauge.

Related fields

- Cycle measurement: Step 22
- Understand the fastest time: Step 23
- Coaching question 3 (obstacle): Step 27

Notes

- The analysis only considers measured cycles. Planned values or estimates are ignored.
- When two steps have the same duration, they are shown in recording order.
- A bottleneck is not always the slowest step — sometimes it is the most variable (high **Max** with low **Min**). Also check the gap between Min and Max.

Step 55 – Takt gauge

What you see

The **Takt comparison** section shows a speedometer-style gauge. The needle points to your cycle time in relation to takt time. Three coloured zones give an instant read.

What you need to enter

No input. Values come from the recording and the calculator.

Gauge elements:

Element	Meaning
Needle	Current cycle time (NWZZ or average)
Green zone	Cycle time is lower than takt time — enough time
Yellow zone	Cycle time is close to takt time — little buffer
Red zone	Cycle time exceeds takt time — bottleneck
Label **Takt time**	Computed from net working time / demand
Label **Cycle time**	From measurements or the calculator

Step by step

1. Open the analysis page and scroll to **Takt comparison**.
2. Pick the recording at the top.
3. The gauge appears with the current needle position.
4. Read the labels below the gauge — they state the exact takt time and current cycle time in seconds.
5. Green means you are on plan. Yellow means create buffer. Red means you need more capacity or a shorter cycle.

What happens next

You have a quick target-vs-actual view. If the needle sits in the green, you can refine the target condition there.

Continue with Step 56 – Export a chart.

Related fields

- Open the calculator: Step 28

- Target column: Step 34
- Bottleneck analysis: Step 54

Notes

- The gauge needs at least the takt time (from demand and working time in the calculator) and a measured cycle time (from the recording).
- If one of the two is missing, the gauge shows **No data**.
- The needle defaults to NWZZ (fastest measured time). You can switch to the average in the gauge menu.

Step 56 – Export a chart

What you see

Every chart on the analysis page has a small export icon at the top right. Clicking it opens a menu with the available formats. Files land in your device's downloads folder.

What you need to enter

No input. The menu offers three formats:

Option	File	Content
PNG	Image	Pixel screenshot of the chart
PDF	PDF	Chart plus title line, date, and recording info
CSV	Table	The underlying data points

Step by step

1. Scroll to the chart you want to export.
2. Click the export icon at the top right of the chart.
3. Pick the format from the menu:
    - **PNG** for a quick image in presentations.
    - **PDF** for reports with a title line.
    - **CSV** for further analysis in Excel or other tools.
4. The browser saves the file to your **Downloads** folder automatically.

What happens next

The file is ready for sharing or archiving. The chart stays in the app — the export is a copy.

Continue with phase **Data backup** — Step 57 – Create a backup.

Related fields

- Create a custom chart: Step 50
- Export a workflow: Step 48
- PDF export of a recording: Step 60

Notes

- Export is available from the **Pro** tier.

- The CSV file uses semicolon as the separator. German-locale Excel opens it correctly without extra steps.
- PNG is exported at the current on-screen resolution of the chart. For print quality, use PDF.

Step 57 – Create a backup

What you see

At the top right of the dashboard, you find the **Backup** button. One click creates a JSON file containing all your data and downloads it.

What you need to enter

No input. One click is enough.

Button:

Button	Effect
Backup	Creates a JSON file with recordings, steps, measurements, coaching reflections, calculator snapshots, value streams, and settings

The file name follows the pattern `leanshift-backup-YYYY-MM-DD.json`.

Step by step

1. Open the start page at `/`.
2. At the top right, click **Backup**.
3. The browser opens a download dialog or saves directly to the **Downloads** folder.
4. The file is named `leanshift-backup-YYYY-MM-DD.json`.

What happens next

The backup file sits on your device. Keep it in a safe place — e.g. in a cloud drive, on a USB stick, or attached to your password manager.

Continue with Step 58 – Restore a backup.

Related fields

- Restore a backup: Step 58
- Excel / CSV import: Step 59
- Delete all data: Step 61

Notes

- Creating a backup requires the **Pro** tier. Without Pro, clicking **Backup** redirects to the pricing page `/pricing`.
- The JSON file contains no images — only text data. It is small and good for regular backups.

- A backup is the **only** way to move data between devices. The app does not sync online.

Step 58 – Restore a backup

What you see

The **Restore** button opens your operating system's file picker. You choose a JSON file from a previous backup. Before applying, the app asks for confirmation.

What you need to enter

Field	Type	Required	Unit	Default	Valid
Backup file	File	Yes	—	—	Ends with `.json`, created by **Backup**

Dialogs:

Dialog	Effect
File picker	Shows all `.json` files in the selected folder
All existing data will be overwritten. Continue?	Confirmation — clicking **OK** replaces all current data

Success message: **Backup restored: {{X}} recordings, {{Y}} steps, {{Z}} scenarios**.

Step by step

1. Open the start page at `/`.
2. At the top right, click **Restore**.
3. In the file picker, pick the backup file, e.g. `leanshift-backup-2026-04-13.json`.
4. Confirm the hint **All existing data will be overwritten. Continue?** with **OK**.
5. The app applies the backup and reloads the start page automatically.
6. The success message shows the number of restored recordings, steps, and scenarios.

What happens next

All data from the backup is active. Previous data is **irretrievably** overwritten — unless you saved it first.

Continue with Step 59 – Import Excel / CSV.

Related fields

- Create a backup: Step 57
- Excel / CSV import (additive): Step 59
- Delete all data (GDPR): Step 61

Notes

- Restoring requires the **Pro** tier.
- This action **replaces** all existing data. If you only want to load individual recordings, use the Excel / CSV import.
- If the file is damaged, the app shows **Restore failed: {{reason}}** and leaves your existing data untouched.

Step 59 – Import Excel / CSV

What you see

The **Import** button accepts Excel files (.xlsx, .xlsm, .xls), CSV files (.csv), and JSON files. Depending on the type, the app either creates a new recording or adds several recordings to the existing list.

What you need to enter

Field	Type	Required	Unit	Default	Valid
Import file	File	Yes	—	—	`.xlsx` , `.xlsm` , `.xls` , `.csv` , `.json`

Processing logic:

File	What happens
`.xlsx` / `.xls` / `.xlsm`	Creates **one new recording** from the Excel file and opens it
`.csv`	Creates **one new recording** from the CSV file
`.json`	Imports **multiple recordings** additively — existing data is kept

Success messages:

Message	Meaning
{{count}} recording imported	One recording was created
{{count}} recordings imported	Several recordings were created
Import failed: {{reason}}	The file could not be read

Step by step

1. Open the start page at `/` .
2. At the top right, click **Import**.
3. In the file picker, choose the source file (Excel, CSV, or JSON).
4. The app checks the format and starts importing.
5. For Excel or CSV, the newly created recording opens directly. For JSON, the start page reloads after import.
6. The toast shows the number of imported recordings.

What happens next

The new data appears in the recordings list. Treat them like any other recording — measure, edit, analyze.

Continue with Step 60 – Export a recording as PDF.

Related fields

- Restore a backup (replaces everything): Step 58
- Export as Excel / CSV / PDF: Step 60
- Dashboard overview: Step 8

Notes

- Import requires the **Pro** tier.
- Excel files must follow the Leanshift structure (sheet `Process step recording` with columns for step, average, cycles). A file exported from another tool is not accepted.
- JSON import is **additive** — repeated imports add new recordings without deleting the existing ones.

Step 60 – Export a recording as PDF

What you see

On the recording page, the **Export** button opens a dialog with four output formats. The dialog title shows how many steps the recording has and which process it belongs to.

What you need to enter

No input. The dialog has four buttons:

Option	File format	Content
Excel (.xlsx)	XLSX	All data — measurements, muda, coaching, calculator, value stream
CSV (.csv)	CSV	Measurements only — re-importable as CSV or Excel
JSON (.json)	JSON	All data — re-importable via **Import**
PDF / Print	PDF	Report for printing or saving as PDF

Dialog subtitle: **{{count}} steps from "{{process}}"**.

Additional options in the PDF dialog:

Button	Effect
Print / Save as PDF	Opens the browser print dialog
Close	Closes the dialog without exporting

Step by step

1. Open a recording via the recordings list on the dashboard.
2. Click the **Export** button at the top (icon with a down arrow).
3. The **Export** dialog opens.
4. Click **PDF / Print**.
5. The browser opens its print dialog. Choose **Save as PDF** and confirm.
6. The PDF file lands in the downloads folder.

What happens next

The PDF contains the full report — measurements, average, muda summary, and coaching entries if present. You can archive, share, or print it.

Continue with Step 61 – Delete all data (GDPR).

Related fields

- Create a backup: Step 57
- Export a chart individually: Step 56
- Export a workflow: Step 48

Notes

- Export requires the **Pro** tier.
- The Excel format contains **all** recording data in a workbook with multiple sheets (measurements, muda, coaching, calculator, value stream). The CSV only contains measurements.
- For read-only sharing (management, customers), **PDF** is best. For further processing, use **Excel**.

Step 61 – Delete all data (GDPR)

What you see

At the route `/privacy`, the bottom area holds the section **Delete all data (GDPR Art. 17)**. Clicking the red button removes all locally stored data permanently.

What you need to enter

No input. Just confirmation.

Page elements:

Element	Meaning
Heading **Delete all data (GDPR Art. 17)**	Start of the delete area
Description text	Explains which data will be deleted
Delete all data (button)	Starts the delete flow
Dialog **Delete all data permanently? This cannot be undone.**	Final confirmation
Status display **Deleting…**	Shown during the operation
Error **Error deleting the data. Please try again.**	If the delete operation fails

Step by step

1. Open the privacy page via the footer or at `/privacy`.
2. Scroll down to **Delete all data (GDPR Art. 17)**.
3. Read the description — it lists the affected data (recordings, steps, calculator snapshots, templates, coaching reflections, settings).
4. Click **Delete all data**.
5. Confirm the dialog **Delete all data permanently? This cannot be undone.** with **OK**.
6. The app shows **Deleting…**, removes all data, and reloads itself.

What happens next

All content is gone — recordings, calculator snapshots, coaching reflections, value streams. The app starts as after a fresh install with onboarding.

Continue with phase **For decision makers** — Step 62 – Tier comparison.

Related fields

- Create a backup (before deleting): Step 57

- Deactivate license: Step 64

Notes

- Deletion is **final and irreversible**. Without a backup, nothing can be recovered.
- License activation is **not** wiped. To also remove it, go to `/pricing` first and click **Deactivate license**.
- GDPR Art. 17 grants you the right to erasure. The app fulfils that fully locally — there are no cloud copies that would need to be removed elsewhere.

Step 62 – Tier comparison

What you see

At `/pricing`, three cards sit side by side: **Free**, **Pro**, and **Premium**. Each card lists its features and shows a price indicator at the top.

What you need to enter

Nothing. The page is an overview. Activation runs through Step 4.

Feature overview per tier:

Feature	Free	Pro (€399/year)	Premium (€899/year)
Stopwatch and time measurement	Yes	Yes	Yes
Coaching questions (individual)	Yes	Yes	Yes
Onboarding and help	Yes	Yes	Yes
Offline-capable (PWA)	Yes	Yes	Yes
Process step recording and analysis	—	Yes	Yes
Muda analysis (7 types)	—	Yes	Yes
Coaching reflections and history	—	Yes	Yes
Excel / CSV / PDF export	—	Yes	Yes
Snapshots and scenarios	—	Yes	Yes
Condition calculator (14 KPIs)	—	—	Yes
Investment calculator and ROI	—	—	Yes
Value stream analysis	—	—	Yes

Card subtitles:

Tier	Subtitle
Pro	**Operational Tools**
Premium	**Strategic Analysis**

Buttons per card:

Button	When visible
Go to Dashboard	Free card, if you want to start without buying

Button	When visible
Buy now	Pro or Premium card, opens the checkout link
Activate license	Pro or Premium card, opens the activation dialog

Step by step

1. Open **Pricing** in the menu or go to `/pricing`.
2. Read the three cards left to right. Free on the left, Premium on the right.
3. Compare feature lists. Missing features are hidden, not struck out.
4. Decide which tier fits your use case.

What happens next

After deciding, buy the license or activate an existing key.

Continue with Step 63 – Pricing and validity or go directly to Step 4 – Activate license.

Related fields

- Activate license: Step 4
- Pricing and validity: Step 63
- License on a new device: Step 64

Notes

- Pro and Premium activation is per device. For multiple devices, buy multiple keys or deactivate the key on the old device before activating on the new one.
- An upgrade from Pro to Premium happens via a new purchase and a new activation. The app offers no in-dialog upgrade path.
- All prices are net. The page shows **Annual license, 365 days from activation. All prices exclude applicable taxes.**

Step 63 – Pricing and validity

What you see

On the pricing page, each card shows a fixed price. For Pro, a strike-through price is also visible. The footer under the cards states the tax and runtime hints.

What you need to enter

No input. Read only.

Prices (per the app):

Tier	Price	Strike-through	Validity
Free	Free	—	Forever
Pro	**€399**	**€599** (struck through)	365 days from activation
Premium	**€899**	—	365 days from activation

Footer on the page:

> **Annual license, 365 days from activation. All prices exclude applicable taxes.**

Labels on an active card:

Label	Meaning
Current Plan	You are currently here (shows on Free without a license)
Active	Your license is active and the tier is unlocked
Recommended	Highlight on the Pro card when nothing is purchased yet

Step by step

1. Go to **Pricing** in the menu or open `/pricing`.
2. Read the price in each card right below the heading.
3. For Pro, notice the strike-through price — it reflects the previous list price.
4. Scroll to the footer for tax and runtime details.
5. Compare the price to your planned deployment (devices, employees).

What happens next

After the pricing check, buy the license or activate an existing key.

Continue with Step 64 – License on a new device.

Related fields

- Tier comparison: Step 62
- Activate license: Step 4
- License errors: Step 67

Notes

- Prices are driven by i18n text in the app. Current promotions may differ — always check the live page.
- Runtime starts **at activation**, not at purchase. You can keep the key until you want to use it.
- After 365 days, your data is preserved. Pro or Premium features lock until you renew.

Step 64 – License on a new device

What you see

To use a license on a new device, first deactivate it on the old one and then activate it on the new one. Both steps run through `/pricing`.

What you need to enter

Field	Type	Required	Unit	Default	Valid
License key (new device)	Text	Yes	—	—	Same key as on the old device

Buttons on the Pro or Premium card:

Device	Button	Effect
Old device (active license)	**Deactivate license**	Releases the key and locks functions on this device
New device (no license)	**Activate license**	Opens the dialog to paste the key
Deactivation confirmation	—	Shows **Deactivate license? Your features will be deactivated. You can then use the key on another device.**

Step by step

1. On the old device, open `/pricing`.
2. On the active card, click **Deactivate license** at the bottom.
3. Confirm the dialog **Deactivate license?** with **Deactivate**.
4. Wait until **Deactivating…** disappears and the card again shows **Activate license**.
5. Switch to the new device and open `/pricing`.
6. On the Pro or Premium card, click **Activate license**.
7. Paste your key into **Paste your license code here…** and click **Activate**.
8. After a brief check, the card shows the **Active** badge.

What happens next

The old device now runs without a license (Free tier). The new device has all features of the purchased tier.

Continue with Step 65 – Roll-out in the company.

Related fields

- Activate license (general): Step 4

- Tier comparison: Step 62
- License errors: Step 67

Notes

- Your data stays on the old device, even with the license deactivated. You can still read it — only Pro or Premium actions are locked.
- On the new device, **no data** is present automatically. Move it via backup (see Step 57 and Step 58).
- If activation on the new device fails, check whether deactivation on the old one actually completed. A key is active on only one device at a time.

Step 65 – Roll-out in the company

What you see

There is no dedicated screen for a structured roll-out — the flow combines existing steps. This chapter orders them into three phases.

What you need to enter

No new inputs. The roll-out uses these app functions in this order:

Phase	Action	Manual step
1 — Pilot	Install the app on one device	01, 02, or 03
1 — Pilot	Activate license	04
1 — Pilot	Create the first recording	09
1 — Pilot	Run a coaching cycle	10 through 39
2 — Team	Create a backup of pilot data	57
2 — Team	Buy and activate more licenses	62, 4
2 — Team	Restore the backup on team devices or load templates	58, 15
3 — Company	Regular coaching reflections per team	40
3 — Company	Company-wide reporting via export	56, 60

Step by step

1. **Pilot**: install the app on one device, activate the license, run a complete coaching cycle (steps 10 through 39) with a team. Duration: 1–2 weeks.
2. **Team**: create a backup of the pilot data. Buy additional licenses for more devices. Restore the backup or load the templates you created.
3. **Company**: unify KPIs via the coaching history. Export reports (PDF / Excel) and share with management.

What happens next

The app is in use. Coaching history grows per team, templates become a standard. Iterate the roll-out through regular coaching cycles.

Continue with Step 66 – App doesn't start in case something breaks.

Related fields

- Activate license: Step 4
- Backup and restore: Step 57, Step 58
- Load template: Step 15

Notes

- Leanshift does **not** sync between devices. For central reporting, use Excel or JSON export and aggregate outside the app.
- For pilot phases, Free is often enough. Decide after the pilot whether Pro or Premium fits.
- Pro and Premium are annual licenses — plan renewal in time before the 365 days end.

Step 66 – App doesn't start

What you see

When the app doesn't start, you either see a white screen or the error boundary dialog **Something went wrong**. The dialog offers two recovery paths and a button for diagnostic details.

What you need to enter

No input. Buttons only.

Error dialog elements:

Button / element	Effect
Something went wrong (title)	Reports the general error
Retry	Restarts the app without reload
Reload page	Performs a hard page reload
Show details	Reveals the technical error message
Hide details	Closes the technical view

Step by step

1. Click **Retry** first. Often that is enough.
2. If the error persists, click **Reload page**. The app reloads completely.
3. If still broken, open your browser's developer tools (F12 or Ctrl+Shift+I) and pick **Clear cache and refresh** in **Application**.
4. On installed PWA: uninstall and reinstall the app (see Step 1). Your IndexedDB data is preserved unless the browser clears it along with the cache.
5. On APK or EXE: restart the device and try again. If the error remains, reinstall from the installer.

What happens next

After a successful restart, the app is ready again. Your data lives locally in the database — a restart does not delete it.

Continue with Step 67 – License errors if the license reports an issue after start.

Related fields

- Reinstall the app: Step 1
- Back up before fixing: Step 57
- Contact support: Step 71

Notes

- A white screen without a dialog can indicate an incomplete download. Hard-reload (Ctrl+F5 in the browser).
- The **Details** button shows the stack trace. When contacting support, copy that text into your message — it speeds up diagnosis.
- Before reinstalling, create a backup if you can. The data lives in the browser database and can, in rare cases, be cleared along with the browser cache.

Step 67 – License errors

What you see

When license check fails, the pricing page shows a status or error indicator. The message differs depending on the situation.

What you need to enter

No new input. Decide by message:

Message	Meaning	Recommendation
Please enter a valid license key.	The field is empty or has invalid characters	Copy the key cleanly from the order email
Activation failed.	Server rejected the key	Check connection, try again later
Pro version required	You use Free but try to open a Pro feature	Step 4 – Activate license
This analysis is available in the Pro version.	Some analysis sections require Pro	Activate Pro or skip that feature

Status lines on the license card:

Status	Meaning
Active	License valid, all features unlocked
grace	Just after expiry — features still active
expired	License expired — features locked
inactive	License has been deactivated

Step by step

1. Go to `/pricing` and read the status line of the Pro or Premium card.
2. On **Activation failed**: copy the key again from the order email (including hyphens), paste it into the activation dialog, and click **Activate**.
3. On **grace** or **expired**: buy a new license via **Buy now** or renew through your vendor.
4. On **inactive**: the license was reactivated on another device. Deactivate it there and activate it on the desired device (see Step 64).
5. If the key should already be active but the app considers it invalid, check device time and date — a wrong system clock can break verification.

What happens next

After successful activation, the card shows **Active** and Pro or Premium features are unlocked.

Continue with Step 68 – Import fails.

Related fields

- Activate license: Step 4
- License on a new device: Step 64
- Contact support: Step 71

Notes

- License check needs an internet connection. Without one, the app runs in a limited offline mode with the last successful status values.
- Copy-paste from an HTML mail can carry invisible characters. If activation keeps failing, type the key by hand.
- If nothing helps, contact support (Step 71) and quote the exact status message from the app.

Step 68 – Import fails

What you see

A failed import appears as a red toast at the bottom. The rest of the app remains usable — no data loss; the existing list stays unchanged.

What you need to enter

No new input. Decide by message:

Message	Likely cause	Recommendation
Import failed: invalid format	File isn't a valid Leanshift structure	Check file extension and content; JSON: backup from Leanshift; Excel: exported from Leanshift
Restore failed: {{reason}}	JSON backup corrupted or from another version	Use a newer backup or contact support
{{count}} recording imported with count=0	File was empty	Check whether the file contains the expected data

Step by step

1. Read the exact toast. The cause follows the colon.
2. Open the file in Excel or a text editor for a quick check:
    - Excel: is there a sheet named **Process step recording**?
    - CSV: is the separator semicolon?
    - JSON: do you see keys **sessions**, **steps**?
3. For Excel errors: re-export the data from Leanshift (Step 60) and import the generated file as a test.
4. For JSON errors: open the file in a JSON validator (online or in an editor) and check the structure.
5. If the file is technically fine but the app rejects it, create a backup from a smaller recording and compare the structure.

What happens next

After a successful import, the new recording appears in the list and the app shows **{{count}} recording imported**.

Continue with Step 69 – Stopwatch jumps.

Related fields

- Create a backup: Step 57
- Import Excel / CSV: Step 59
- Export a recording: Step 60

Notes

- Excel exports from other tools (e.g. MES systems) often cannot be imported. The app expects the Leanshift-specific sheet layout.
- Very large files (> 20 MB) can cause the browser to abort the import. Split into several smaller backups.
- If import keeps failing, use support (Step 71) and attach the file to your message — strip the data to anonymized content first.

Step 69 – Stopwatch jumps

What you see

A jump in the time display means the app was in the background and catches up the elapsed time when you return. The measurement itself is correct — only the display paused briefly.

What you need to enter

Nothing. But you can take steps to avoid the jump.

Possible causes:

Cause	Effect
Browser tab in background	Browser throttles JavaScript timers
Screen turns off (mobile)	OS pauses the app
Power-saving mode	Reduced performance
Another app in foreground (PWA / APK)	Background throttling

Step by step

1. While using the stopwatch actively, keep the browser tab and device in the foreground.
2. On mobile: set a longer screen timeout under **Settings** → **Display**.
3. On mobile: disable battery optimization for Leanshift (Android: **Settings** → **Apps** → **Leanshift** → **Battery**).
4. If the jump still happens, correct the individual measurement — the app captured the time despite the jump; you can adjust it manually by opening the recording.
5. For long measurements over hours, use the desktop version (EXE) — it is not affected by browser throttling.

What happens next

With foreground mode or the desktop version, jumps should disappear.

Continue with Step 70 – Missing data.

Related fields

- Use the stopwatch: Step 19
- Cycle measurement: Step 22
- Desktop app: Step 3

Notes

- The app uses the browser's **Performance timer** — robust, but not immune to background throttling.
- Display jumps cause **no data loss** — the stored time is the actually elapsed one.
- For background-only measurements, use a separate physical timer and transfer the time manually.

Step 70 – Missing data

What you see

When all or some recordings are missing, the cause is usually not the app but local storage in the browser. Data is lost when the browser cache, cookies, or application data have been cleared.

What you need to enter

No immediate input. Diagnostic steps:

Diagnosis	How to check
Different profile or incognito	Are you in the same browser profile as before?
Browser cache cleared	Did you use **Clear browsing data**?
Different browser	Did you open Chrome instead of Edge (or vice versa)?
Privacy extension	A privacy extension may clear IndexedDB on tab close
Different device	Data is stored locally per device

Last resort — restore a backup:

Step	Prerequisite
Find backup file	You created a backup before (Step 57)
Restore backup	App open, **Restore** button (Step 58)

Step by step

1. First, check that you are in the same browser profile and on the same device as before.
2. Open developer tools (F12) and go to **Application** → **IndexedDB** → **kata-app**. If databases are visible there, the data is still technically present — you just can't see it. Hard-reload with Ctrl+F5.
3. If IndexedDB is empty, the data was deleted. Look for a backup file (`leanshift-backup-YYYY-MM-DD.json`).
4. On the dashboard, click **Restore** and select the backup.
5. Without a backup, the data is unrecoverable. Start backing up regularly from now on.

What happens next

With a backup, all recordings, reflections, and snapshots return. Without a backup, recovery is not possible — the app does not sync to a cloud.

Continue with Step 71 – Contact support if a backup does not help either.

Related fields

- Create a backup: Step 57
- Restore a backup: Step 58
- Reinstall the app: Step 1

Notes

- IndexedDB data is **not** part of cookies — clearing cookies usually keeps the data. Only **Site data** or **Application storage** wipes the app database.
- Private / incognito mode does not persist data. Never use private mode for the app.
- Schedule regular backups (e.g. weekly). Store the file outside the browser.

Step 71 – Contact support

What you see

In the app header, you find the feedback icon (speech bubble). Clicking it opens the feedback dialog with star rating and comment field. That is the direct path to support.

What you need to enter

Field	Type	Required	Unit	Default	Valid
Rating	Stars (1 to 5)	—	—	empty	1–5
Comment (optional)	Text area	—	—	empty	Free text

Dialog buttons:

Button	Effect
Submit	Sends the feedback and shows **Thanks for your feedback!**
Close	Closes the dialog without sending

Step by step

1. Click the feedback icon (speech bubble) at the top right of the header.
2. The **Feedback** dialog opens.
3. Set a star rating from 1 to 5.
4. Enter your concern or the error in the comment field. Example: `App fails to start on Edge after the latest update. Stack trace: ...`
5. Click **Submit**. The confirmation **Thanks for your feedback!** appears.

What happens next

Support reaches out if you need a reply — replies go to the email address linked to your license purchase (if applicable).

Congratulations — you have reached the end of the manual.

Related fields

- App doesn't start: Step 66
- License errors: Step 67
- Missing data: Step 70

Notes

- The feedback function is available in every tier (Free, Pro, Premium).
- Describe the problem as concretely as possible: which step? which message? which browser or OS? which tier?
- Provide personal data only when expecting a reply. General feedback (praise or anonymous bug reports) does not need contact details.
- For urgent license problems, contact the vendor you bought the license from directly.