OPERATE. UNDERSTAND. VERIFY.

# Service Manager User Handbook

## Uptime Control 2.0.0-alpha.1

Detailed procedures, clear responsibilities and traceable checks.

Edition 25 November 2026
Linux x86_64 + Docker | V2 pilot documentation

No real customer data in illustrations. Usage rights follow the separate agreement.

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# 01 Scope and your route through V2

This edition describes 2.0.0-alpha.1 using local source code and pilot evidence dated 21/22 November 2026. Documentation date: 25 November 2026. This is a pilot build; a manual does not constitute production acceptance. Existing core functions and the new workflows are explained together.

1. Sign in with your personal account and second factor. Check your identity, site and assigned machines.

2. Technicians start with the guided intervention. Service managers configure procedures and handle open cases. Warehouse staff use the inventory workspace.

3. Practise only on an explicitly approved training site. Illustrations contain synthetic training data, not a customer installation.

4. After each posting, check the confirmation and the stored result. Completing a form is not the same as saving it.

The previous role guides are included and extended with V2 chapters. Older screenshots illustrate core functions; V2 screenshots were captured during the pilot on 21/22 November 2026. They document that build, not a new operational acceptance performed today.

## Language and screen labels

The service workflow supports German and English. The warehouse and procedure editor retain German labels in this build. English instructions therefore also give the actual German control names. Free text is not automatically translated.

# 02 Account, MFA and session: practical walkthrough

## Before signing in

Use the address supplied by your administrator and check the hostname. Do not bypass certificate warnings on a real installation. The synthetic addresses in screenshots are not customer login addresses.

1. Open the application in your supported browser. Follow its sign-in redirect to the organisation's identity service.

2. Enter your personal username and password. Do not use a colleague's account, even for an urgent repair.

3. If prompted to change an initial password, choose a unique password that satisfies the displayed policy. Store it through your approved password-management process.

4. If authenticator enrolment is required, use your approved authenticator, scan the displayed enrolment code and enter its current one-time code. Treat the enrolment secret as a credential; never include it in a service report or support screenshot.

5. At later sign-ins, enter the current code. If rejected, check the device clock and wait for a fresh code before retrying. Repeated guesses can make access recovery harder.

6. Confirm the identity shown in the application. Check the machine or airport scope before entering any data.

7. Select English where necessary. Internal and external technicians may land directly in the five-step service workspace rather than the analysis dashboard.

8. When finished, use Sign out. On shared devices, wait for confirmation and close the browser session. An unconfirmed sign-out message means that you must retry; closing a tab alone is not proof of server-side sign-out.

## Lost authenticator or changed phone

Contact the administrator through a known route. Supply your account identifier, not your password or a live one-time code. The administrator must verify your identity before resetting MFA. A reset can end existing sessions and require new enrolment. Do not ask a colleague to submit work under their name while you recover access.

## Expired session during work

If the application says the session expired or access was revoked, sign in again. Check whether a previous save received confirmation before recreating it. A locally retained form is not a guarantee that the server stored it. Verify the final record reference and state.

## Success check

You can identify your signed-in account, permitted scope and intended task. If the expected machine is absent, request a scope correction; do not choose a similarly named machine to proceed.

## Additional navigation and account notes

This user manual covers the V2 pilot edition; established core workflows are retained from the V1 manuals. Linux with Docker is the server platform; users work in a browser. The service and ticket module is enabled in the documented edition; individual role and scope permissions still apply.

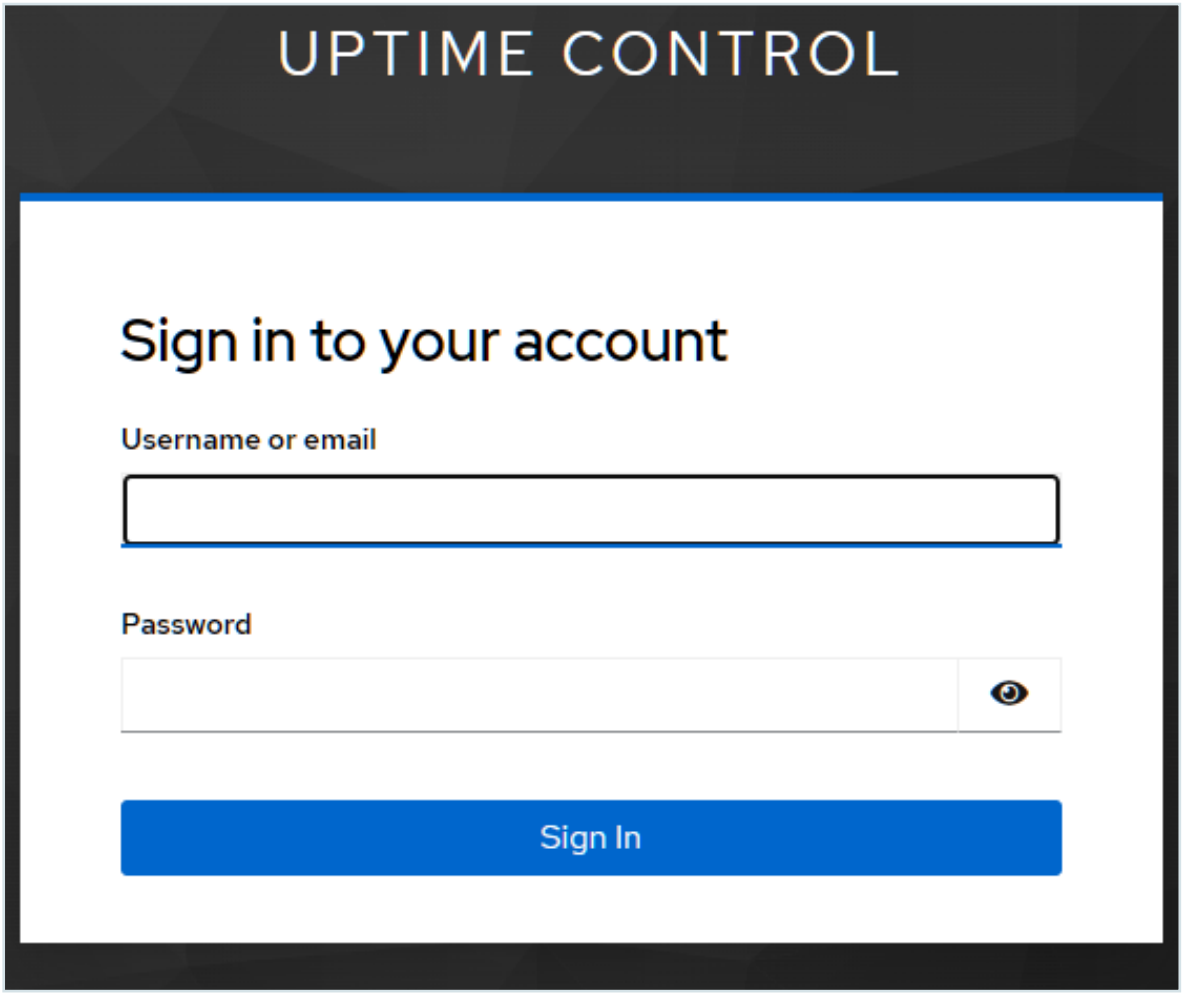
Open only the operator-provided HTTPS address. Use your personal account. The first administrator login in this installation package requires one-time-code enrolment. Scan the QR code only with your own authenticator app, confirm the current code, then sign in again. Do not retain or send pictures of the QR secret.

If a code is rejected, verify automatic phone time, wait for the next code and retry. Contact the designated administrator if the factor is lost. Browser and server clocks may differ; business day boundaries use the airport timezone.

After login, check your name, role and airport/machine scope. An account without an appropriate assignment has no business access. An empty screen after a new installation may be correct: no sample airports or customer records are created automatically.

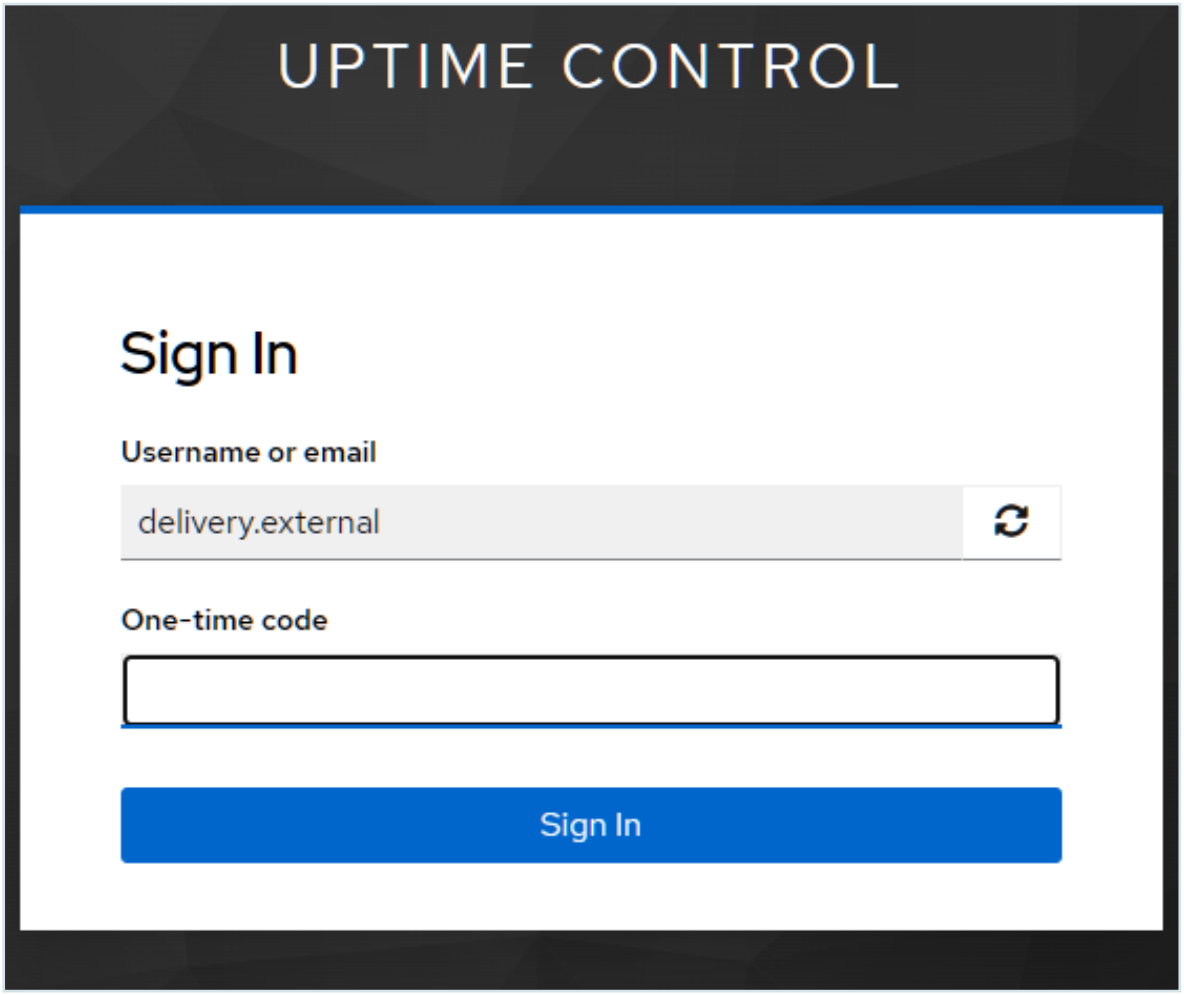
Before saving, check object, period, timezone, content and change reason. Wait for an unambiguous response. After a connection interruption, inspect the list or archive before creating another record. Sign out when finished, especially on shared devices.

**Figure 1 | Personal sign-in: use the address and account supplied by your administrator.**




Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

**Figure 2 | MFA challenge: enter the current code from your own authenticator; never share it.**




Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

# 03 Home page and analysis

## Interpret indicators correctly

First select the month or permitted period. Dashboard requests and report periods are limited to 366 local calendar days. Future months do not replace missing operating data. Check data status and the number of calculated machines before interpreting a total.

Overall uptime is weighted by statistical operating time. It is not an arithmetic average of the displayed machine percentages. Machines below target, chargeable downtime and cause breakdowns answer different questions. Missing data must not be interpreted as fault-free operation.

1. Open the required airport from the overview or airport list.

2. Select a machine. Check serial number, target, operating time, downtime and excluded maintenance.

3. Open a local calendar day. Compare its time basis, grace allowance and service events.

4. Open the individual service event behind an anomaly. Read its original interval, daily contribution, revision, incident description and action.

5. Use the return navigation to go back to the machine and airport. Check the period whenever you change filters.

## Contractual and measured availability

Contractual uptime uses effective contract rules and assigned service events. The selected contractual basis can be the theoretical weekly operating schedule or actual operating time from machine data. Selecting the basis is an administrative contract decision, not an ad hoc choice by a report reader.

Measured operational availability from a Scarabee XLSX workbook is a separate indicator. A valid comparison uses the same local machine days. The screen shows day coverage, hour coverage and comparison status. Incomplete or unsuitable coverage prevents a misleadingly precise delta.

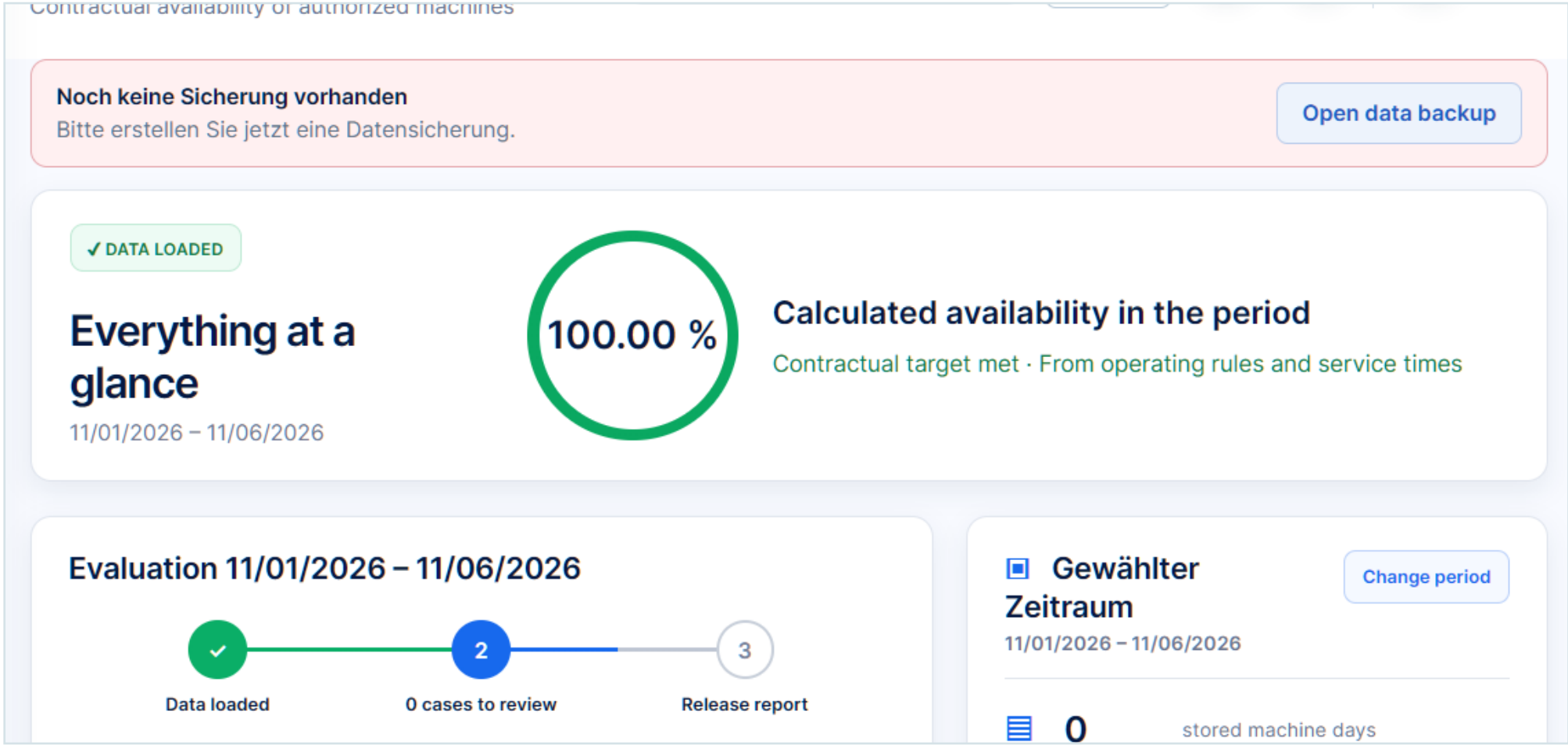
If day coverage is complete but hour coverage falls outside 99.5 to 100.5 percent, the difference remains visible as an indicative value because the denominators differ. Percentage points describe the difference between percentages, not a relative percentage change. Never compare only the two headline values.

## Process review cases

Review cases can concern missing measurements, machines that cannot be calculated or validation problems. Authorised users open the area, filter status, priority and overdue state, claim the appropriate case and inspect the underlying records. Completion is stored as a new revision. Read-only users do not change cases or trigger case creation by viewing data.

Resolve the substantive issue or document the supported clarification. Do not close a case merely to enable report release. Relevant open review cases block period closure and official release. Ticket evidence reconciliation and general review cases are related but represent separate screens and steps.

**Figure 3 | Home page and analysis: actual manager role view with synthetic data.**




Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

# 04 Service records and imports

## Service archive and corrections

Open the service archive, select airport and period, and search by serial number, machine, incident text, external reference or service-event ID. The selected view may require month and year or a specific search period. A search period cannot exceed 366 days. “Reset” clears search filters; it does not reset operating records.

Read-only roles can inspect evidence without editing it. The responsible service manager can use “Open / correct” or the correction route on the ticket. A correction creates a new version with a reason. For ticket-related records, follow it with the explicit reconciliation procedure in the service management chapter. Previous versions and released reports are not silently overwritten.

## Validate and import service CSV

Administrators, responsible service departments and internal technicians may import service CSV within their scope. External technicians and auditors may not. Use the agreed profile and exact serial numbers. The canonical UptimeServiceCsvV1 profile supports UTF-8, comma or semicolon delimiters, up to 1,000,000 bytes and 5,000 data rows.

Fields are ExternalReference, SerialNumber, Category, StartUtc, EndUtc, WhatHappened, ActionTaken and RestorationStatus. ExternalReference is optional; the other columns are required. ISO timestamps with Z or an explicit UTC offset avoid ambiguity. Category accepts MachineFault, OperatorError, PassengerInterference, ThirdPartyFault or ScheduledMaintenance. RestorationStatus accepts Restored, ProvisionallyRestored, StillOutOfService or FollowUpRequired.

1. Select the unchanged source file and suitable profile. Run “Validate file”.

2. Read totals and row results. Check assignment, interval, category and warnings. Preview does not create service events.

3. Resolve blocked rows. If you change the source, generate a new preview.

4. Import only the validated file. Only eligible rows create events; excluded rows remain traceable within the batch.

5. Check the confirmation and resulting records. A changed profile or changed file requires a new preview.

An identical replay should not duplicate source rows. This is not a reason to reimport uncontrolled files with altered references. The original file, profile version, checksum and source rows remain available as evidence.

## Import measured machine days from XLSX

In 02.15.1 this route is labelled “Legacy machine workbook - old data source” and is retained for existing historical and evidential data. Use the operational-hours CSV in the following section for new actual operating times.

ScarabeeOperationalAvailabilityV1 reads worksheets whose names begin with “Oa - Lane ”. The first five headings are Lane, Date, Actual Operating Time, Relevant downtime and Operational availability. The full lane identifier or serial number must unambiguously match an authorised machine. A short numeric suffix is not automatically mapped to a similarly named machine.

Date is an Excel date and durations are fractions of an Excel day. Operating time must not exceed 30 hours; relevant downtime must be between zero and operating time; availability must be between zero and one. Formula cells need cached calculated values. Recalculate the workbook in its spreadsheet application when necessary, then validate again.

1. Open Machine data and select the XLSX file.

2. Generate the preview. Check worksheet, source row, lane and date.

3. Ready means importable; AlreadyStored means identical existing values; Ignored covers lanes explicitly marked unused; Review requires clarification.

4. Commit ready values using the same file and profile version. Conflicting existing machine days are not silently overwritten.

5. Check totals and inspect the machine in the correct month. Measurement import does not replace service records or automatically release reports.

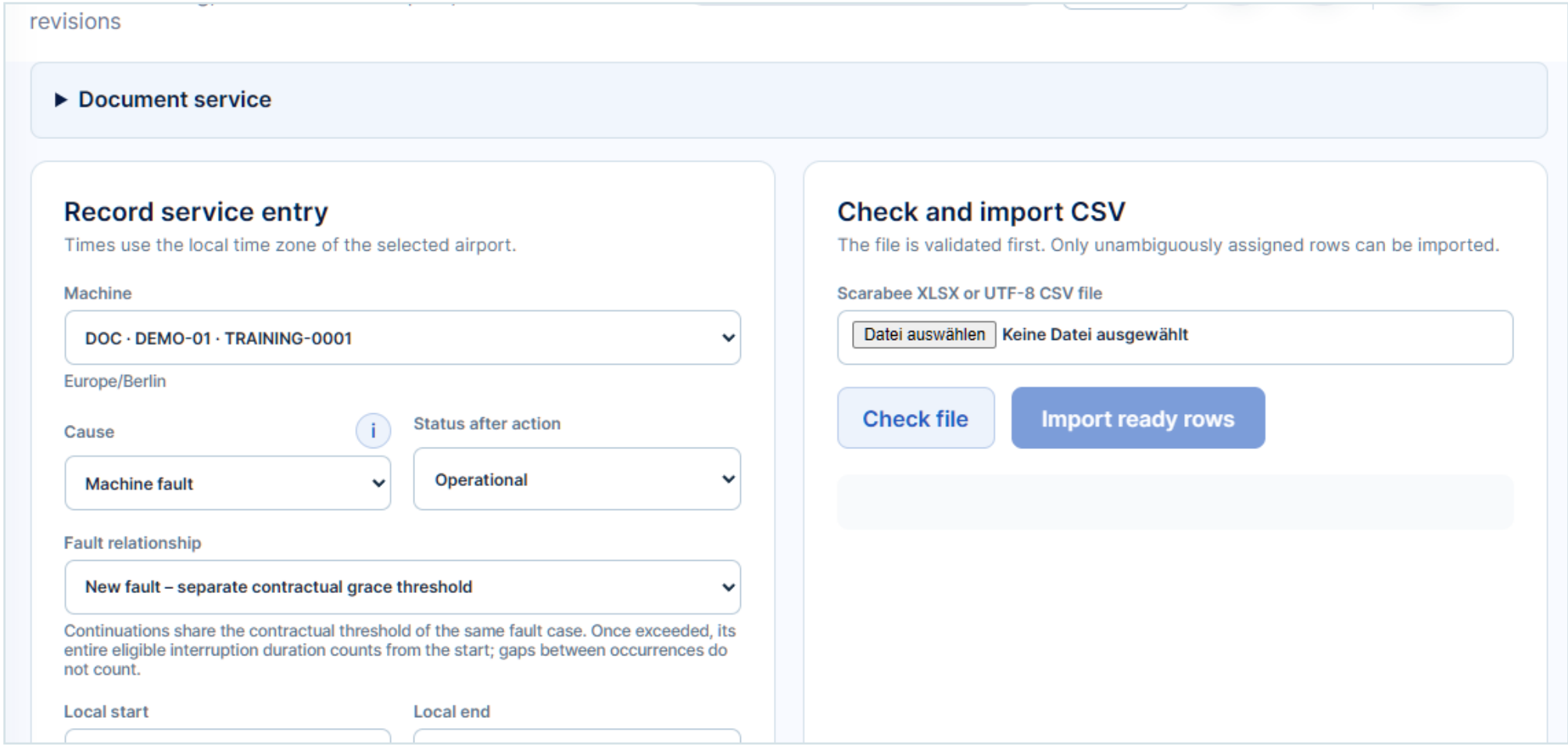
## Actual operating data from CSV

“Actual operating data - CSV” processes operational-hours files. It derives each machine day's operating window from the first and last tray. The original host identifier is retained as source evidence. Use the intended export, not an invented column structure.

The supported export contains host, day, first_tray, last_tray and Operational_Time. Check the date, first and last tray timestamps, and reported and calculated duration. Resolve invalid identifiers, missing times and inconsistencies before committing.

Select the file, validate operating data, resolve problematic row assignments and periods, then commit the ready operating records. Check new, existing and unresolved day counts. With a contract based on actual operating time, missing days can leave calculations incomplete. A stored connection profile does not prove that automatic retrieval is running.

**Figure 4 | Service records and imports: actual manager role view with synthetic data.**




Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

# 05 Reports and billing

## Create a report draft

1. Open Reports. Select the airport, scope and any individual machine selection. Check serial numbers as well as display names.

2. Set From and To for the required period, within 366 local calendar days.

3. Select German or English as report language. This setting is independent of your interface language.

4. Generate the preview. Check sender, dates, machine scope, data status, contract versions, targets, operating time and chargeable downtime.

5. Review listed service events and unresolved issues. The responsible service manager can open an anomalous event in the service archive from the draft.

6. Download a draft PDF or CSV if required. Every draft page is marked as unreleased. Downloading does not officially approve it.

PDF is intended for readable distribution; CSV contains structured summary, machine and event data. Machine code, display name and serial number are separate fields. Free text remains in the language in which it was entered.

## Close the data state and release officially

Incomplete requires missing calculation inputs to be resolved. Review open indicates relevant unresolved cases. Complete permits approval of the exact data state but is not itself a release. Released refers to a stored official version.

1. Review all substantive data and resolve relevant open cases. Check contract validity and machine operating dates.

2. Enter a concrete period-closure reason of at least ten characters.

3. Choose “Close reporting period”. Verify the confirmation, user and time.

4. Explicitly confirm official release of this closed data state.

5. As an authorised user, choose “Release officially”. General release authority belongs to administrators and the responsible service department, not headquarters, internal technicians or auditors alone.

6. Wait for archive confirmation. Check reference, version, approver and time, then download the official file.

If the underlying data or rules change, close the new state again. If archiving succeeds but the PDF download fails, download the existing version from the archive. There is no need to approve another version simply to retry a download.

## Subsequent versions and historical reports

The first official release creates version 1. A later version for the same scope, dates and language requires a correction reason of 10 to 500 characters. Review corrected source data, close the current state again and release the subsequent version. Earlier PDFs and CSVs remain unchanged in the archive.

Open the report archive independently of the current draft. Select airport and available date filters; search by reference, serial number, machine or version. Check language and scope. “Withdrawn - please recreate” identifies a report marked accordingly; do not treat it as the current valid issue. Historical files are not reconstructed using today's live calculation.

## Duplicate billing protection and contract amounts

Machine selection displays periods already billed. Check the actual interval behind a single “Billed through” date. Separate intervals may contain gaps. An unavailable billing overview does not mean that nothing has been billed.

The preview identifies previously billed machine days excluded from new charges. Full coverage may show “No additional machine days to bill”. Partial coverage leaves only uncovered days relevant. Create a corrected version through the intended correction workflow; changing dates is not a substitute for correcting the original scope.

The monthly maintenance amount per machine, contract currency and deduction tiers come from effective contract rules. Check the base amount, selected days, target shortfall and applied tiers. A released Uptime report is not evidence of an external accounting posting or payment. Producing it does not automatically order either action.

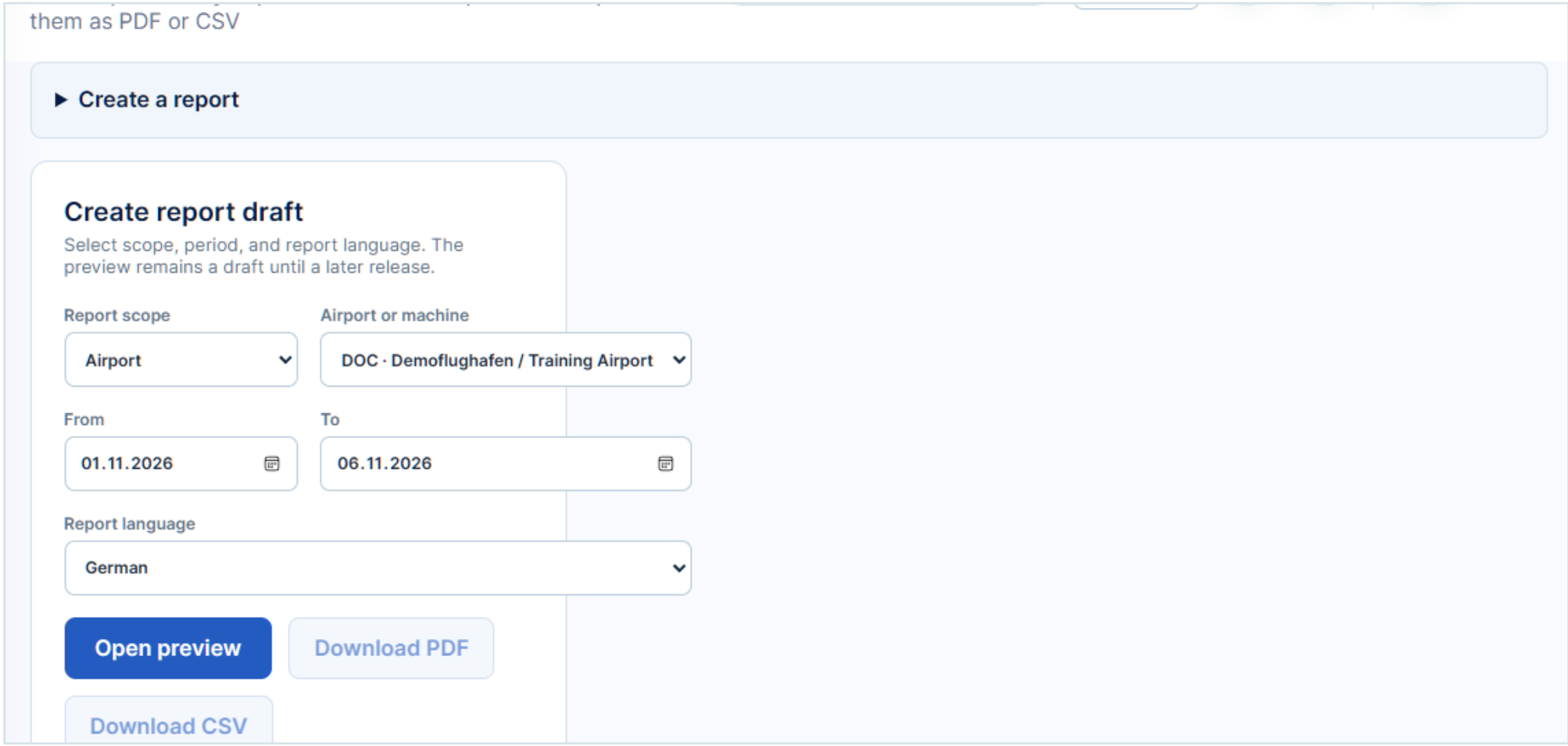
## Calculation rules with examples

The configured allowance applies once per continuous fault case and does not restart at midnight. With a 24-hour allowance and a continuous 30-hour outage, all 30 eligible hours count as downtime. The allowance is a threshold, not a deduction. Equality does not exceed the threshold. Fault-case assignments must be correct; separate visits do not automatically represent separate faults.

Scheduled maintenance is excluded from the operating basis and does not consume the allowance. Overlapping intervals count once in total downtime. Individual causes can each show their full chargeable duration, so their sum can exceed overall downtime. Authorised users explicitly decide whether records concern the same fault; the system does not infer it from similar text.

In a simplified example, 600 minutes of statistical operating time and 30 chargeable minutes produce 95 percent uptime. Multiple-machine totals are time-weighted. A daylight-saving transition can make a day 23 or 25 real hours long. The airport time zone determines day boundaries.

**Figure 5 | Reports and billing: actual manager role view with synthetic data.**




Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

# 06 Import formats and troubleshooting

Supported routes: canonical service CSV; Scarabee service CSV or XLSX; Scarabee machine XLSX; operational-hours CSV containing host, day, first_tray, last_tray and Operational_Time. Arbitrary spreadsheets, legacy XLS files, PDF reports or renamed files do not become supported formats.

The canonical service header is ExternalReference;SerialNumber;Category;StartUtc;EndUtc;WhatHappened;ActionTaken;RestorationStatus. ExternalReference is optional; the other fields are mandatory. Use UTF-8 and unambiguous ISO timestamps with Z or an offset. Quote text containing delimiters. Categories: MachineFault, OperatorError, PassengerInterference, ThirdPartyFault, ScheduledMaintenance. Status values: Restored, ProvisionallyRestored, StillOutOfService, FollowUpRequired.

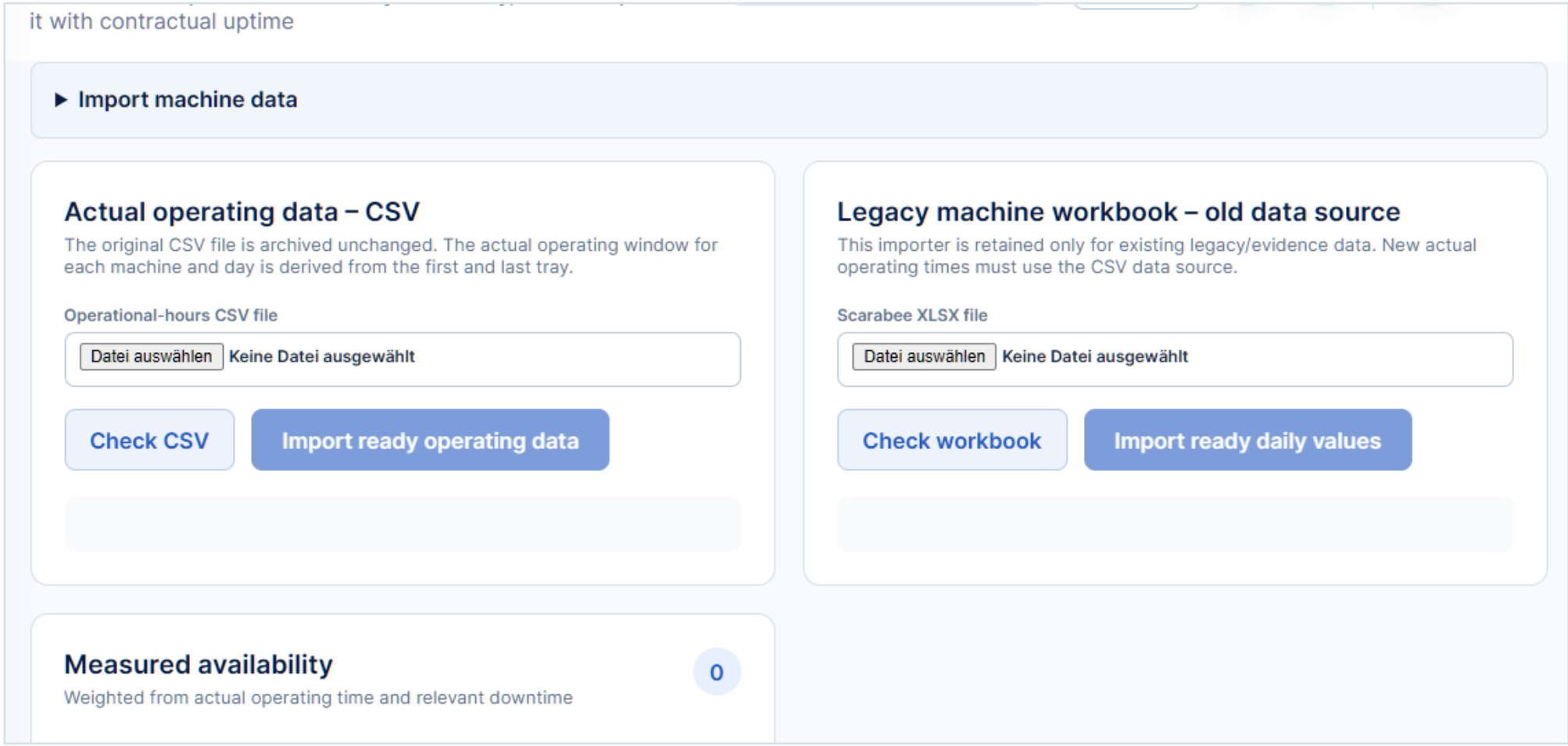
For Scarabee machine XLSX, sheet names start with Oa - Lane . Lane, Date, Actual Operating Time, Relevant downtime and Operational availability appear in the specified header. The workbook must correctly identify its 1900 or 1904 date system. Durations are Excel day fractions; availability is between0 and1. Recalculate the workbook before export if cached formula values are stale.

Review: read each row issue and resolve it against evidence. AlreadyStored: identical existing data; another import is unnecessary. Missing machine: verify the complete serial number and assignment. Changed file or profile: generate a new preview. Daylight-saving ambiguity: correct the timestamp using an explicit offset. Access denied: ask for a role/scope review; do not share another person's account.

After downloading PDF/CSV, check airport, serial number, period, language and release state. A draft is not an official release; current analysis does not replace a historical archived document. For incidents, record time, workflow and reference; remove sensitive data from screenshots.

Service XLSX: the 1904 date system is explicitly rejected. Use a business-verified export in the 1900 date system; do not merely toggle the workbook option without checking actual dates. This differs from the machine XLSX import. Supply an unambiguous offset or the required time basis for ambiguous local times. Correct duplicate columns and invalid durations before committing.

**Figure 6 | Import formats and troubleshooting: actual manager role view with synthetic data.**




Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

# 07 Service import: durations and corrections

1. Check start and end against the work record, including date and time zone. The software calculates elapsed duration. Ten minutes with two technicians means ten minutes duration, not twenty person-minutes.

2. Correct start or end when timestamps are wrong. A free total-duration value does not replace the interval. End must be later than start.

3. In import review, open the affected row, correct the offered fields using evidence and confirm adoption. Work only within your assigned scope.

4. Wait for confirmed saving and automatic view refresh. Do not replace corrected rows with a blind repeat import. If the display is unclear, check date filters and the stored row.

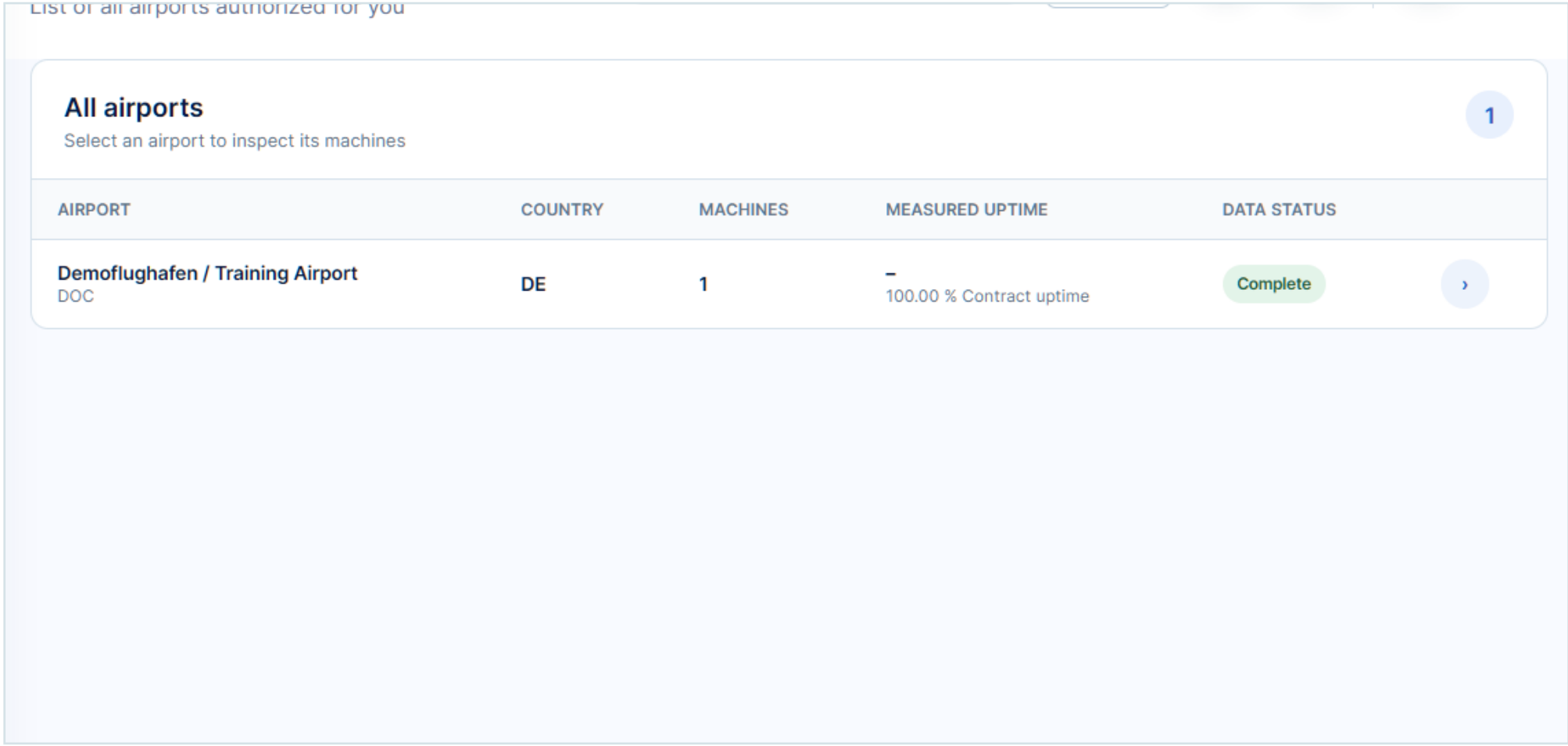
5. The responsible service manager corrects stored service events in the service archive with a reason. Internal technicians and administrators without an additional service-manager assignment refer the case.

6. Compare event timestamps, revision and the current report preview. Official archived reports remain unchanged; release a justified subsequent version where required.

# 08 Measured and rule-based display

With imported machine measurements, measured availability retains its existing meaning. Without measurements, the overview can show availability calculated from effective rules and service events. Always read its label and selected period; a rule-based value is not an independent measurement. Missing rules, operating data or unresolved checks must be clarified.

**Figure 7 | Measured and rule-based display: actual manager role view with synthetic data.**




Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

# 09 Tickets, handover and open faults

In the service workspace, first read existing fault notices for the selected machine. If acknowledgement is required, confirm only after reading.

In the Fault step, deliberately distinguish the same fault, a new fault and not sure. For the same fault, confirm the matching existing record. Not sure creates a need for review and can block official report release until clarified.

Operational: describe the functional check and its result in the work record and confirm the actual restoration time within the intervention interval. Provisionally operational or still out of service: record restrictions, next action and next review time. For further action, also specify current usability.

Where offered, authorized users can take responsibility or offer handover to an eligible recipient. Until acceptance, responsibility remains with the current owner. Do not treat a declined or withdrawn handover as completed.

For unconfirmed transmission, use the offered retry of the same submission. If machine information changed, reconsider the fault relationship. Report urgent faults through the agreed operational route when offline.

The service manager distinguishes technical resolution, evidence review and final closure. Before release, check that related review cases are actually completed and stored service times are correct.

# 10 Downtime rules for established core calculations

## Elapsed time, not person-minutes

Service start and end establish elapsed duration. Two technicians working from 12:00 to 12:10 represent ten elapsed minutes, not twenty downtime minutes. The technician's person-time total must not replace the interval. When timing is incorrect, correct the actual timestamps and their dates rather than forcing an inconsistent total.

## Continuous fault exceeding the allowance

For an eligible continuous machine fault, an outage strictly longer than the configured allowance counts from the start. The allowance is not subtracted after it is exceeded. It does not restart at midnight.

Example A: a 24-hour allowance, failure Monday 12:00, restored Tuesday 15:00. Elapsed time is 27 hours. Assuming all 27 hours are eligible operating time, downtime is 27 hours, not three hours.

Example B: a 60-minute allowance and a continuous 120-minute fault give 120 eligible downtime minutes. An interval of exactly 60 minutes does not exceed that allowance.

## Repeated instances of the same fault

Separate repeated outages are combined under the repetition rule only when both conditions hold: at least three eligible outages concern the same explicitly linked fault on the same machine and local day, and their combined eligible duration exceeds the allowance.

Example C: 20 minutes, then 40 minutes, then 10 minutes, with a 60-minute allowance. The third event takes the total to 70 minutes; all 70 eligible outage minutes count. Operational gaps between the events do not count.

Example D: three ten-minute events total 30 minutes. With a 60-minute allowance, the repetition rule contributes no downtime. Three twenty-minute events total exactly 60 minutes and also do not exceed the allowance.

Example E: two events of 40 and 30 minutes do not satisfy the minimum count of three. They do not trigger the repetition rule merely because their sum is 70. An individual continuous event exceeding its allowance remains chargeable independently.

## Same cause is an explicit relationship

Select the existing matching fault when that is factually correct. Similar descriptions do not automatically link records. A new unrelated fault must not be attached to an old one to change the deduction. If uncertain, request review and provide enough evidence for the service manager.

## Boundaries and exclusions

The examples assume eligible operating time and valid machine dates. Operating schedules, report boundaries, planned maintenance and machine lifetime can limit the interval contributing to a report. Overlapping downtime is counted once in the overall total. Cause-level detail may overlap and must not simply be added to reconstruct the total.

A day is defined in the airport's time zone. Around daylight saving changes, a local day can contain 23 or 25 elapsed hours. Set the correct date as well as the clock time for work crossing midnight. Resolve repeated clock times explicitly.

## What a correction changes

A corrected current service event can change a newly calculated draft. It does not rewrite a previously released PDF or CSV. A later official issue must follow the versioned release process. Always compare like-for-like report scope, dates, language, rule version and source state.

# 11 Service walkthrough 1: select the machine and interval

## Prerequisites

The service module is available in this edition. Your account still needs permission to record an intervention for the chosen machine. Have the actual start and end, machine serial number, findings and restoration evidence ready.

1. Open Uptime Service. If you are already in the technician workspace, remain there.

2. In Step 1 of 5: Machine, open Machine. Read the airport code, machine code and serial number together. Do not rely on a familiar display name alone.

3. Select the intended machine. Read the displayed time zone. Enter Intervention start and Intervention end as local date and time in that zone.

4. For an overnight repair, set the end to the following date. For a job lasting more than 24 hours, use the actual later date; do not split it into daily fragments to avoid the allowance threshold.

5. If a clock time occurs twice during the autumn change, choose First occurrence or Second occurrence according to the actual event. Do not guess. A nonexistent spring clock time must be corrected from source evidence.

6. Read any current machine notices. Where acknowledgement is requested, confirm only after reading. Acknowledging a notice records awareness; it does not take ownership of the ticket.

7. Compare the selected machine and interval with your source record. End must be later than start. A two-person repair is still one elapsed interval.

8. Choose Continue. If the application reports that the machine information changed, refresh the fault relationship when prompted rather than bypassing the warning.

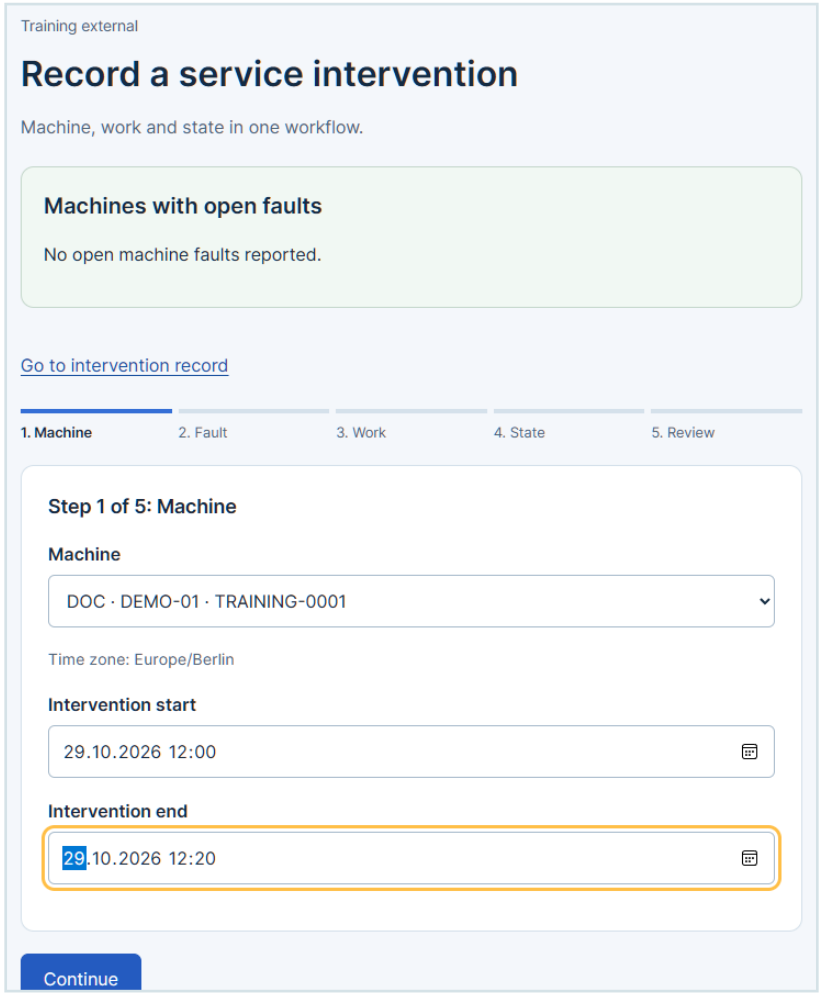
## Success check

Step 2: Fault is displayed for the correct machine and interval. If there is no available machine, ask for an explicit assignment. An external technician's assignment is machine-specific.

## Practice

In training only, use DEMO-01, 29 October 2026, 12:00 to 12:20. The resulting elapsed duration should be 20 minutes irrespective of how many technicians attended.

## Figure 8 | Step 1: use the machine identity, time zone and complete timestamps.




Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

# 12 Service walkthrough 2: link the correct fault

1. At Step 2: Fault, read the existing fault information and any previous work before choosing a relationship.

2. Select Yes, the same fault only when this intervention concerns the existing cause. If more than one candidate is displayed, use Confirm the matching fault to choose the correct one.

3. Check the earlier timestamp, original description and last action. Similar wording alone is insufficient evidence.

4. Select No, a new fault when this is genuinely unrelated. This keeps independent faults separate.

5. If the evidence is insufficient, choose Not sure - request review. Do not choose an arbitrary answer merely to keep the official report unblocked.

6. Explain the uncertainty in your findings or work description. Include the physical observation, earlier reference if known, and the question requiring a decision.

7. Choose Continue. Review the next step to confirm that the original fault is shown for a same-fault continuation, or that a fresh description can be entered for a new fault.

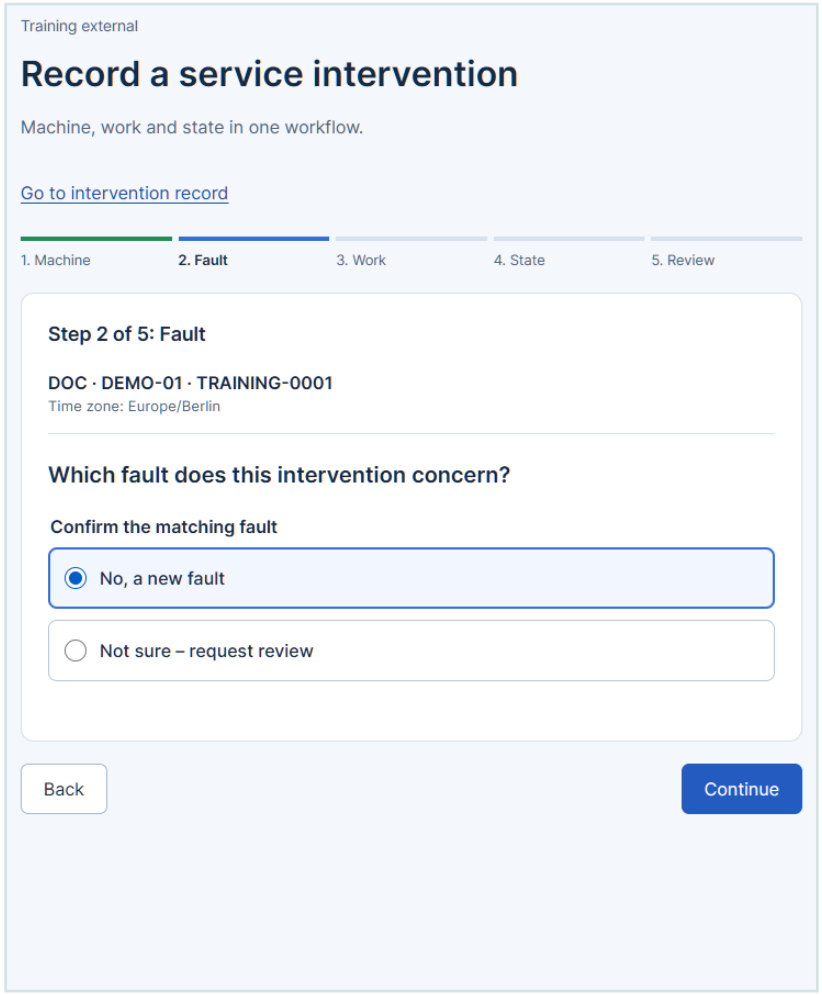
## Why this matters

The relationship affects continuity, repetition and later review. Three records with similar text do not automatically become the same fault. A review request can block official release for the affected period until the responsible person resolves it. That is different from a failed service save.

## Success check

Your selected relationship matches the evidence. When unsure, the uncertainty is visible for review instead of being concealed in a new unrelated record.

## Figure 9 | Step 2: select an evidenced fault relationship; request review if uncertain.




Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

# 13 Service walkthrough 3: describe the work

1. In Step 3: Work, choose the factual Cause when entering a new fault. The available categories include Machine fault, Operator error, Passenger interference and Third-party fault.

2. Enter What happened? in factual terms: the affected component, observed symptom and circumstances. Avoid unsupported blame and vague text such as repaired.

3. For an existing fault, read Original fault and Previous work. Record New findings where applicable without rewriting the historical original description.

4. In Work performed, check and result, describe the action taken and the test performed. State the observed result, including any remaining restriction.

5. Separate an observation from a conclusion. For example: drive alarm displayed; connector reseated; three unloaded cycles completed without recurrence.

6. Do not enter passwords, access tokens, private contact details or unnecessary personal data in free text. Use your approved incident reference where sensitive evidence is held elsewhere.

7. Re-read the category and description. Do not reclassify a machine fault to reduce reported downtime.

8. Choose Continue. If a required field is highlighted, complete it with actual evidence rather than filler text.

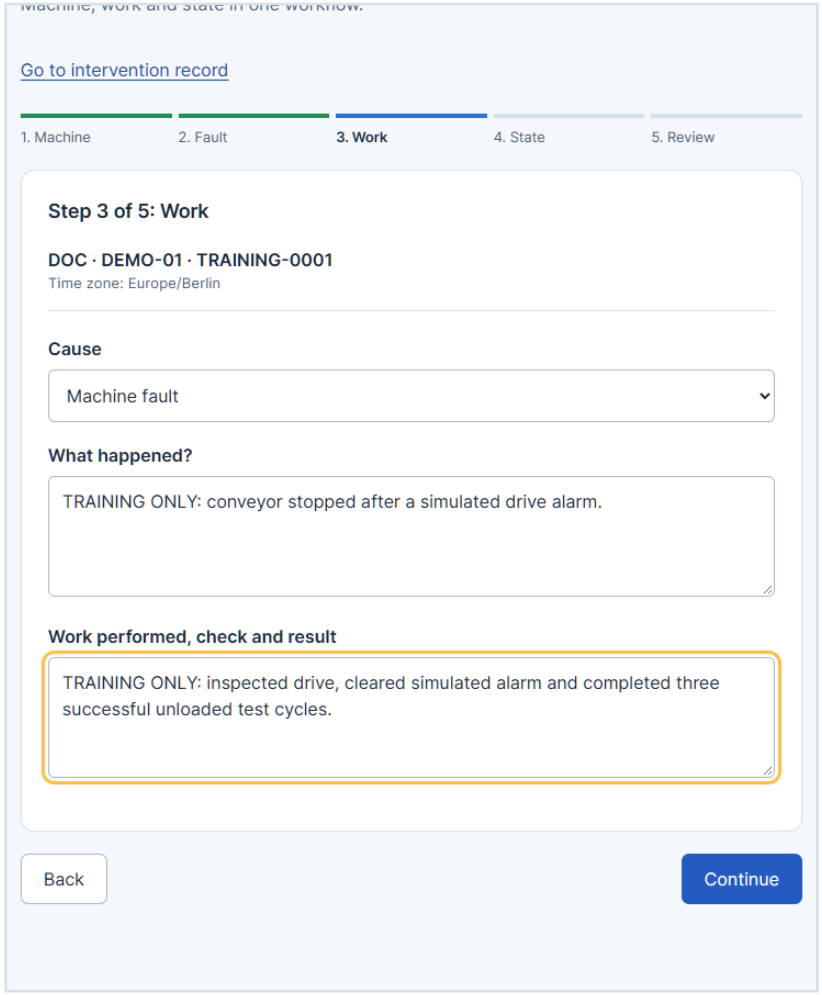
## Example of useful work documentation

Observed intermittent drive alarm and conveyor stop. Inspected connector seating and reseated the loose connector. Completed three unloaded test cycles and one supervised loaded cycle with no alarm recurrence. No operating restriction remained at handover.

## Example requiring further action

Alarm cleared temporarily, but cause not confirmed. Machine remains isolated. Replacement drive inspection is required; responsible service manager informed. This description must be paired with a truthful non-restored state in the next step.

## Figure 10 | Step 3: record cause, observation, action, functional check and result.




Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

# 14 Service walkthrough 4: record the resulting state

1. At Step 4: State, answer Is the machine operational after your work? from the physical state after the intervention, not from the fact that your shift ended.

2. Choose Operational only when restoration is supported by your functional check and result. Enter Restoration confirmed at with the actual date and time.

3. For a retrospective entry, do not leave a default current restoration time. It must agree with the recorded intervention interval. If it falls outside that interval, correct the source times or the restoration time according to evidence.

4. Choose Provisionally operational when use is possible subject to a remaining condition. Enter the restriction and next action, plus the next review time requested by the form.

5. Choose Still out of service when the machine cannot be used. Describe the next action and review time. Do not mark Operational simply to remove it from an open-fault view.

6. If Further action required is selected, answer Can the machine currently be used? explicitly. Yes, No and Usability unconfirmed convey different operational states.

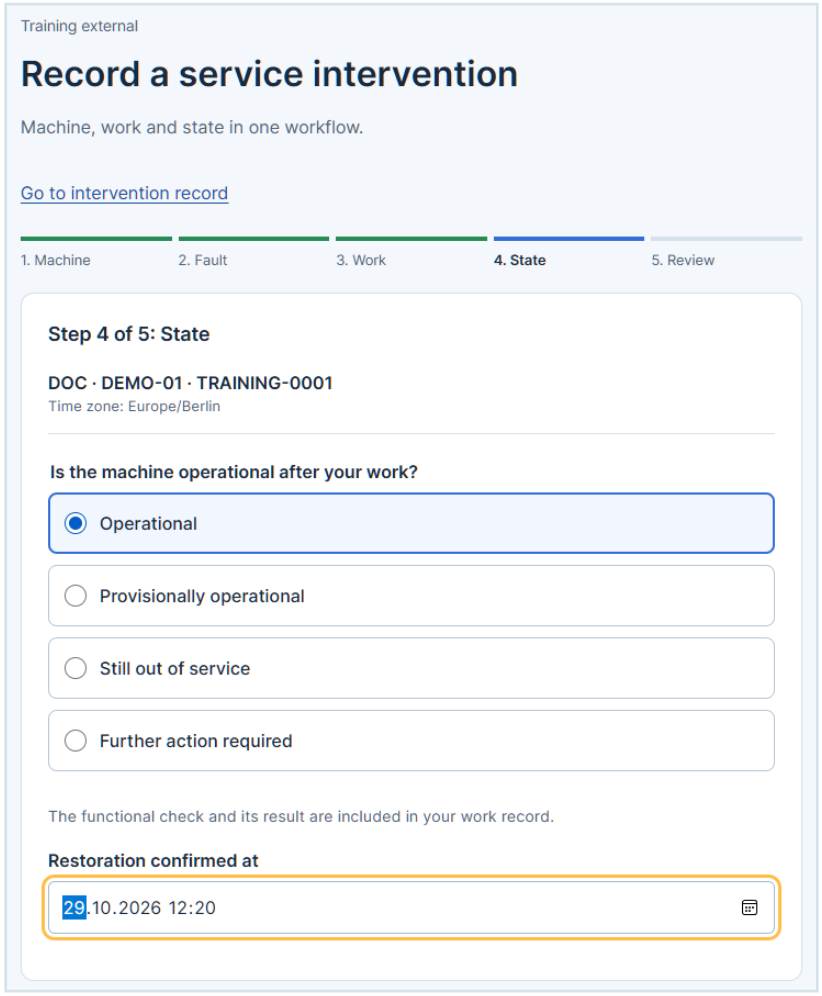
7. Check that the work narrative, usability and status agree. Further work being planned does not by itself prove the machine is down, and a completed visit does not prove restoration.

8. Choose Continue and read the full Review summary.

## Success check

The next person can tell whether the machine can be used, what remains to be done and when to review it. For Operational, the restoration time is evidenced and lies within the entered intervention interval.

## Figure 11 | Step 4: record the true restoration state and confirmed time.




Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

# 15 Service walkthrough 5: review, save and verify

1. At Step 5: Review, compare start, end, matching fault, cause, description, work performed, state and restoration or next-review time against your source notes.

2. Use Back to correct an inaccurate field. Recheck dependent fields after changing the machine or interval.

3. Confirm that the record contains elapsed work times and does not substitute multiplied technician time.

4. Choose Save record once. Wait for the application to confirm the outcome; do not open another tab and submit a second copy while waiting.

5. A successful save states that the service entry and ticket have been saved. Retain the displayed references through your normal work-record process.

6. If functional review is required, note that the record can be saved while official release for the affected period remains blocked. Send the responsible manager the reference and reason for uncertainty.

7. If the response says transmission is not confirmed, use Check submission again for the same submission. Avoid recreating it as a new intervention, which would risk a duplicate.

8. Use Record another intervention only for a genuinely separate record, or finish and sign out.

## No connection

The form is not a substitute for your agreed urgent telephone reporting route. A visible unsent form is not a server record. Keep the original work evidence and verify the final reference after connectivity returns. The application should not be treated as a guaranteed offline queue.

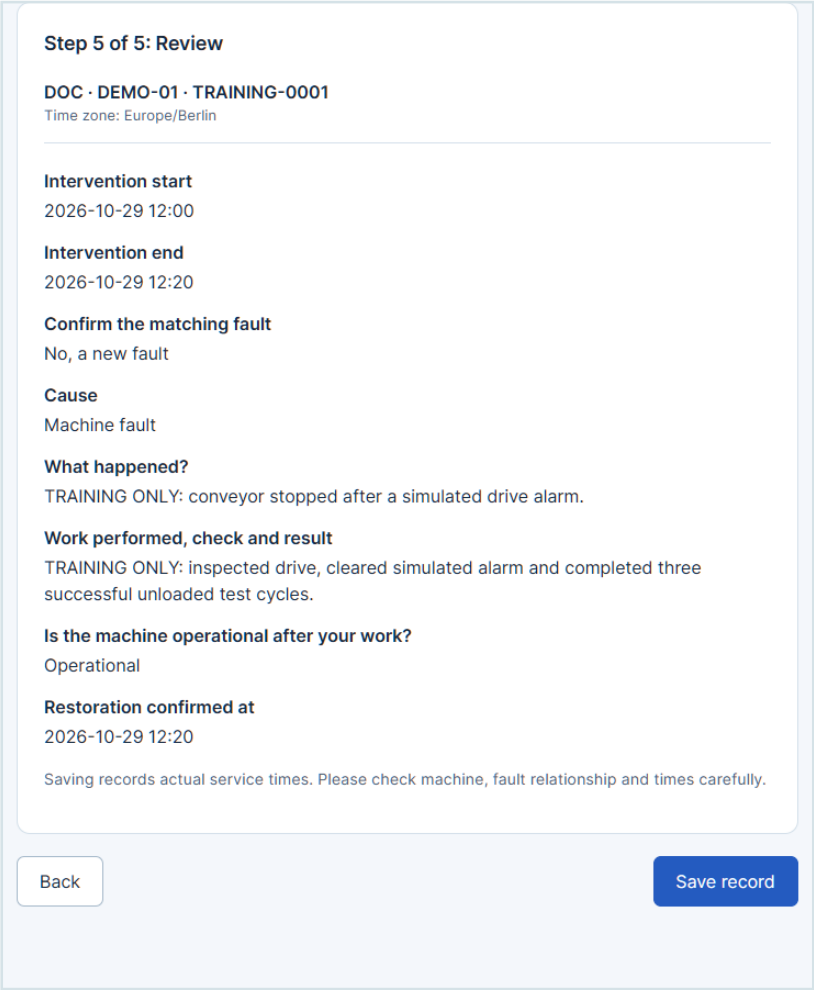
## After a mistake is discovered

Send the service manager the service reference, machine, wrong value, correct value, source evidence and reason. External and internal technician roles alone cannot correct the stored service event. Creating another apparently new job is not a correction.

## Illustrated boundary

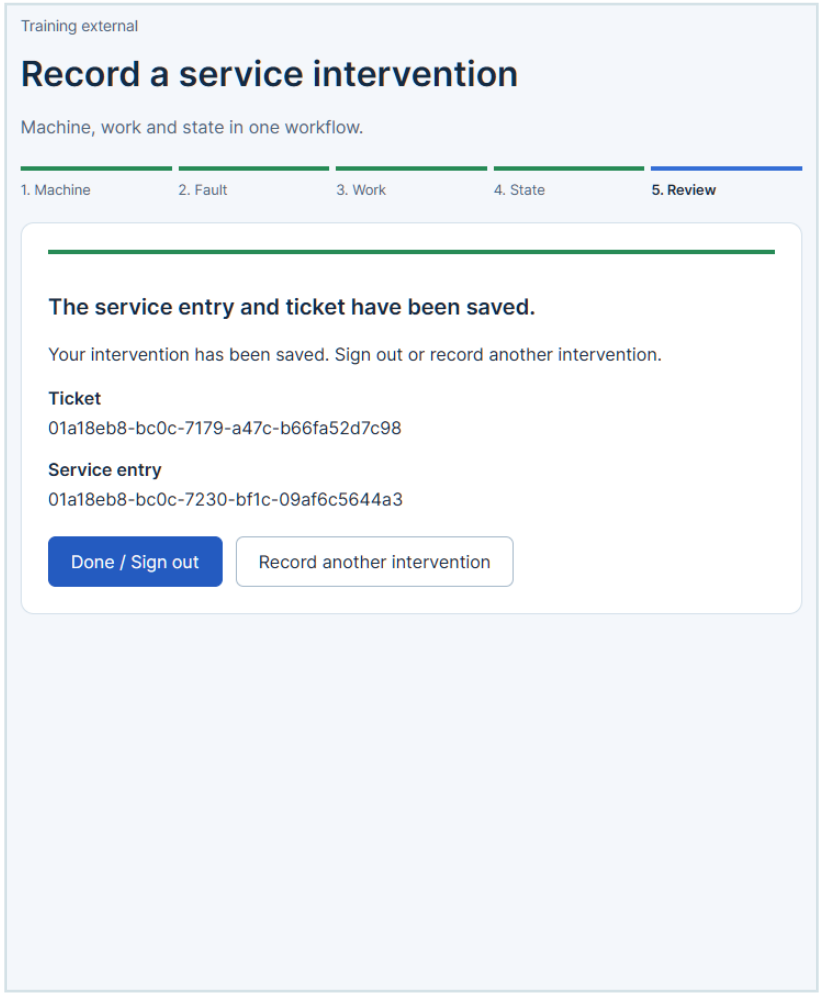
The illustration below shows the review before saving. A synthetic sample was subsequently saved in the isolated training installation to verify the confirmation screen. No customer record was created or changed.

## Figure 12 | Step 5: perform the final factual check before Save record.




Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

## Figure 13 | Confirmed synthetic save: retain the ticket and service-entry references.




Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

# 16 Field checklist and escalation examples

## Machine and time

Machine: match serial number and airport, not name alone. Start/end: actual local dates and times in the displayed zone. Clock occurrence: resolve daylight-saving ambiguity from evidence. A missing machine is an access or master-data issue; do not substitute another machine.

## Fault relationship

Same fault: select the matching existing case. New fault: a genuinely independent cause. Not sure: an explicit review request. Supply evidence to resolve the relationship; do not split a continuous outage into apparently independent cases.

## Cause and narrative

Cause: the supported classification. What happened: observed symptom and circumstances. Work performed: action, test and result. Keep free text concise but sufficiently specific for a reviewer who did not attend.

## Restoration and follow-up

Operational: confirmed restoration time and successful check. Provisional: restrictions and next review. Out of service: remaining action and review. Further action required: explicit current usability as well as next action. Never substitute an administrative closure for a physical state check.

## Escalation packet

Provide the application version if visible, your role, machine reference, relevant timestamp and time zone, record or ticket reference, the action attempted, exact message and whether the save was confirmed. Include a cropped screenshot only if it contains no credentials or unrelated customer data.

## Worked handover

A technician records 12:00 to 12:20, still out of service, and a replacement inspection at 14:00. The manager assigns responsibility and checks the next review. A second technician records the continuation against the same fault after reviewing previous work. The first visit is not rewritten to pretend restoration occurred. When the repair is actually successful, the later record documents its check and restoration.

## End-of-shift checklist

Check that every completed visit has a confirmation reference, every unresolved machine has a truthful state and next action, and every uncertainty has an owner through the agreed operational process. Sign out of shared devices. Do not assume that a read acknowledgement means another technician accepted responsibility.

# 17 Import workshop: validate before adopting

## Prepare the source

1. Keep the original file unchanged in your approved evidence location. Work on a copy if it must be corrected.

2. Identify whether the file contains machine measurements or service interventions. Open Machine data or Service data accordingly; the two imports serve different purposes.

3. Check the airport, serial-number convention, reporting dates, time zone and source format. A familiar file name is not proof that every row belongs to that month.

4. Confirm that machines exist and are assigned to the correct airport. A missing or ambiguous mapping must be resolved before import.

5. For an Excel source, confirm the workbook's date system. Machine workbooks support their specified 1900/1904 handling; a 1904 service workbook must be converted to a supported, verified 1900 export. Never simply change a workbook setting and assume the visible dates survived correctly.

## Preview and adopt

6. Select the file and appropriate available import configuration. Choose the preview/check action first.

7. Inspect every row marked for review. Compare the source row, serial number, dates, cause and descriptions. A combined description retained as evidence is not necessarily a failed import.

8. Correct an editable review row using supported controls. Set the actual timestamps and required category; do not force a total that contradicts start and end.

9. Recheck the row result after saving the correction. Distinguish original issues retained as evidence from the current disposition.

10. Adopt the ready rows. Wait for the final summary and retain its reference or source-file identity.

11. Check new, existing and unresolved counts together. Already present is not a new saved record; it can be the correct result of a repeated import.

12. Open the current service or machine view, select the source period and machine, and check representative adopted rows. A filter excluding the imported month can make successful imports appear absent.

## Success check

The current disposition of each intended row is understood, no unresolved row has been silently treated as imported, and the resulting records belong to the intended machine and dates. Repeatedly clicking adopt does not resolve a factual review issue.

## Unexpected outcome

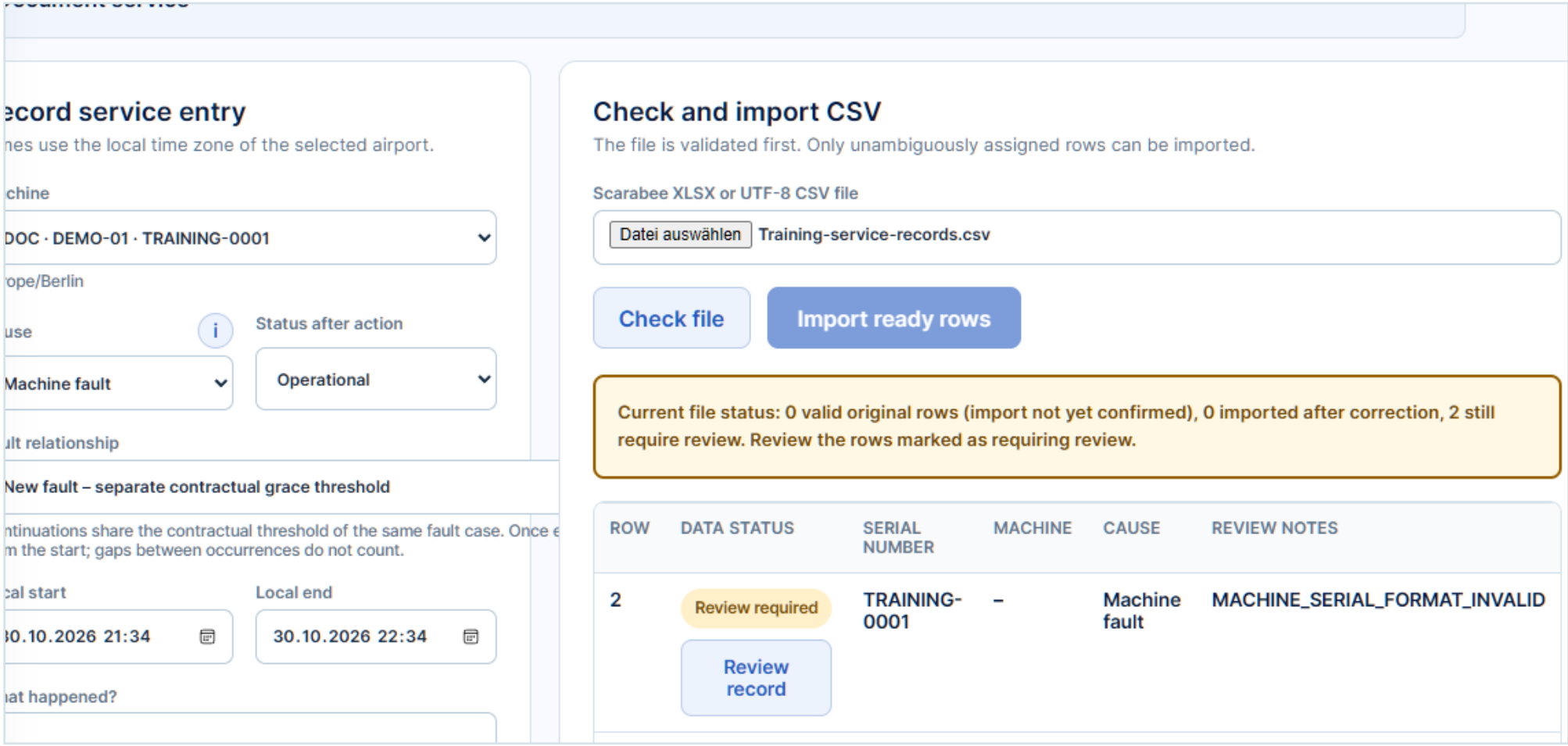
If a correction appears saved but the screen still shows an older state, allow the completion refresh to finish. Reopen the affected view or reload after confirming save. If the discrepancy remains, retain the row reference and exact count; do not create duplicates to make a counter look right.

## Import review dialog in detail

Choose Review record on the affected row. Compare Original value with Corrected value. Enter Start: date, Start: time, End: date and End: time in the time basis shown by the dialog. Use Show / edit other source fields when another supported field requires correction. Enter a reason of at least ten characters, choose Check correction, read its result, then select the explicit confirmation before Import correction. The displayed original remains evidence; the current disposition establishes whether the correction was adopted.

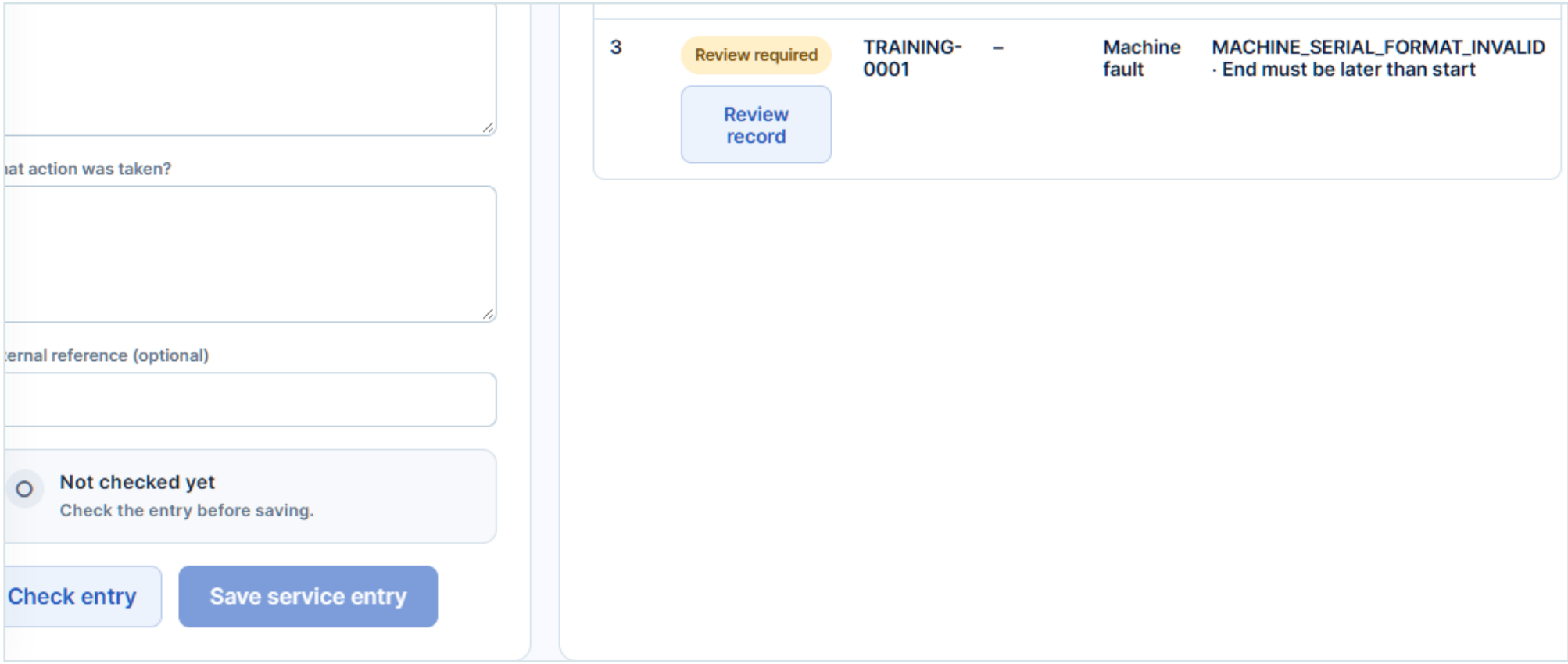
The illustrated fictional serial TRAINING-0001 is deliberately outside the file import's expected serial format, so the preview shows MACHINE_SERIAL_FORMAT_INVALID. The second fictional row also has an end earlier than its start. These are examples of rejected source data, not a successful import. Do not copy the fictional serial as a production import template.

**Figure 14.1 | Preview identifies rows requiring review; it does not silently adopt them.**



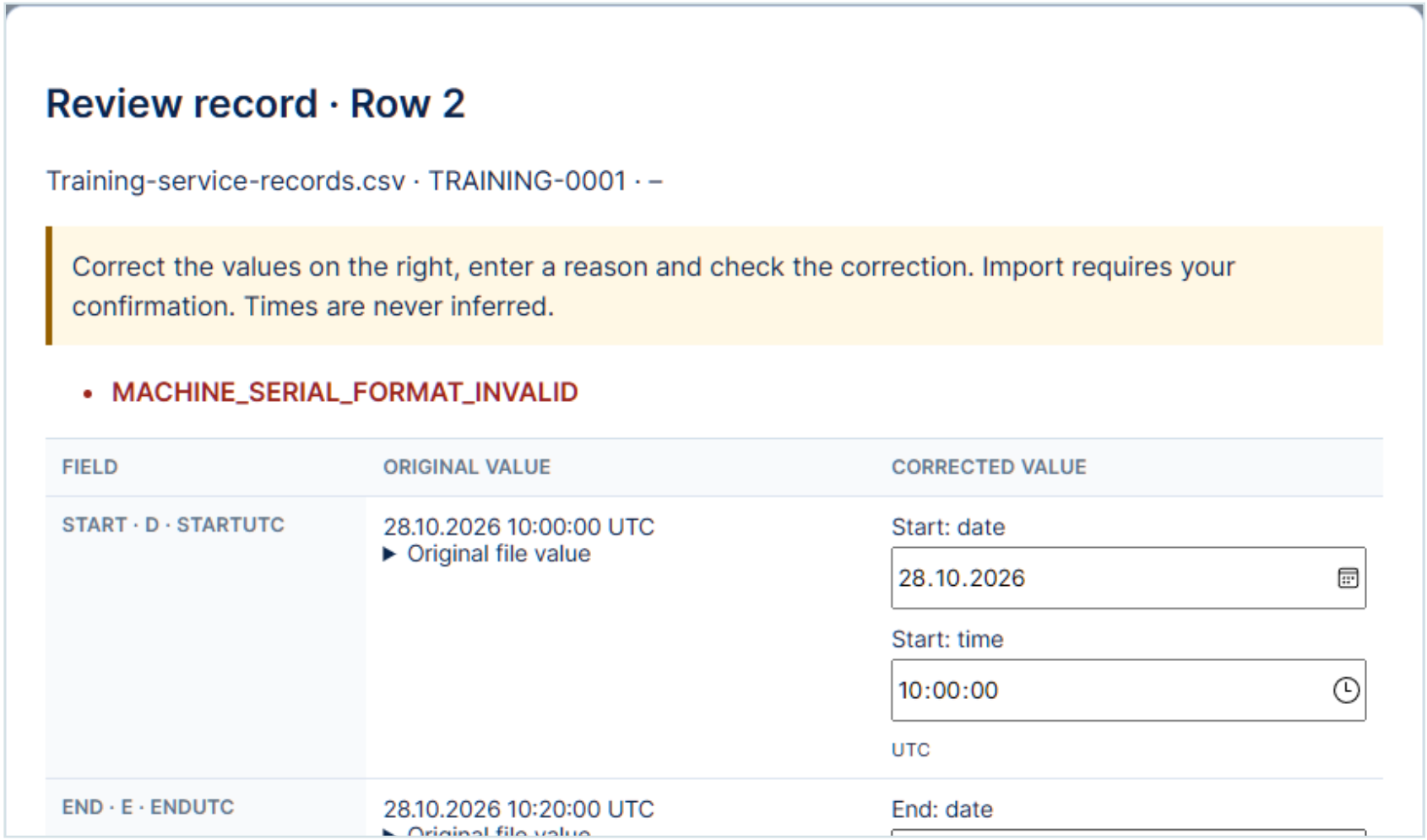

Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

**Figure 14.2 | Preview identifies rows requiring review; it does not silently adopt them.**



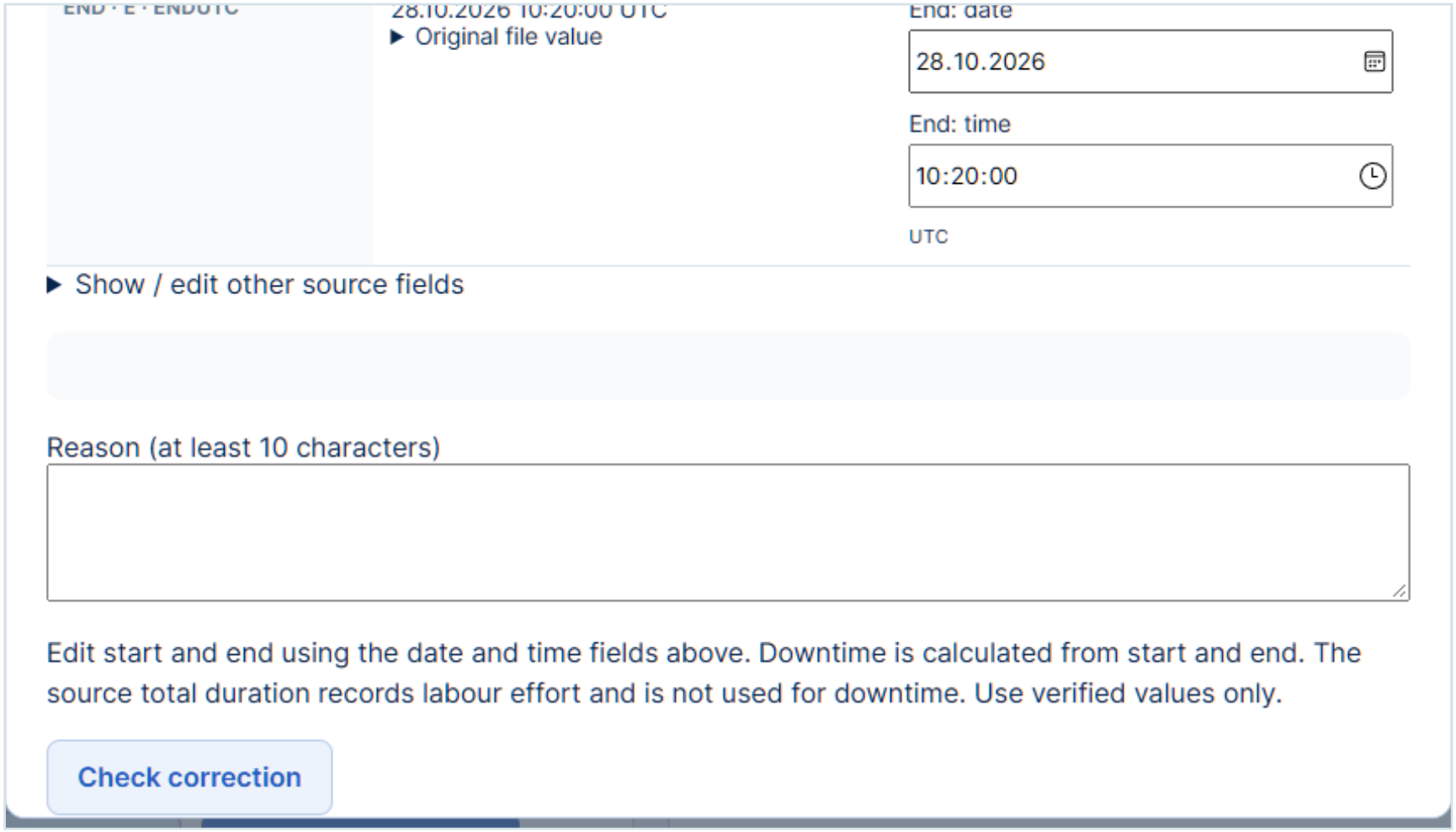

Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

**Figure 15.1 | Compare the original and proposed values, check the correction, then confirm adoption.**




Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

**Figure 15.2 | Compare the original and proposed values, check the correction, then confirm adoption.**



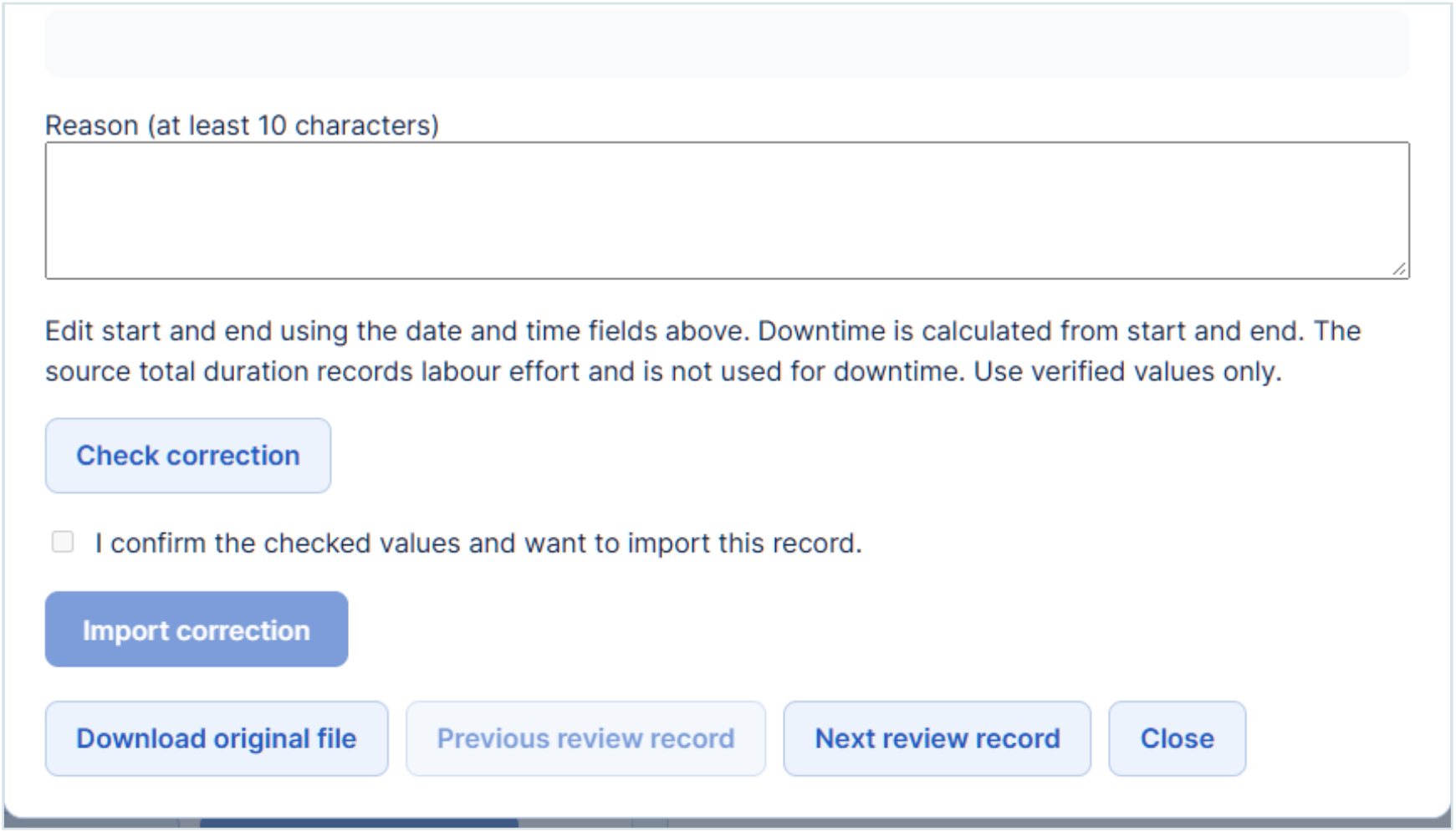

Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

**Figure 16.1 | Importing a reviewed correction requires a successful check and explicit confirmation.**




Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

**Figure 16.2 | Importing a reviewed correction requires a successful check and explicit confirmation.**




Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

# 18 Correct a stored service record: controlled procedure

1. Open Service archive and select the airport, machine and period of the event. Check whether a local date boundary explains a record appearing in a neighbouring month.

2. Identify the exact event using its reference, serial number, interval and original source. Several visits to the same machine may look similar.

3. Open the correction action available to your responsible service role. Read the current values and retained original evidence before editing.

4. Enter only factually supported changes. If the elapsed duration is wrong, change start/end to the evidenced interval. Do not use a person-time total as downtime.

5. Correct the category, description, work or restoration status when the source evidence requires it. Preserve an explanation of what was wrong and why the replacement is justified.

6. Review the proposed values and save. Wait for completion and the updated screen. Reopen the event and verify the current revision.

7. Check a new draft for the same machine and period. Verify duration, classification, cause linkage and overall uptime rather than only a headline percentage.

8. If an official report already exists, leave it unchanged. Use the controlled subsequent-version process after validating the new draft.

## Expected result

The corrected current revision is used for new calculations; original import evidence and historical releases remain traceable. A completed correction should not remain presented as an unresolved current row solely because the original file contained an error.

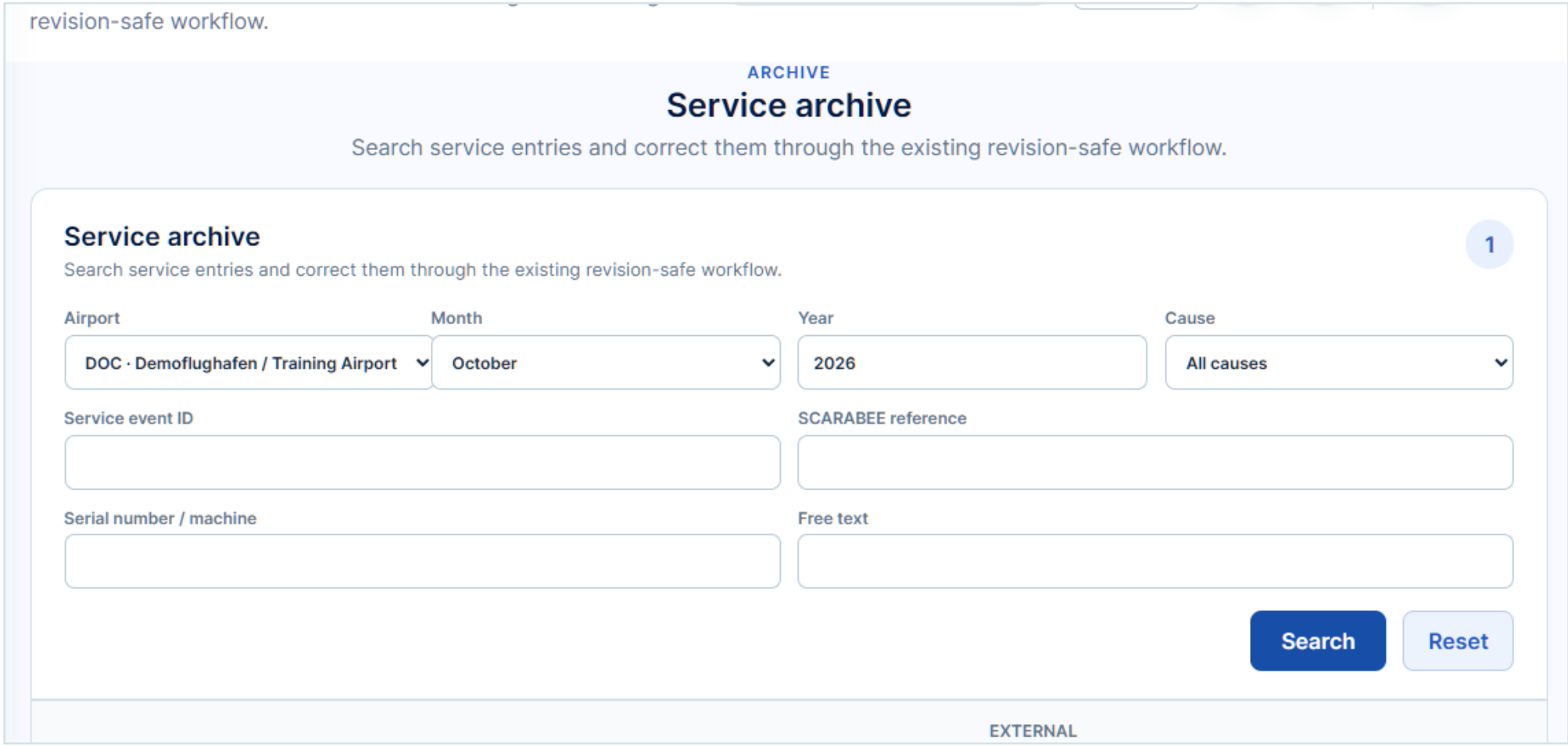
## Do not confuse three different actions

Editing an unadopted review row prepares an import. Correcting a stored event creates a revised current record. Issuing a subsequent official report archives a new approved output. One action does not replace all three.

## Role boundary

An Administrator assignment alone does not grant stored-service correction. The correcting user needs the responsible service department role for the affected scope. Technician and auditor accounts must refer the correction to that role.

**Figure 17.1 | Locate the correct event by scope, period, serial number and revision.**



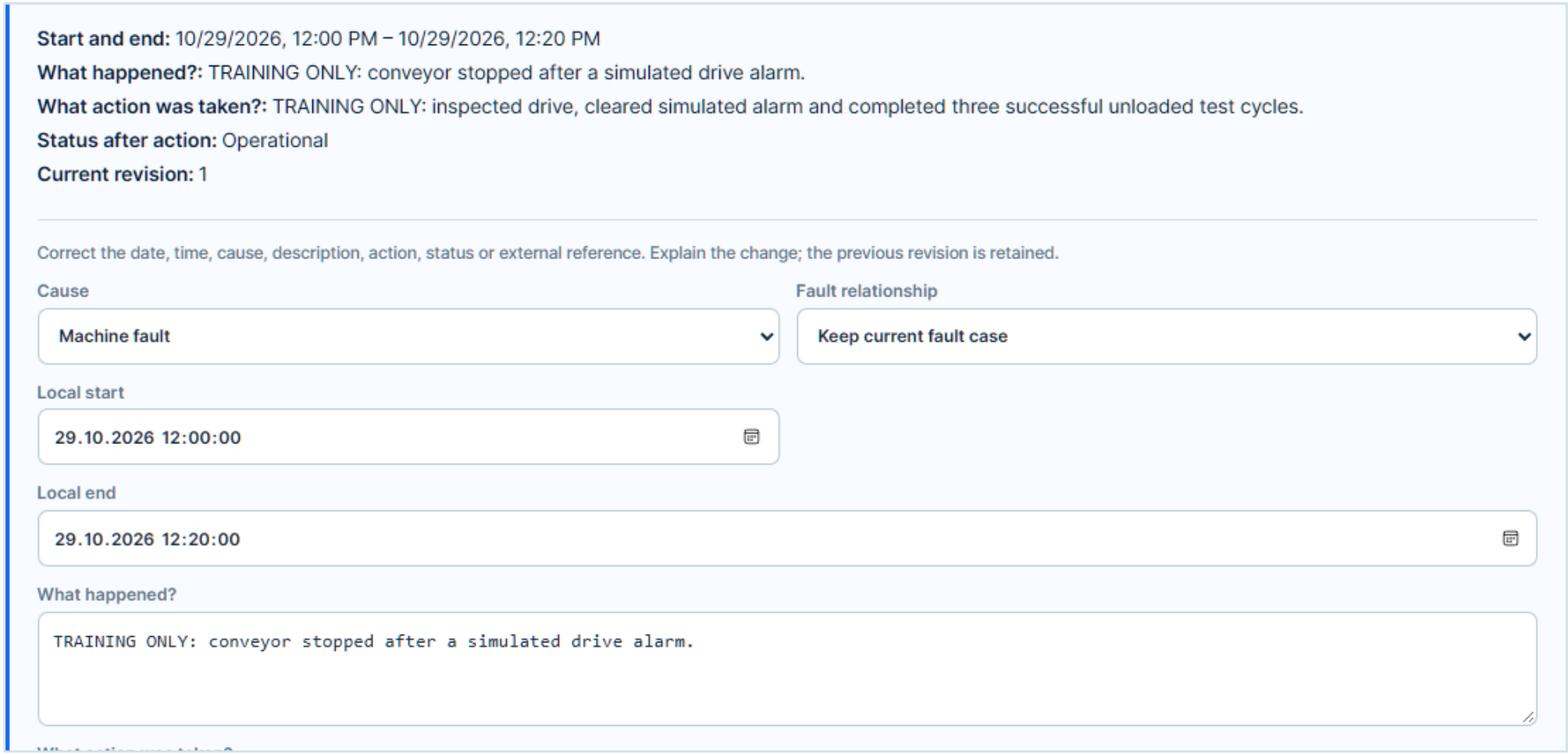

Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

## Figure 17.2 | Locate the correct event by scope, period, serial number and revision.



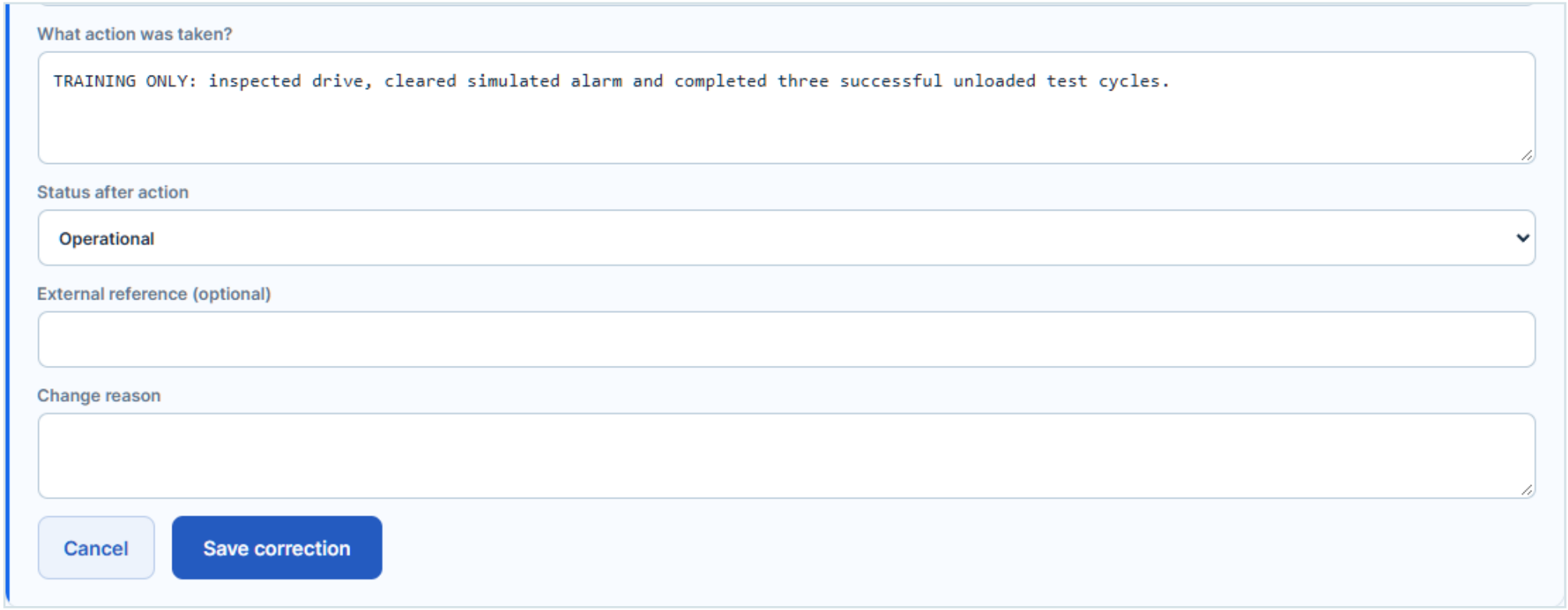

Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

## Figure 18.1 | Stored correction: preserve the reason and verify the new current revision.




Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

## Figure 18.2 | Stored correction: preserve the reason and verify the new current revision.




Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

# 19 Report walkthrough: from scope to evidence

1. Open Reports. Select the intended airport or machine scope. Read serial numbers where multiple machine names are similar.

2. Set From and To. Use the report's date controls; do not infer an inclusive end date from a technical filename alone. Check the displayed report period in the preview.

3. Choose English if the output is required in English. This is independent of the current interface language.

4. Open the preview and read the data status before interpreting availability. Missing data, open review and a completed calculation are different conditions.

5. Check the calculation basis. Measured availability comes from imported machine data; rule-based availability uses the applicable operating schedule and relevant service events. A percentage should always be read with its period and basis.

6. Check the rule versions and machine operating dates. An incorrectly configured start date or monthly price is a master-data issue, not a reason to alter a service visit.

7. Review machine rows, downtime and the listed service events. For an unexpected result, inspect the actual interval, source state and cause linkage.

8. Download a draft PDF or CSV if needed. Open the file and check reference, scope, dates, language and draft status. A downloaded draft has not been approved merely because it looks complete.

9. If your role cannot release reports, send the checked draft and any issues to the responsible service manager. Do not use another account to obtain the release button.

10. For an already released version, retrieve its stored files from Report archive. Comparing an archived report with a newly calculated draft compares two potentially different data states.

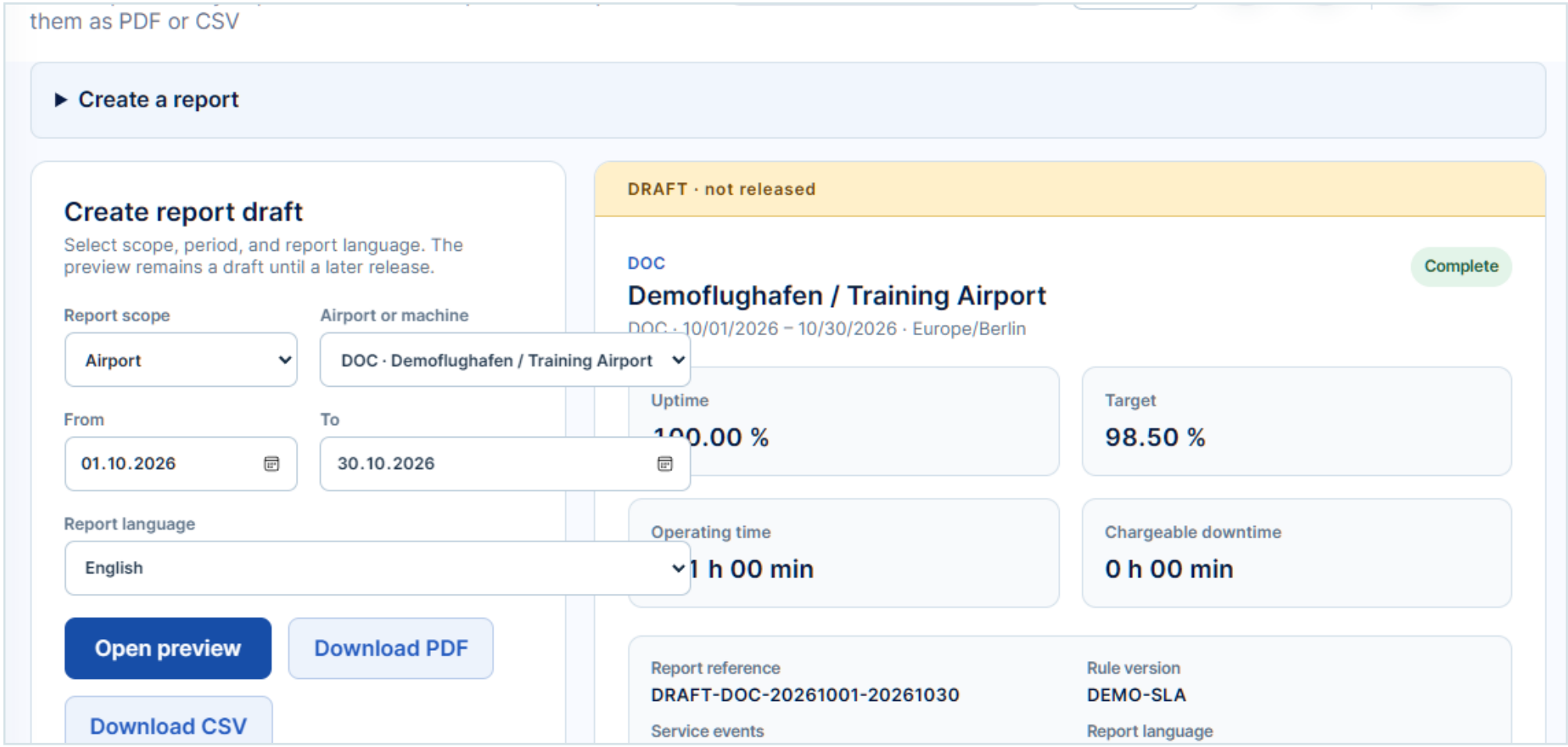
## Worked weighted total

Machine A has 600 eligible operating minutes and 30 downtime minutes: 95 percent. Machine B has 60 eligible minutes and zero downtime: 100 percent. Combined availability is (660 - 30) / 660 x 100 = 95.4545... percent. A simple mean of 95 and 100, or 97.5 percent, would be wrong because the denominators differ.

## A meaningful handoff

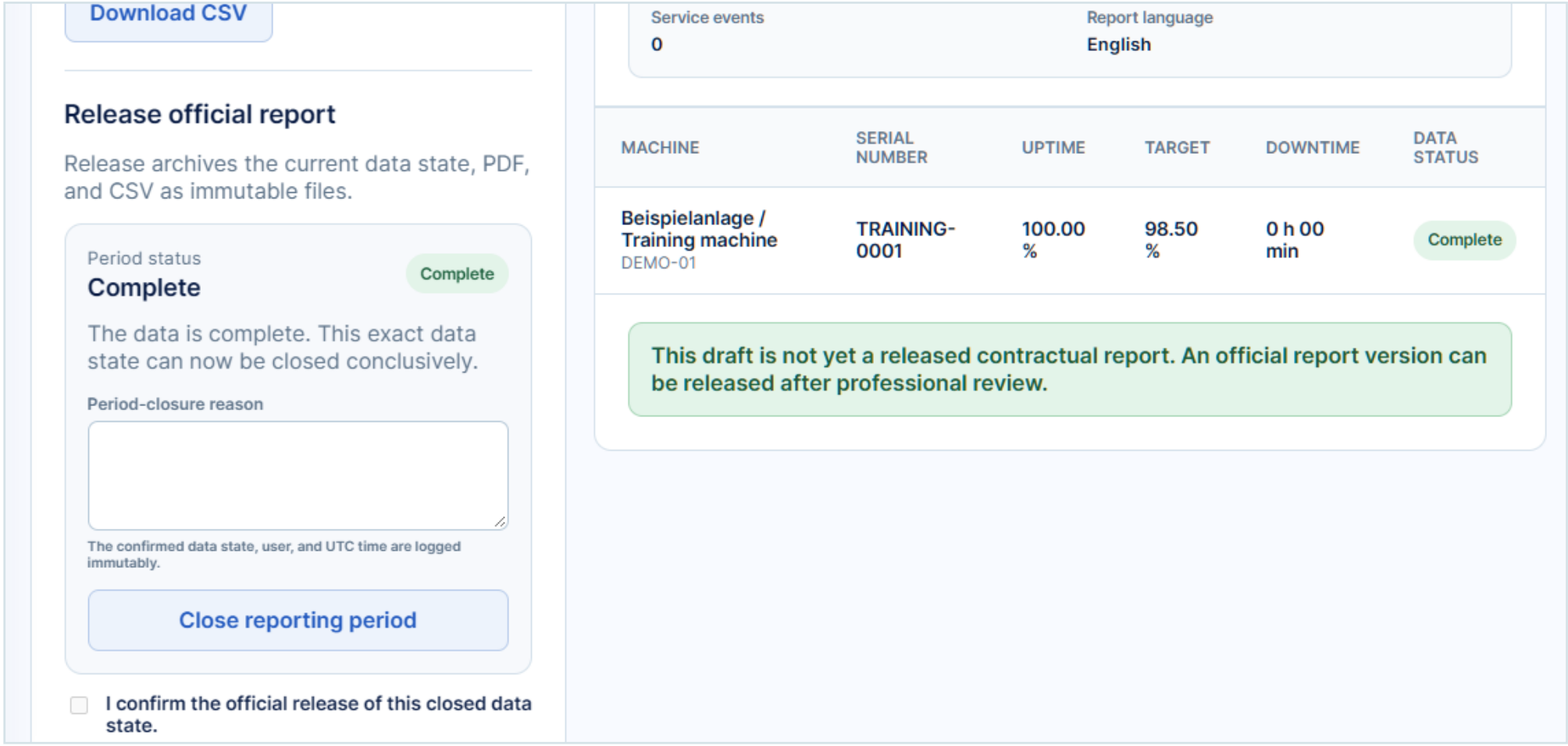
State which scope and period you checked, the report language, whether it is a draft or official version, and the unresolved issue if any. Do not send an isolated percentage without its context.

**Figure 19.1 | Synthetic preview: check scope, period, basis and Complete status before release. This service-manager view illustrates controls; readers without release rights must not release.**



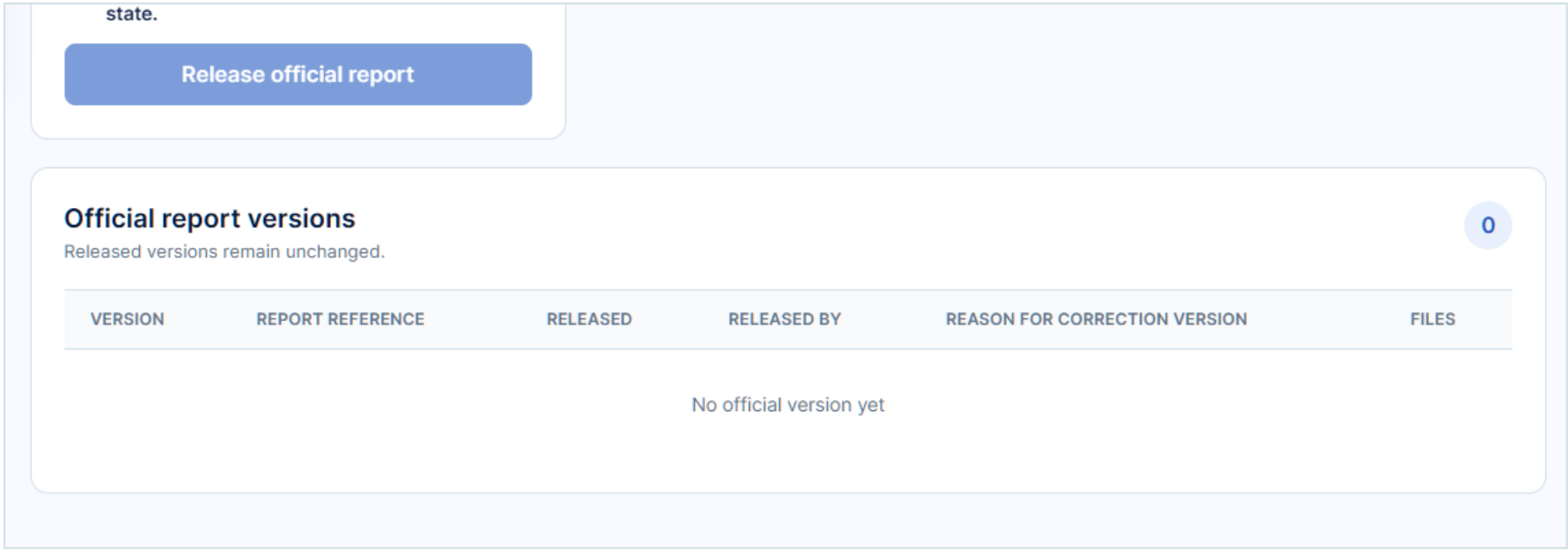

Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

**Figure 19.2 | Synthetic preview: check scope, period, basis and Complete status before release. This service-manager view illustrates controls; readers without release rights must not release.**




Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

**Figure 19.3 | Synthetic preview: check scope, period, basis and Complete status before release. This service-manager view illustrates controls; readers without release rights must not release.**




Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

# 20 Official release: verify the exact state

## Before release

Confirm that source imports, factual corrections, same-fault relationships, effective rules, machine dates and billing coverage have been reviewed. A complete data status is necessary but is not a substitute for your substantive approval.

1. Generate a fresh preview for the intended scope, dates and language.

2. Resolve relevant open cases through their proper workflow. Do not delete source records merely to remove a release block.

3. Enter a specific closure reason of at least ten characters. Explain the data state checked, rather than using repeated filler characters.

4. Close the reporting period through the displayed action. Check the resulting status.

5. Select the explicit confirmation for official release of that closed data state.

6. Release officially and wait for the archive confirmation. Record reference, version and approval information.

7. Open the archived PDF and CSV. Check that they belong to the same issue and that sender, dates, scope, language and amounts are correct.

8. If only the download failed after archiving, retrieve the existing issue. Do not create another official version just to retry a download.

## When source data changes afterwards

Recalculate and review a new draft. Close the new data state and use a meaningful correction reason for the subsequent version. The earlier official file remains historical evidence. Never reset version numbers by removing old releases simply to make the latest issue look like version 1.

## Stop conditions

Do not release with unresolved relevant review, unexplained missing coverage, the wrong effective price or an unidentified source event. Escalate the particular reference and blocker to its responsible owner.

# 21 Reading maintenance amounts and deductions

## Read the effective contract, not an assumed default

The monthly amount, currency, target and deduction tiers are configurable contract values. A target percentage is not automatically the boundary of the first deduction tier. Inspect the actual effective rule used in the report.

1. Read the contract version and validity period. If a reporting period spans more than one rule, inspect the relevant rows rather than assuming one rule applies to the whole period.

2. Check the monthly net maintenance amount per machine and the calendar days included. A partial month is based on the applicable days divided by that month's calendar-day count.

3. Check the availability shown for the relevant row and the configured tier thresholds. Follow the report's rounding convention; do not compare an unrounded spreadsheet value with a rounded displayed boundary without reconciling them.

4. Read maintenance base, deduction and payable net together. A displayed deduction percentage applies according to the configured tier; it is not automatically the percentage of downtime.

5. Check billed coverage before treating a new report as a wholly new charge. Existing intervals can contain gaps; a single latest billed date does not explain all coverage.

6. Reconcile with external invoicing separately. A Uptime report does not prove that an accounting invoice was posted or paid.

## Synthetic arithmetic example

A fictional net monthly amount of 1,000.00 EUR for a full month and a 15 percent deduction gives 150.00 EUR deduction and 850.00 EUR payable. Ten eligible days in a 30-day month give an unrounded base of 333.333... EUR; the report's row rounding must be used consistently when checking the resulting cents.

## Illustrative tier scheme - not a preset

If a contract says 98.00 percent and above: no deduction; 95.00 to 97.99: 15 percent; 90.00 to 94.99: 25 percent; below 90.00: 35 percent, verify that the actual configured upper thresholds represent 97.99, 94.99 and 89.99 with the corresponding deduction rates. Do not assume that a previously entered 94.99/89.99/89.98 sequence represents that scheme.

# 22 Ticket board: interpret before acting

1. Open Service manager - Tickets when that navigation item is available to your role.

2. Set the intended airport or machine scope. Choose a filter such as open, down, overdue, unassigned, technically resolved or review according to the question you are answering.

3. Open a relevant item and read the original fault, subsequent work and current operational state. Ticket workflow status and physical usability are related but distinct.

4. Read ownership, priority, planned review and any handover state. A read acknowledgement is not an accepted handover.

5. Check whether the last service intervention restored the machine or merely finished one visit. Technical resolution may still require closure review.

6. Compare the timeline with the actual service records. If a cause relationship or timestamp is wrong, route the underlying correction to the responsible service role.

7. Refresh after a completed action and verify the changed state. Do not infer success from a button click alone.

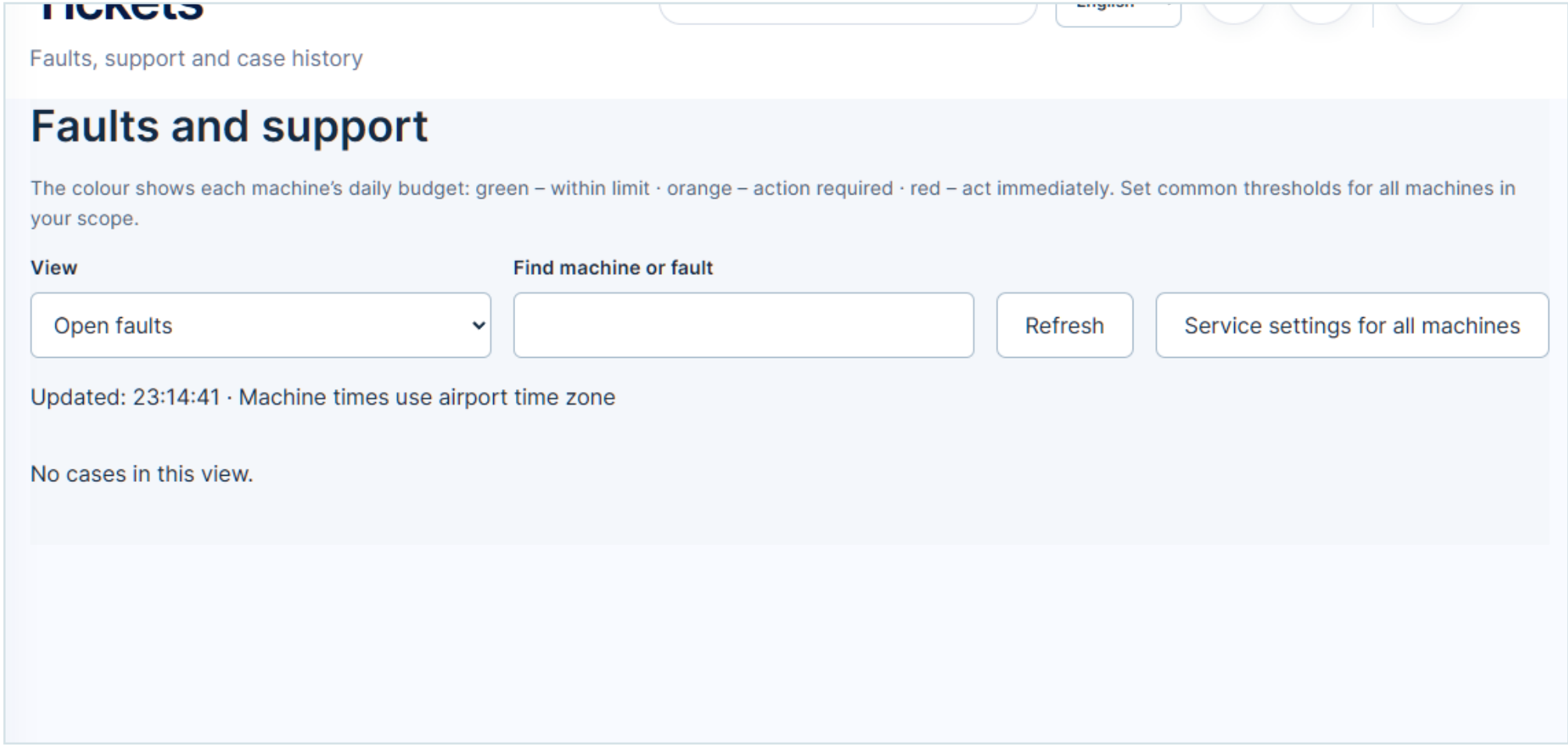
## Permission boundary

The auditor uses this screen as evidence and must not change ownership, state or review. Headquarters may see the board without having administrator configuration rights. Use only controls permitted by your assigned role; visible data is not authority to change it.

## Budget and notification interpretation

Service time-budget indicators and their warning colours are operational controls. Do not treat them as a replacement for contractual uptime deduction rules. Notification delivery depends on the installation's configured channels; the absence of an email does not prove there is no open fault. The illustrated training system has outbound mail disabled.

**Figure 20 | Ticket board: interpret before acting: actual manager role view with synthetic data.**




Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

# 23 Ticket coordination: owner, follow-up and closure

## Assign and follow up

1. Start with the open, unassigned or overdue queue. Open the exact ticket and verify its machine and cause.

2. Review the current owner and any pending handover. Use the available assignment or handover action only when the selected person is responsible and permitted for the scope.

3. Enter a clear next action and review time where the workflow requests them. A deadline without an action or owner is not an adequate operational handover.

4. Distinguish initiating a handover from its acceptance. Verify the resulting handover state rather than assuming the recipient has taken over.

5. When a new intervention is recorded, inspect the changed operational state and outstanding work. Acknowledgement alone does not resolve the fault.

6. For a technically resolved item, check the restoration evidence and any open functional review before completing the applicable closure process.

7. Save the allowed action, wait for confirmation and reopen the ticket to check owner, state and history.

## Correct the right object

An incorrect service interval belongs in the service correction process. A wrong owner belongs in ticket coordination. A wrong contract price belongs in effective contract administration. Do not use one of these as a substitute for another to make a report pass.

## Daily control

Review down machines, overdue reviews, unassigned work and unresolved functional cases. Escalate urgent operational issues through the agreed real-world contact route. Software records support that route; they do not replace emergency response or physical safety procedures.

# 24 Backup controls and recovery handoff

1. Open Data backup and check the selected scope. A recent backup for another scope is not proof that this one is covered.

2. Read the last successful backup information and any overdue warning. A warning describes backup evidence, not necessarily the application's current availability.

3. Use the permitted create-backup action and wait for its final result. Do not treat a running request as a completed backup.

4. Save or transfer the resulting file according to the authorised storage process. Protect it as sensitive material; a backup may contain personal data, operational records and system configuration.

5. Retain identifying metadata and a verified checksum through the organisation's process. Keep backups separate from public manuals and ordinary report attachments.

6. Ask the system administrator to perform a restoration test in an isolated target. Do not restore over a live installation to check whether a file works.

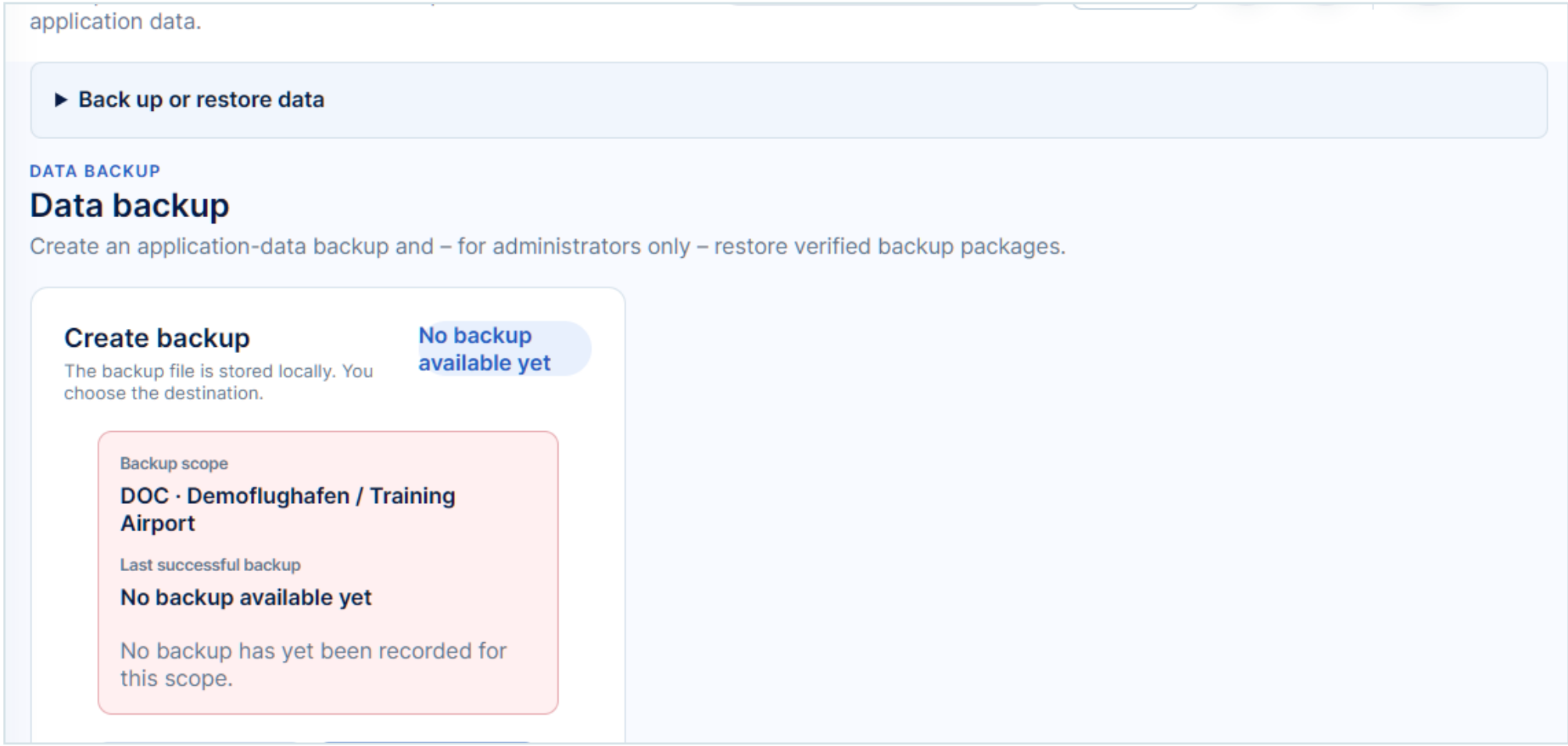
## Application scope versus full server recovery

A user-created scope backup must not be assumed to include every identity database, encryption key, configuration file and container image required for disaster recovery. Full recovery needs the matching administrative backup and installation procedures. The ability to download a file is not proof of recoverability.

## Role boundary

The service manager can create backups within the permitted scope. Infrastructure restoration and credential handling belong to the authorised system administrator. This user handbook does not authorise destructive recovery commands on a live server.

**Figure 21 | Backup controls and recovery handoff: actual manager role view with synthetic data.**




Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

# 25 Troubleshooting decision guide

## I cannot see the expected machine

Check your signed-in identity and active scope. Confirm the machine's serial number with the manager. An external account needs an explicit machine assignment. Do not use another asset or shared account to get past the empty list.

## A service record is missing from the list

Check the confirmation reference first, then airport, machine, date range and time zone. An overnight interval may appear on a neighbouring local date. Check the current archive or import disposition before resubmitting.

## The correction was saved but the old state is visible

Wait for the completion refresh. Reopen the view or reload only after checking that the save completed. Compare the exact event or source-row reference. If the mismatch persists, capture the current message and refer it to support; do not create a duplicate as a workaround.

## Review is still open

A saved intervention can legitimately require functional review. Original file issues, current row status, a fault-case review and the report-period status are separate. Locate the precise remaining case and have the responsible person resolve its facts.

## The percentage differs from an archived PDF

Compare scope, dates, language, rule version, measured versus rule-based input, service revisions and report version. An archived file represents its released data state; a fresh draft can incorporate later corrections.

## A save or download failed

Read the exact message. If saving was unconfirmed, check the same submission before recreating it. If archiving succeeded but downloading failed, retrieve the existing archived file rather than releasing another version.

## A permission error occurs

Stop the attempted action and verify the role and scope. A missing permission is not a reason to alter the URL, share an account or disable authentication. Send the administrator the intended task and affected scope.

## Support information to retain

Record the time and time zone, application version, role, screen, machine/event/report reference, exact action, exact message, whether confirmation was received and whether the problem persists after reopening the view. Remove secrets and unrelated records from screenshots.

## What not to promise

No user-facing success message certifies that every downstream business process is complete. A service save is not physical restoration, a draft is not approval, an official report is not an accounting posting, and a downloaded backup is not a tested restore.

# 26 Role-specific practice and readiness checklist

Use a designated training environment. These exercises are practice tasks, not evidence that a real customer procedure has already passed.

## Exercise 1: Correct a ten-minute intervention

In training, review a record where two technicians reported 20 person-minutes but start/end are 12:00/12:10.

Expected result: Elapsed duration remains ten minutes. Correct actual timestamps if wrong; do not adopt multiplied labour effort.

Record the scope, evidence reference and reviewer conclusion. Stop if the expected result cannot be demonstrated.

## Exercise 2: Resolve the release blocker

Locate the exact relevant review case, read its source and decide the factual relationship through the authorised workflow.

Expected result: The report can become releasable only when its relevant unresolved state is genuinely cleared.

Record the scope, evidence reference and reviewer conclusion. Stop if the expected result cannot be demonstrated.

## Exercise 3: Check a subsequent issue

Correct a synthetic stored event, generate a new draft and compare it with the earlier archived issue.

Expected result: The draft reflects current data; the historical issue is unchanged and the next official release is versioned.

Record the scope, evidence reference and reviewer conclusion. Stop if the expected result cannot be demonstrated.

# 27 Glossary and document control

Scope: the airport or machine covered by your active assignment or selected report.

Effective date: when a business rule or master-data revision applies; it can differ from the time the change was recorded.

Revision: the current or historical state of a source record. It is not the same as an official report version.

Fault case: the explicitly linked cause relationship used to distinguish a continuation from a new fault.

Allowance: the configured threshold for eligible fault duration, not an amount always subtracted after exceedance.

Elapsed duration: real time between start and end, independent of the number of technicians.

Draft: a calculated preview that has not been officially released.

Period closure: confirmation of a particular checked data state before official release.

Official version: immutable archived output with its release information.

Measured availability: availability derived from imported machine measurements.

Rule-based availability: availability calculated against the configured contractual operating basis and relevant service evidence.

MFA: multi-factor authentication; a second factor in addition to the password.

## Documentation basis

Application: Uptime Control 2.0.0-alpha.1. Documentation edition: 25 November 2026. Core workflows and historical illustrations are retained from the preceding edition. New V2 procedures are based on the local source and pilot evidence of 21/22 November 2026. This document does not claim a new production or security acceptance.

This documentation does not change software, grant additional rights, certify every possible security condition or replace the installation-specific operating agreement. Screenshots may show a different number of sample records or a browser-dependent date format.

Keep this handbook with the matching software edition. Recheck procedures when the application, roles, contract configuration or identity policy changes.

# 28 Permissions before the first intervention

## Establish responsibility

Administrators manage users and grants. WarehouseManager is assigned to a site; it is not a general technician or report-release role. The responsible service department can also manage inventory within its authorised site. A technician does not automatically receive full warehouse access.

1. Identify the responsible site and machines. Use personal accounts rather than shared logins.

2. Assign the appropriate role and scope in user administration. Assign warehouse managers at site level.

3. Sign in with a training account carrying that role. Only authorised sites and machines should be available.

4. Test one allowed read and write workflow with synthetic data. Check an unrelated site as a negative case: access must be denied.

5. If a machine is missing, check assignment and active status. Do not replace everyday access with an administrator account.

## Common messages

No machines assigned: check the account and assignment. Ticket module not enabled: ask administration to check module configuration. No warehouse permission: check role and site scope rather than repeatedly submitting.

Material withdrawal linked to a service record remains tied to the authorised intervention and machine. The warehouse role alone does not grant permission to correct service records or release official availability reports.

# 29 Service record: machine, times and initial state

## Prepare

You need an assigned machine, actual intervention start and end, and the observed machine state. Do not present an estimated downtime start as a confirmed fact.

1. Open the service workspace. Select the machine and compare its identifier and site.

2. Check intervention start and end. Prefilled times are suggestions and must match the actual visit.

3. Use the machine time zone. During a daylight-saving transition, explicitly select the first or second occurrence of an ambiguous local time.

4. Select the initial state: machine stays operational; you stop it because of the fault; it is already down because of the fault; or scheduled maintenance shutdown.

5. For your own shutdown, enter the actual stop time. If already down, state whether the onset is known. Enter an evidenced time when known; otherwise choose Unknown.

6. Select Continue. Resolve required-field and time errors first.

## Check the result

Intervention time measures the work. Downtime may begin before the visit or end before the work finishes. The two intervals can therefore differ. An unknown onset requires clarification; a guess must not become a confirmed historical stop time.

## Example

Machine down from 08:30, visit 09:00-10:00, restored 09:30: 60 minutes of work and 60 minutes of actual downtime before application of the evaluation rule.

# 30 Repeat interventions and the original fault

1. Read the existing notices and interventions after selecting the machine.

2. Choose Yes, the same fault; No, a new fault; or Not sure - request review.

3. For the same fault, explicitly confirm the appropriate original record. A shared date or machine does not prove a shared cause.

4. Add new findings. Do not replace the original description with an invented new fault.

5. If uncertain, allow a review case to be created and inform the service manager. Official release for the affected period waits for clarification.

## Common mistake

A machine was restored and fails again later. Do not select a new fault solely because it happened later: the confirmed causal relationship matters. Conversely, two unrelated causes do not automatically form one continuous outage.

## Concurrent changes

If the machine context has changed, review the current relationship again. The designed response preserves your text. Submit only after reviewing; do not open a second browser to bypass the check.

# 31 Fault code and guided procedure

1. Copy the displayed fault code exactly. For a known code, compare the message, component/sensor group and installation position.

2. If machine, message or position does not match, clarify the mapping with the service manager. The procedure is guidance, not a substitute for safety authorisation at the machine.

3. With no code or an unknown code, manually choose an appropriate published route. Do not invent a similar code.

4. Perform the displayed work instructions in order. Select answers only after carrying out the actual check.

5. Your answer leads to the next step or a final action. Confirm only work actually performed.

6. If the template changes during entry, select the procedure again when prompted. Do not combine old and new template revisions.

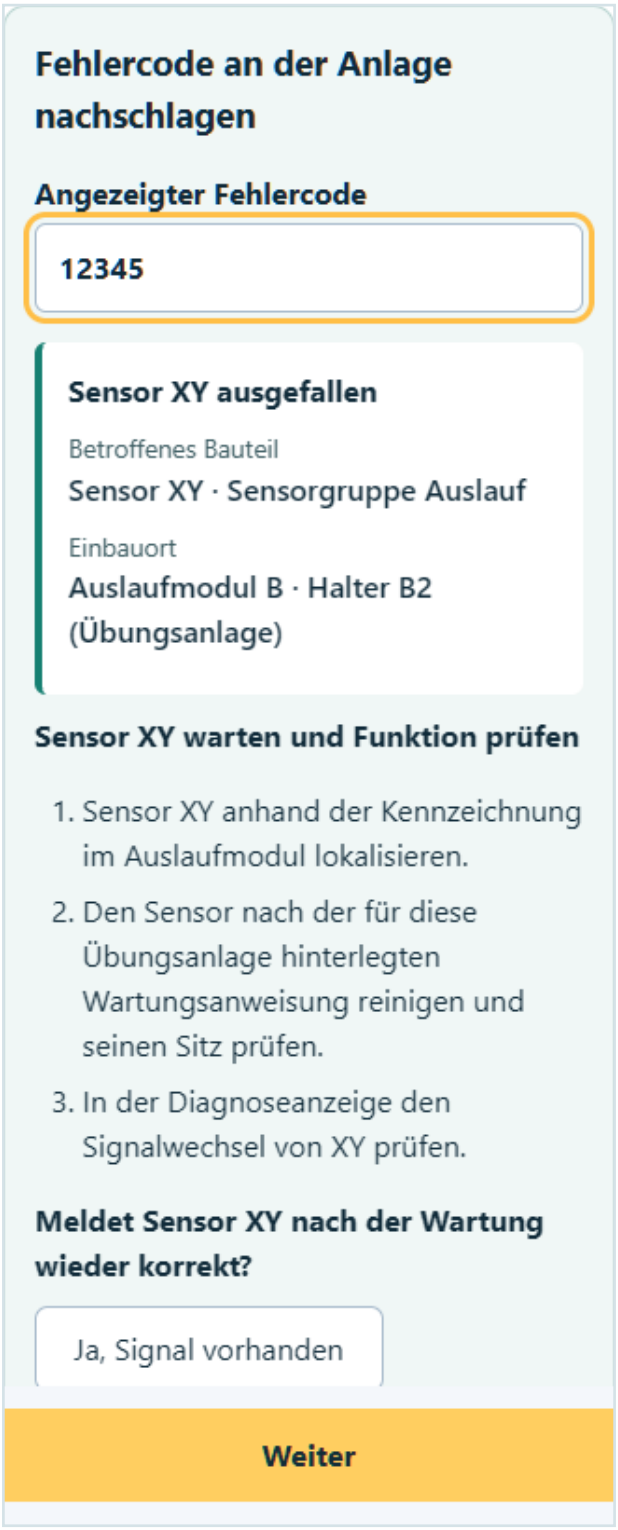
## Example

Training code 12345 maps to sensor XY. Compare its location and message, perform the prescribed test and choose the observed result. The code alone does not prove the sensor must be replaced.

## Check

The review includes the selected procedure. Before saving, ensure the selected answers agree with your observations.

## Figure 22 | Fault code and guided procedure




Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

# 32 Spare parts in the service record

1. After following the procedure, inspect the spare parts allowed for the final action. Compare part number and description.

2. Choose the actual warehouse location and quantity withdrawn. Stock at another location is not stock at the selected location.

3. Do not record a reservation as a withdrawal. Confirm only material actually taken for this intervention.

4. In the final review, check item, quantity and location. Changing the procedure can invalidate an earlier parts selection; review it again.

5. After a successful save, inspect the service record and related stock movement. If transmission is unclear, retry the same submission rather than creating another withdrawal.

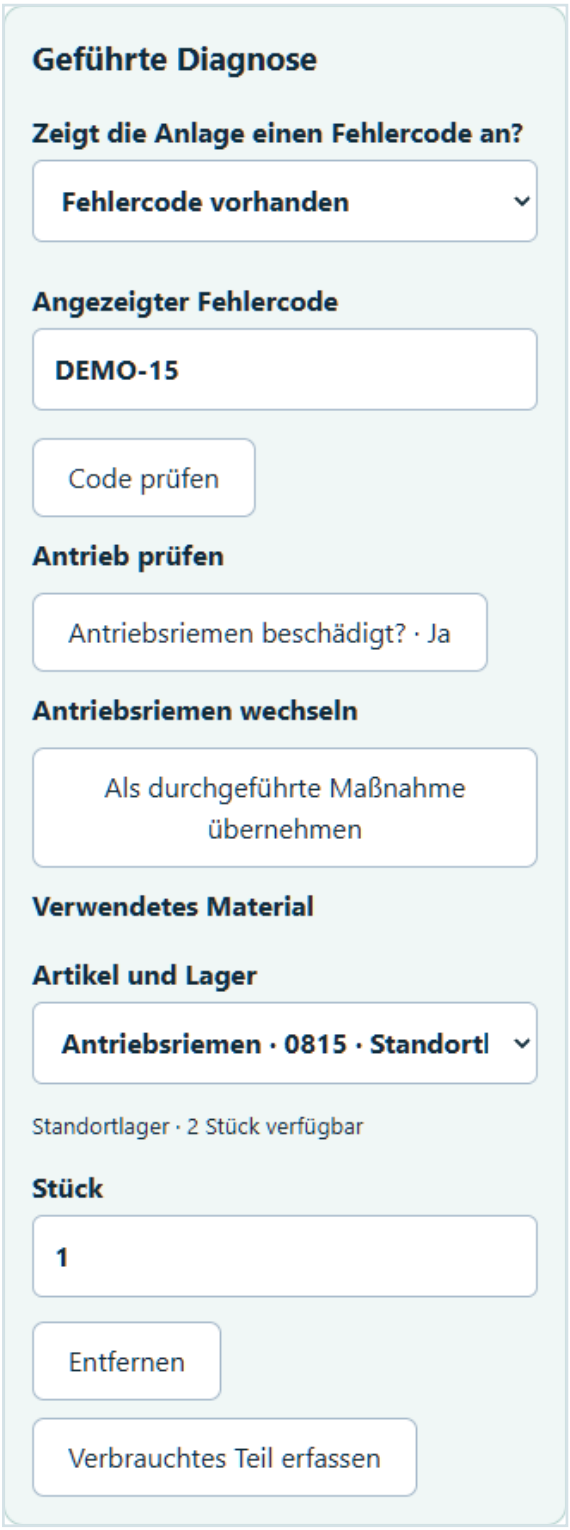
## Insufficient stock

After rejection, reload the current quantity and consult warehouse staff. Do not use a negative quantity or a false location as a workaround. If stocktaking locks the location, wait for release or clarify the actual permissible material route.

## Returns

Return unused material already posted through the authorised warehouse function, referencing the original withdrawal. A return is a new traceable transaction; do not delete the original evidence.

## Figure 23 | Spare parts in the service record




Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

# 33 Final state, restoration and saving

1. Record work performed and the functional check with its result. A bare “done” does not explain the intervention.

2. Explicitly select Operational, Provisionally operational, Still out of service or Further action required.

3. For an operational machine, confirm the actual restoration time. This ends the recorded outage; the work may finish later.

4. If further work is needed, enter the next action and review time. For Further action required, also confirm whether the machine is usable, not usable or its usability is unconfirmed.

5. On Review, read machine, times, initial state, cause, original fault, procedure, parts and final state together.

6. Select Save record. Wait for the confirmation that the service entry and ticket have been saved, and retain the displayed references.

## Calculation example

Visit 09:00-10:00, machine stopped at 09:00 and restored at 09:20: 60 minutes of work but 20 minutes of downtime before contractual evaluation. Work duration is not automatically downtime.

## Unconfirmed transmission

Use Check submission again for the same submission. Do not create a replacement while the original result is unknown. Without connectivity, use the agreed telephone route for urgent faults; a local draft does not notify service management.

# 34 Separate scheduled maintenance correctly

1. For a planned shutdown, select Scheduled maintenance shutdown. Do not rename a real fault as maintenance.

2. Check intervention and shutdown times. Describe maintenance work and the functional check specifically.

3. Confirm final state and actual restoration just as for other interventions.

4. Before saving, verify that the record is still classified as maintenance.

5. In evaluation, distinguish maintenance time from fault-related time. Pure scheduled maintenance must not be treated as a fault alarm without a factual basis.

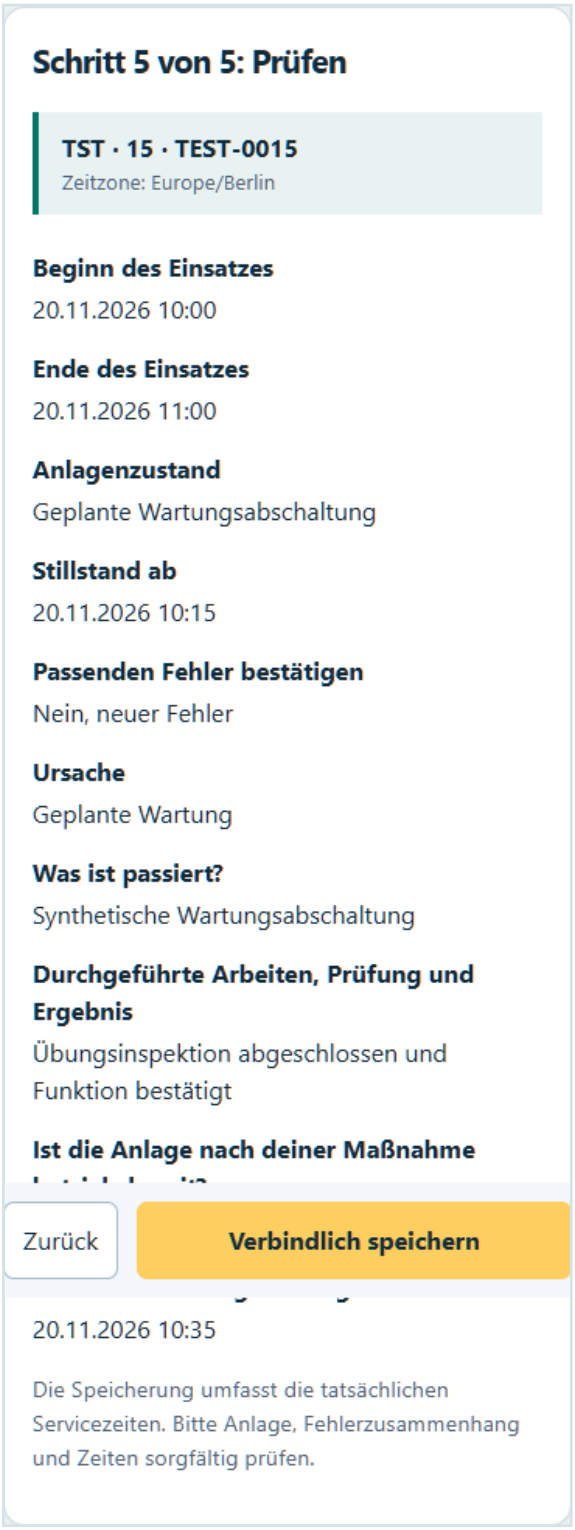
## A fault discovered during maintenance

Record the observation and its time clearly. Ask the responsible service manager to review the distinction instead of assigning the whole duration to one cause automatically.

## Check

Carry the maintenance classification through the subsequent review. A successful functional check does not replace an accurate timestamp; both are required.

## Figure 24 | Separate scheduled maintenance correctly




Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

# 35 Service manager: create and publish procedures

## Prepare

Define a responsible procedure for each site and machine type. Maintain permitted spare parts in the relevant warehouse first. Use only approved manufacturer and work instructions.

1. Open Prüfwege verwalten (Manage procedures) for the correct machine type. Compare the displayed type and revision.

2. Choose Neuer Arbeitsweg (New procedure) or edit an existing one. Give it an unambiguous name.

3. Separate fault codes with commas; leave blank for routes without a code. Add the machine message, component/sensor group and physical position.

4. Enter a question or action for the first step. Add ordered work instructions, one instruction per line.

5. For a decision, choose Antwort mit Folgeschritt hinzufügen (Add answer with next step), name the answer and edit its next step. Every relevant answer needs a meaningful continuation.

6. At a final action, select allowed spare parts. Parts belong to final actions, not an unanswered decision.

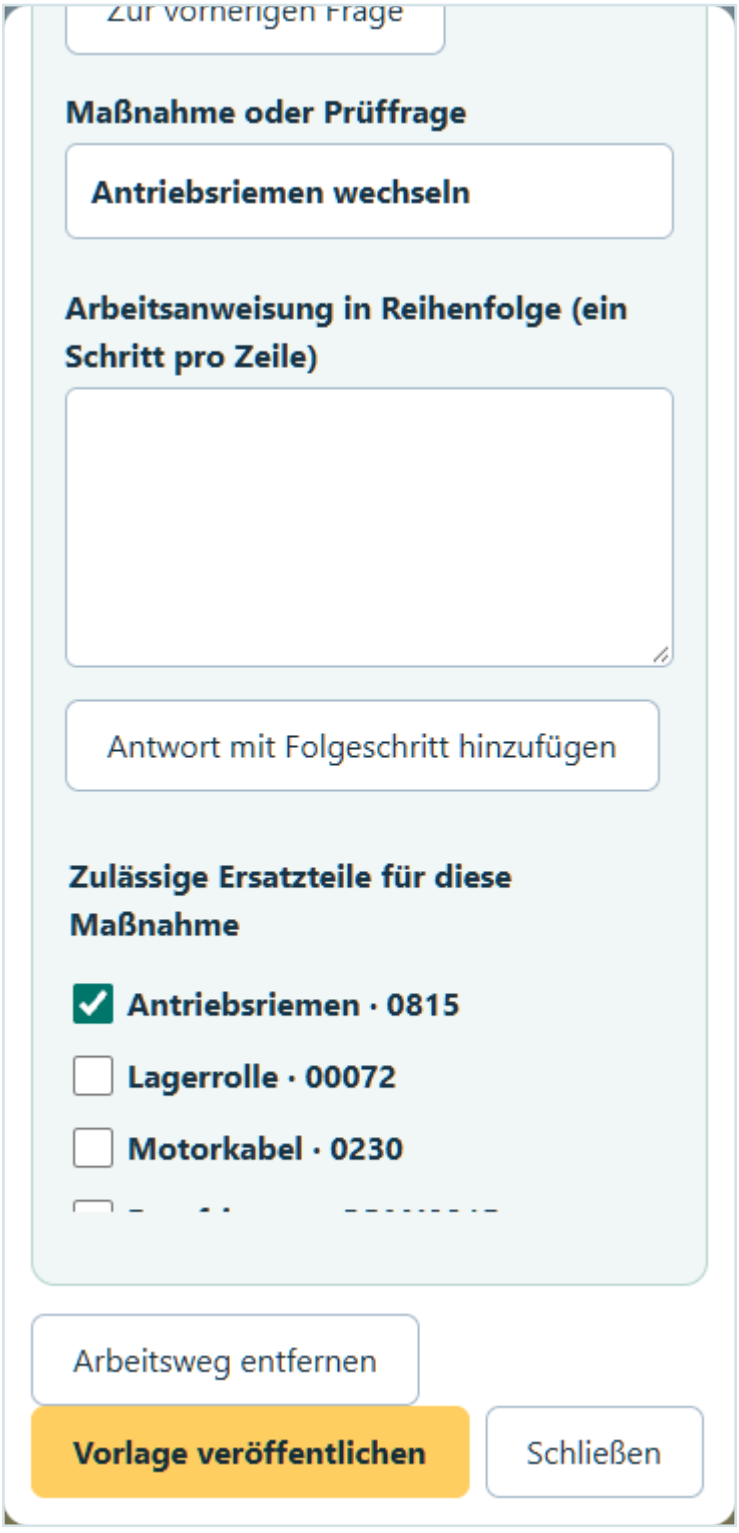
7. Review every branch. Correct ambiguous instructions, dead ends and conflicting parts assignments before publication.

8. Select Vorlage veröffentlichen (Publish template) and wait for confirmation. Test the known-code and manual entry paths on a training machine.

## Changes

Removing an answer also removes its descendants from the next revision. Converting a final action into a question removes its parts mapping. Read confirmation dialogs fully. Closing with unsaved changes does not publish them.

**Figure 25 | Service manager: create and publish procedures**




Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

# 36 Service overview and open cases

1. Check your responsibility scope and filter in the service overview. Counts refer to the visible scope.

2. Select the count of open faults, overdue reviews or pending closure reviews to open the matching case list.

3. Compare the machine and original fault. Read previous interventions, final states and next steps in the history.

4. For continuing downtime, verify responsibility, next action and review time. A missing spare part needs a specific procurement action, not just an open status.

5. Resolve factual uncertainty, such as an unknown onset or unclear repeat-fault relationship, before official report release.

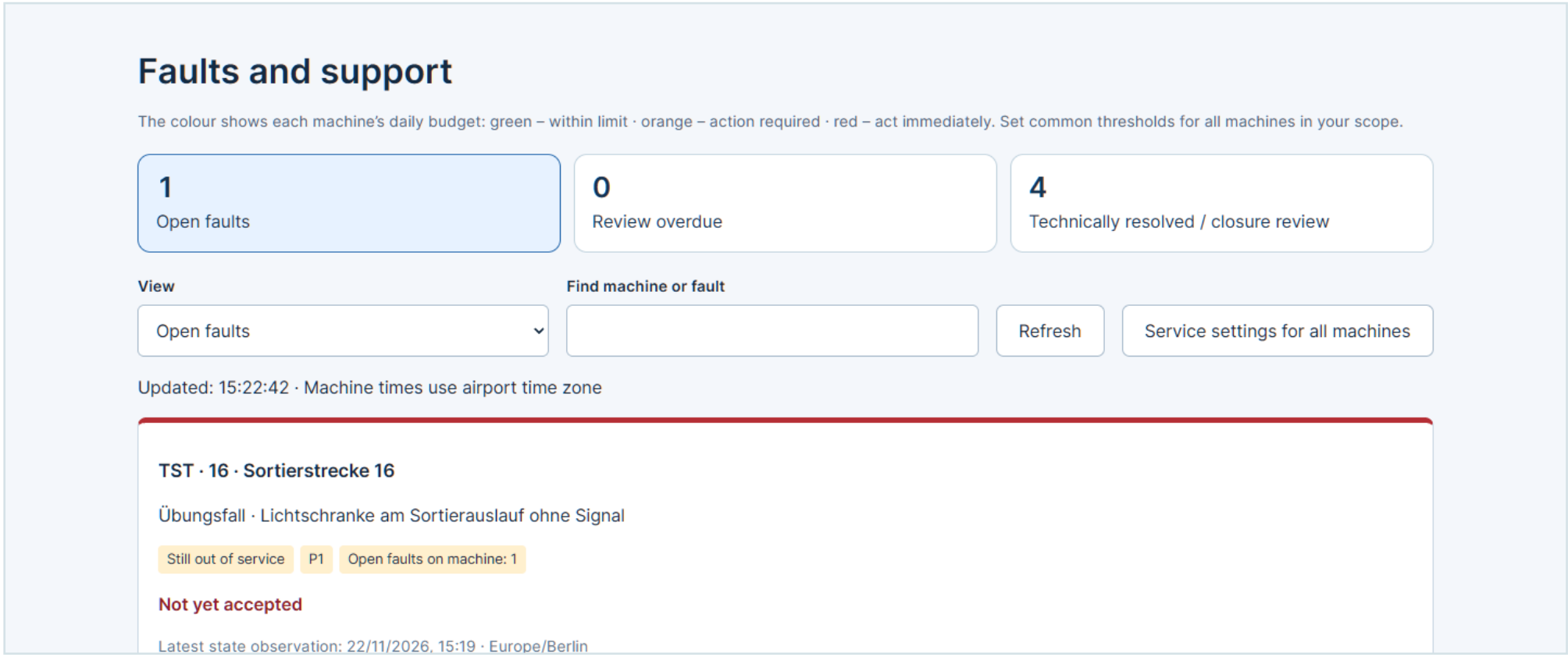
6. Reopen the case after changes and check that its current state and the count agree.

7. If a search has no results, use Alle Fälle anzeigen (Show all cases), then narrow the filter again.

## Example

A machine is waiting for a replacement sensor. Arrange the sensor, identify the responsible person, set a review time and perform the functional test afterwards. Only confirmed restoration ends the actual outage; completing procurement alone does not.

## Figure 26.1 | Service overview and open cases




Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

## Figure 26.2 | Service overview and open cases




Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

# 37 Distinguish escalation and the downtime indicator

1. Have the agreed response deadlines and site day boundaries available before changing settings.

2. Open the preview in service settings and select an example time.

3. Examine transitions from E0 to E3 and their deadlines. Check boundary cases immediately before and after a deadline.

4. Save only once the preview matches the agreed process. Read back the saved values afterwards.

## Two different timelines

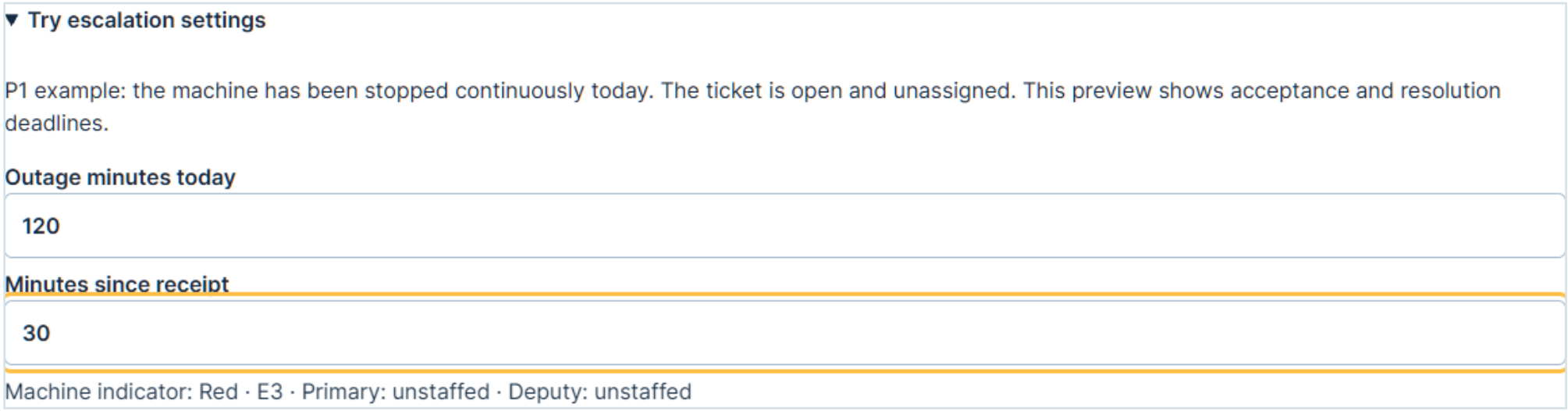
Escalation deadlines concern receipt of the notification and the response. The machine indicator uses downtime documented in the service record. A late entry can therefore contain an actual outage longer than the time since notification.

Scheduled maintenance does not trigger a fault alarm in this build. Check classification before treating an expected alarm as missing.

## Team verification

Document the agreed escalation and organisational notification route. An overview indicator alone does not prove that a particular person has read a message.

## Figure 27 | Distinguish escalation and the downtime indicator




Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

# 38 Find and assess stock

1. Open the warehouse and select your site. Check the site again before every posting.

2. Select “Bestände” (Stock). Search by article number or description and narrow the storage location.

3. Check article number, location and actual on-hand stock. Similar descriptions at different locations do not automatically identify the same stock record.

4. Compare minimum stock, target stock and outstanding orders. An open order is not physical stock.

5. Use “Bewegungsjournal” (Movement journal) to investigate differences. Check movement type, quantity, source and destination, time, operator, reason and linked service event where applicable.

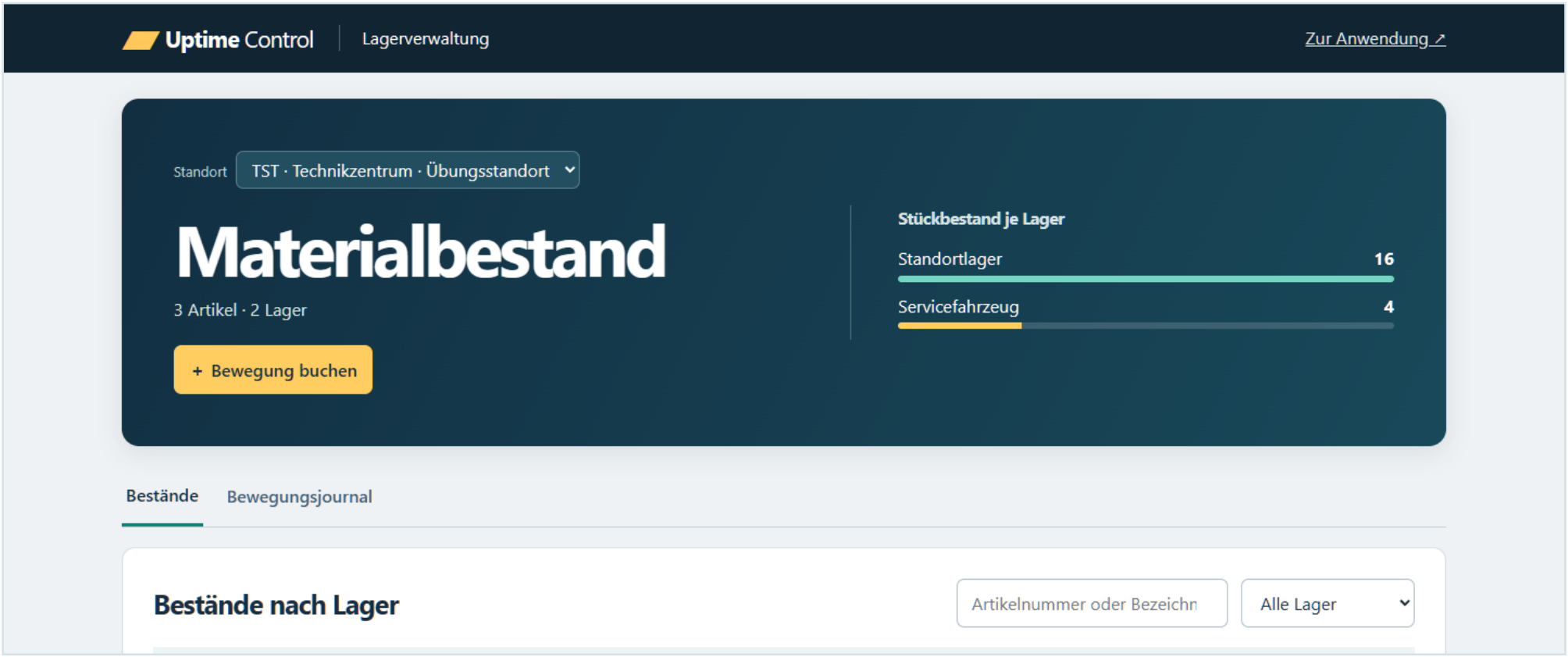
## Example

Location A-01 holds three belts and two more are on order. Three can be issued now, not five. Only a posted receipt increases stock.

## Empty view

Check site, location and search text. Clear filters before creating another article. An administrator must resolve missing site permission; creating a duplicate article will not solve it.

## Figure 28.1 | Find and assess stock




Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

## Figure 28.2 | Find and assess stock




Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

# 39 Article master data and shelf labels

1. Open “Artikelstamm” (Article master data) and choose the storage location.

2. Create the article with a unique article number and a clear description. Verify the location before saving.

3. Add a barcode and supplier if required. The barcode must match the article actually used.

4. Enter minimum and target stock as non-negative whole numbers. Target stock must not be lower than minimum stock.

5. Save and find the article again. Compare its number, description and location.

## Editing an existing article

Article number and location cannot be freely renamed after creation. Edit the available master-data fields. Do not create uncontrolled replacement records for a wrong assignment; agree the correction with the responsible person.

## Print a shelf label

Open the article label function. The preview contains description, article number, location and a QR code based on the barcode or article number. Open browser printing, choose the printer and paper, and inspect the preview for clipping.

Print a sample first. Scan it at the actual shelf and verify the identified article. A screen test does not replace testing a printed label.

## Automatic ordering

This setting creates or supports internal procurement records. This build does not send an order to a supplier. External ordering remains a separate task.

# 40 Receipts, transfers and corrections

## Before every posting

Select site, article and location. Verify the physical event and quantity. Provide a meaningful reason; an adjustment must not conceal an unresolved error.

## Goods receipt

1. Select “Wareneingang” (Receipt) and the destination location.
2. Count the quantity actually received and compare article and delivery note.
3. Enter quantity and a recognisable reference in the notes.
4. Post once, then verify stock and movement journal.

If an internal order exists, use its delivery function. This also updates outstanding quantity; do not post the same delivery manually as well.

## Transfer

1. Select “Umlagerung” (Transfer), article, source and destination.
2. Check sufficient stock at source and confirm neither involved location is locked by stocktaking.
3. Enter quantity and reason, confirm once and verify both balances.
4. Physically move the goods. A posting alone does not move them.

## Positive / negative correction

Use corrections for investigated stock discrepancies outside an active stocktake. Explain the cause and agreed action. Use the stocktaking function for a systematic count.

## Handling errors

For insufficient stock, first check article, location and quantity. For a stocktake lock, contact the responsible person; do not bypass it with another article. After an uncertain response, inspect journal and stock before creating a new posting.

# 41 Issues and traceable returns

## Issue

During service work, record parts actually installed or consumed in the related service event. Warehouse staff can use the offered warehouse issue transaction. Check the event assignment and avoid posting the same consumption through both routes.

1. Select article, source location and quantity actually issued.
2. Check stock and the service event where applicable.
3. Post and verify the journal entry and reference.

## Return

1. Open “Rückgabe” (Return) and select the original issue as reference.
2. Verify article, original event and quantity physically returned.
3. Inspect the part. Do not return defective items to usable stock without an agreed operational process.
4. Enter the permitted return quantity, location and reason, then confirm.
5. Verify the new balance and link to the original issue in the journal.

## Example

Two sensors are issued for a job; one is installed. Return the unused sensor against the original issue. Do not overwrite the original issue or use a negative issue as a substitute.

## Missing reference

If the original issue is not offered, check site, article, event and permissions. Resolve the situation with the warehouse owner rather than selecting an unrelated event.

# 42 Procurement and partial deliveries

## Understand the requirement

A shortage indication appears when on-hand stock is below minimum and on-hand plus outstanding orders does not reach target stock. Additional demand is based on target minus on-hand and outstanding quantities.

Example: on-hand 2, minimum 4, target 10, already outstanding 3. Additional demand is 5. The three outstanding items are still unavailable for use.

## Record an order

1. Open “Beschaffung” (Procurement) at the correct site.
2. Review article, supplier, location, demand and existing open orders.
3. Choose “Bestellung erfassen” (Record order) and enter supplier and a positive whole-number quantity.
4. Save and verify outstanding quantity.
5. Send the order separately through the agreed supplier channel. This build does not dispatch supplier orders.

## Post a partial delivery

1. Open the matching order and its delivery function.
2. Enter only the quantity physically received. It must not exceed the remaining outstanding amount.
3. Confirm and inspect delivered versus ordered quantities, remaining balance and warehouse stock.
4. Post a later remainder against the same order.

Example: three of five ordered items arrive. After posting, three are delivered and two remain outstanding. An additional manual receipt would incorrectly double-count stock.

# 43 Article import with preview and verification

## Prepare the file

Supported formats are UTF-8 CSV, XLSX and structured tabular PDF. A scanned image PDF is not automatically a readable article table. Each import is limited to 1,000 records and 2,000,000 bytes.

Use clear column headings. Article number and description are required. Barcode, supplier, minimum and target stock can be mapped. Article numbers must be unique within the file. Stock limits must be non-negative whole numbers; target must not be below minimum.

## Validate and commit

1. Select the correct storage location first. The import applies to that location.

2. Choose the file and “Datei prüfen” (Check file).

3. Map each required target field to the matching source column. Do not reuse the same source column for different meanings.

4. Review the first records and total record count. Pay particular attention to leading zeros in article numbers and barcodes, and to special characters.

5. Resolve all reported errors in the file or mapping, then check again.

6. Only then select “Artikel verbindlich übernehmen” (Commit articles).

7. Find several imported articles in the master data and compare their values with the source file.

## Existing articles and stock

An existing article with the same number at the selected location is treated as a master-data update. Importing articles is not a goods receipt and creates no opening stock. Record physical quantities separately through warehouse transactions.

## Errors

For an unreadable PDF, use structured CSV or XLSX instead. Split oversized files into meaningful batches. After an uncertain result, inspect the article master data before committing again.

# 44 Prepare a stocktake and lock the location

## Preparation

Assign an owner, location, counting time and procedure for urgent issues. Resolve unexplained receipts and issues beforehand. Ensure articles exist at the location and labels are readable.

An active stocktake locks stock transactions at the affected location. Other locations can continue operating. Allow a realistic counting window and inform service and warehouse staff before starting.

## Start the stocktake

1. Open “Inventur” (Stocktaking) at the correct site.
2. Select the location to count and inspect its article list.
3. Start the stocktake and read the confirmation about the transaction lock.
4. Confirm only when the physical location is ready for counting.
5. Verify active status and the displayed location.

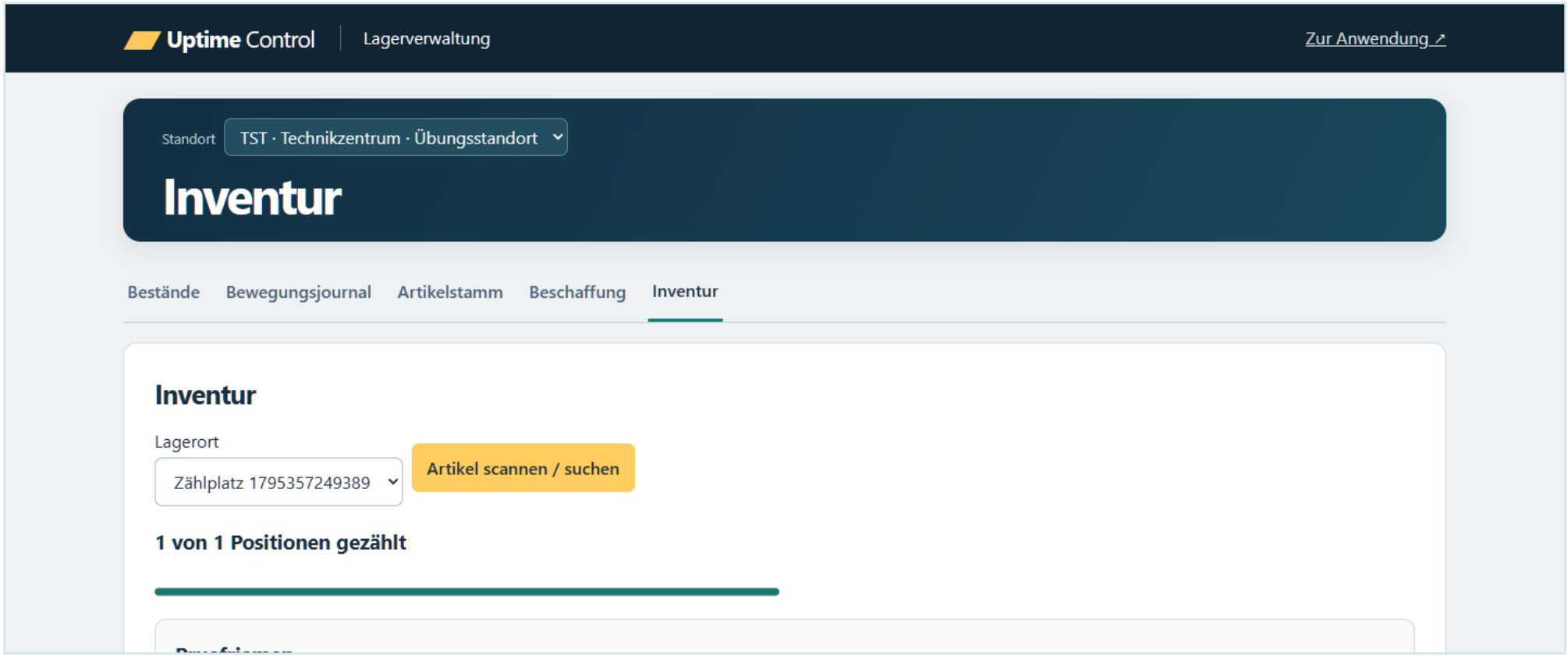
## What must stop

Do not make unrecorded physical movements at the locked location. Removing goods during counting distorts the result even if the application blocks the transaction.

## Urgent requirement

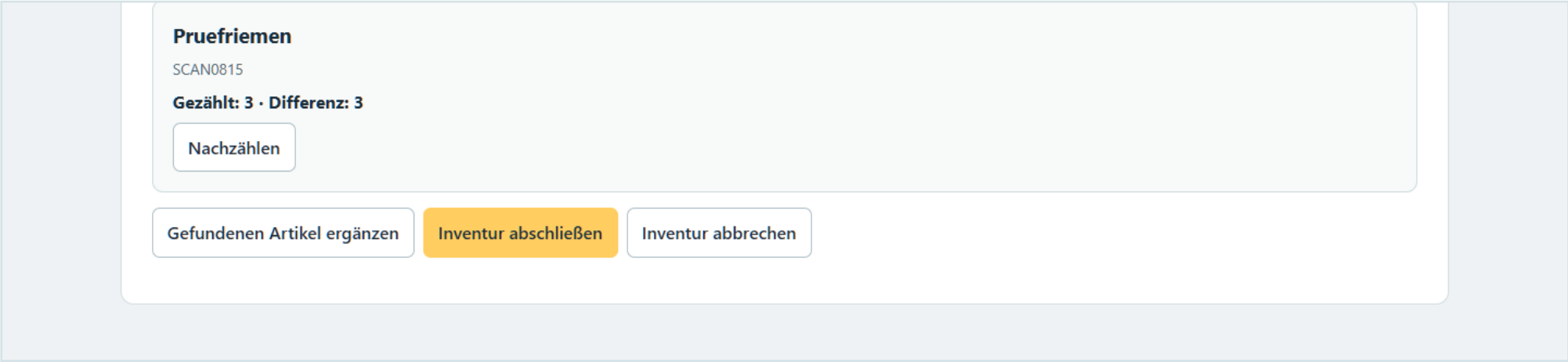
If an issue is unavoidable, the responsible person must decide whether to cancel the stocktake and restart after the movement. Do not work around the lock by posting a correction at another location.

## Figure 29.1 | Prepare a stocktake and lock the location




Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

## Figure 29.2 | Prepare a stocktake and lock the location




Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

# 45 Count, scan and recount

## Manual entry

1. Open the active stocktake and “Artikel scannen / suchen” (Scan / find article).

2. Enter article number or barcode and verify the identified article.

3. Count the physical items. Enter the complete counted quantity as a non-negative whole number. Zero explicitly means none present.

4. Save and verify the confirmed quantity in the list.

5. Repeat for every article. An empty field is not a confirmed zero count.

## Camera and handheld scanner

Browser camera scanning requires secure HTTPS, device permission and a supported camera. Grant access only to your own Uptime address. Hold the code steady in adequate light.

A connected handheld scanner can enter the code into the search field. Manual entry remains available. Always verify the article before saving a quantity.

The available continuous-entry option can return to the next scan after saving. This is not an offline mode; confirmed saving needs a server connection.

## Recount and unknown article

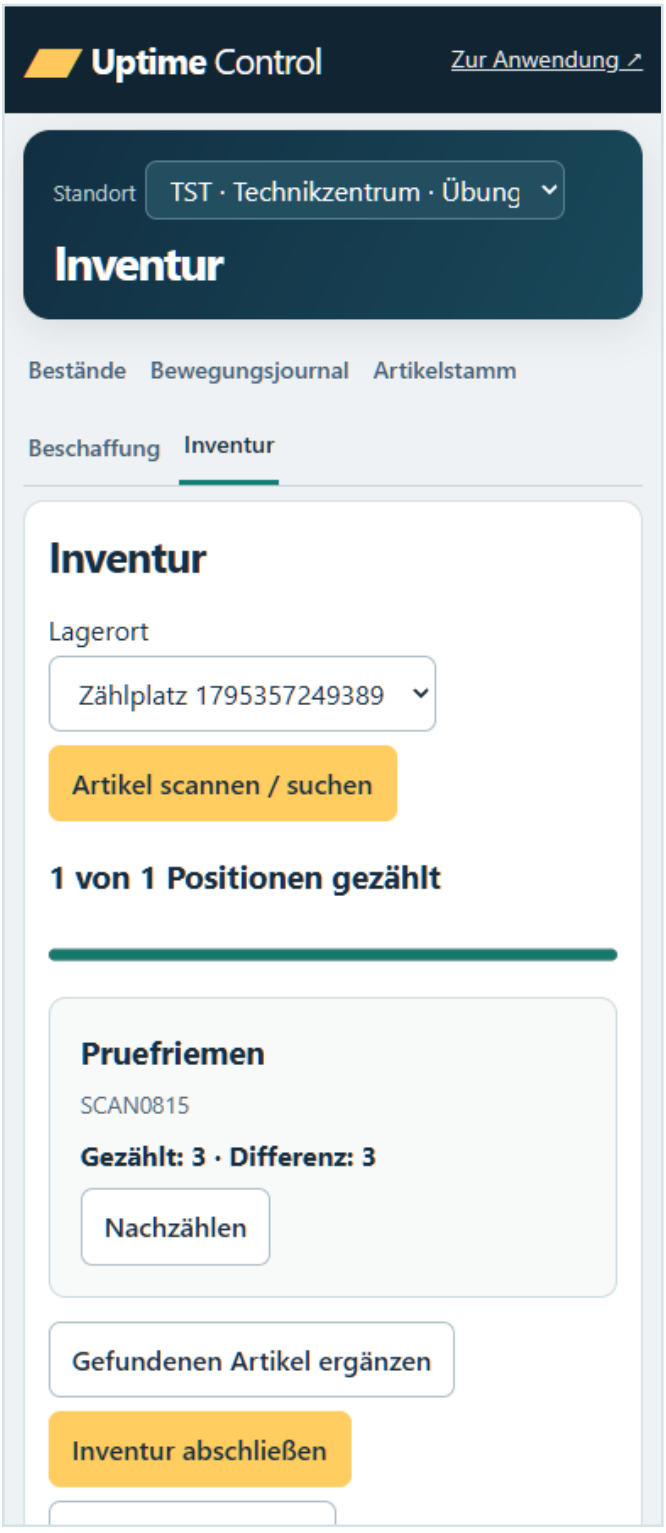
Open a previously counted article again. Check its loaded quantity, recount physically and save the corrected total, not merely the difference.

If an article is not recognised, check code, location and master data. An authorised user can create a genuinely discovered missing article at the location and then count it. Do not assign its quantity to a similarly named item.

## Verification boundary

The supplied illustrations and checks demonstrate software workflows with sample data. Physical camera scanning on the customer's actual phone and label printing still require verification during introduction.

## Figure 30 | Count, scan and recount




Synthetic training data. V2 captures: 21/22 November 2026; other images: previous-edition core workflows. Some V2 screens retain German labels; the chapter explains their English meaning.

# 46 Complete, cancel and export a stocktake

## Prepare completion

Ensure every line has a confirmed counted quantity. Completion is unavailable while lines remain uncounted. Recount unusual differences and investigate physical movements during counting.

## Commit completion

1. Open the completion function and verify location and stocktake.
2. Read the displayed number of discrepancies and assess plausibility.
3. Confirm once. Accepted differences are posted as traceable stock changes.
4. Check completed status, released location, new balances and movement journal.
5. Open stocktake history and export the count protocol as CSV.

## Read the protocol

The protocol includes stocktake ID, location, status, article, expected quantity, counted quantity, difference, UTC timestamp and operator ID. UTC can differ from local display time. Preserve the original export and use a copy for analysis.

## Cancel instead of complete

Cancellation releases the location and retains entered counts but posts no stocktake adjustments. Record the reason and arrange a new stocktake if necessary.

## Concurrent editing

If another operator has changed the stocktake meanwhile, saving may be rejected because your version is outdated. Reload, inspect the latest saved values and only then decide whether to re-enter anything. Do not repeatedly confirm without checking.

## Example

Expected stock 5, counted 3: after verified completion the difference is −2 and stock is 3. Cancellation leaves the previous stock unchanged; counting alone does not post an adjustment.

# 47 End-to-end exercise and acceptance

Use an approved test site with synthetic data. Do not accidentally perform this exercise against production stock.

1. Administrator: verify site, machines, users and roles. A user without site permission must not edit the data.

2. Warehouse: create a test article, receive five items and print a label. Check stock and journal.

3. Technician: record a service event for an already stopped machine. Keep outage onset separate from your own working time.

4. Guided path: use a known fault code, answer the questions and assign a test part actually used.

5. Completion: document the functional test, record restoration time and save. Stock must match the physical issue.

6. Service lead: trace event, downtime, working time and any outstanding review. Separately test a follow-up case with a review deadline.

7. Warehouse: test a referenced return and partial delivery. Check stock and outstanding order quantity.

8. Stocktake: lock the location, count all articles, investigate a deliberately introduced difference, complete and export CSV.

9. Counter-check: cancel a second stocktake. It must not post a difference and the location must become available again.

10. Operations: check sign-out, sign-in, MFA and the agreed backup. Record date, role, expected and actual outcome.

## Acceptance boundary

This exercise is a template, not an already signed customer acceptance record. The actual installation, physical devices, printers, cameras, permission assignments and operational approvals must also be checked.