The technician web app — work orders on the phone, online or offline

Menu: CMMS ▸ Technician App and API… ▸ Open technician app

Part 1 — What the function does

What it does. The technician web app puts the work orders on the technician's phone. The technician scans the QR code on a machine, sees the machine and its open work orders, starts a job, books labour and parts, writes the findings, records the failure event and completes the job - all on the phone, written into the same CMMS database the office uses. When the phone loses its connection, every action is kept on the phone and sent when the connection returns.

What the technician does	What the app does
Scans a machine's QR code	Opens the machine: its place in the plant, its criticality, its latest meter reading and its open work orders
Starts a work order, books labour and parts	Moves the work order to In Progress and shows the cost so far
Records the failure event	Offers the failure codes class by class, and shows the operating time to failure before it is saved
Works with no connection	Keeps every action on the phone and says how many wait: You are offline; 4 change(s) queued and will sync when connected.
Reconnects after the office changed the same records	Sends the queued actions; where both sides changed a record, keeps the later change and lists each case in the Sync log

From which data. The CMMS database ReliaEn has open, served by the service started in CMMS ▸ Technician App and API… (chapter *The REST API*), and the technician's own user account.

When an engineer uses it. Whenever the people who do the work should record it where they do it: at the machine, during the job, with the machine's code read from its label rather than typed.

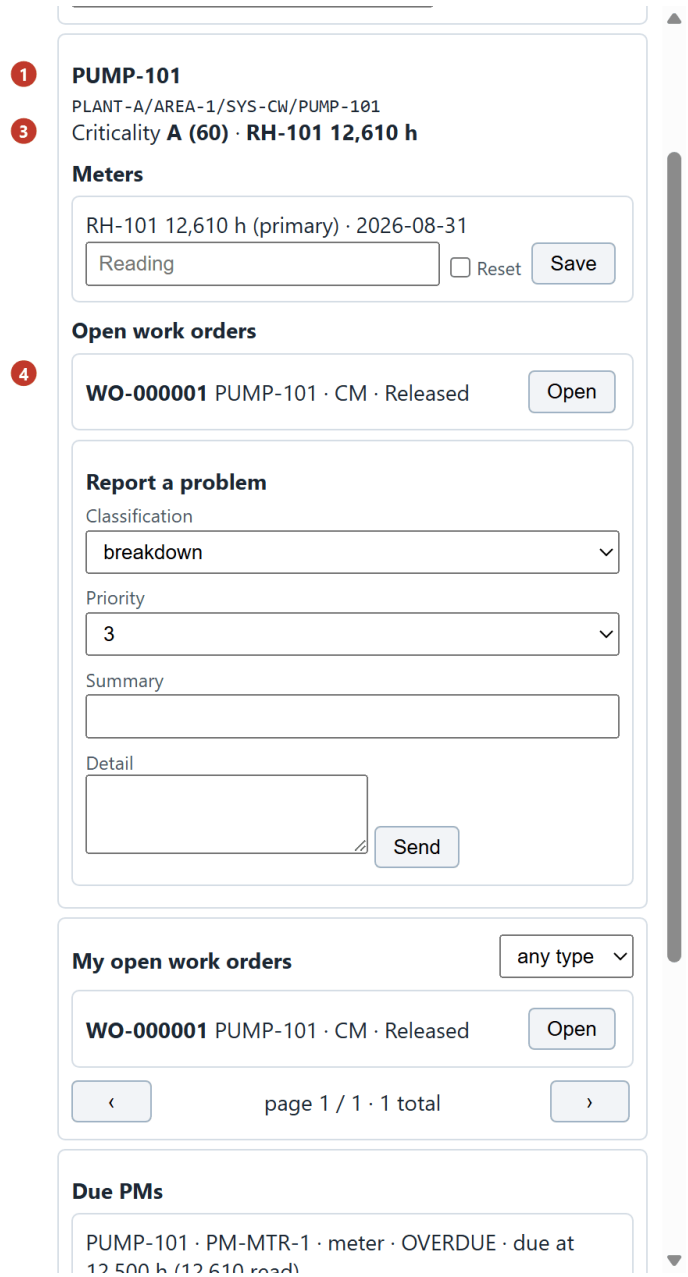
When not to use it.

Situation	Use instead
A planner releases, assigns or closes work orders	CMMS ▸ Work Orders… on the desktop - the technician app works the jobs it is given
Another program must read or write the records	The REST API - see the chapter *The REST API*
Phones reach the service over the plant network	The service accepts connections from the computer that runs ReliaEn only; place it behind a reverse proxy with TLS, as DEPLOYMENT.md describes

Part 2 — The example's input data

Setting. The cooling-water pump PUMP-101 leaks at its seal. The planner has released the corrective work order WO-000001 to the technician. The technician goes to the pump with a phone, replaces the seal and records the failure; later, in the pump room with no signal, the technician works a second job; back in coverage, the phone sends what it kept.

Input	Value
CMMS database	A CMMS file with the pump PUMP-101 (plant path PLANT-A/AREA-1/SYS-CW/PUMP-101, criticality A, meter 12,610) and the work order WO-000001 at Released, assigned to the technician
Technician	User u-tech
The job	Labour 2.5 h; parts used 2 × P-SEAL-25; findings seal worn
The failure event	Failure date 2026-08-31; meter at failure 12,610; the pump's last renewal at 11,200

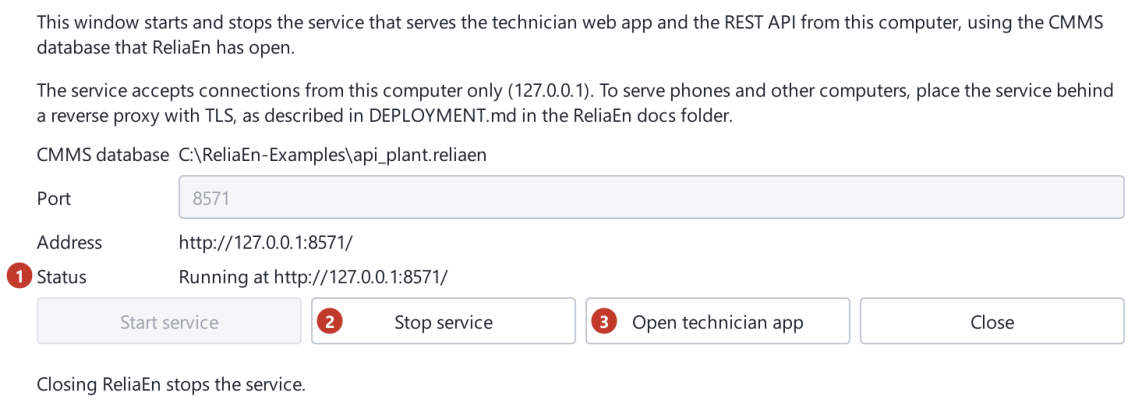


The example's pump and its work order, as the phone shows them

- ① PUMP-101, at PLANT-A/AREA-1/SYS-CW/PUMP-101.
- ② Criticality A.
- ③ The meter, 12,610 h.
- ④ WO-000001, a corrective work order (CM) at Released.

Part 3 — How to use it, step by step

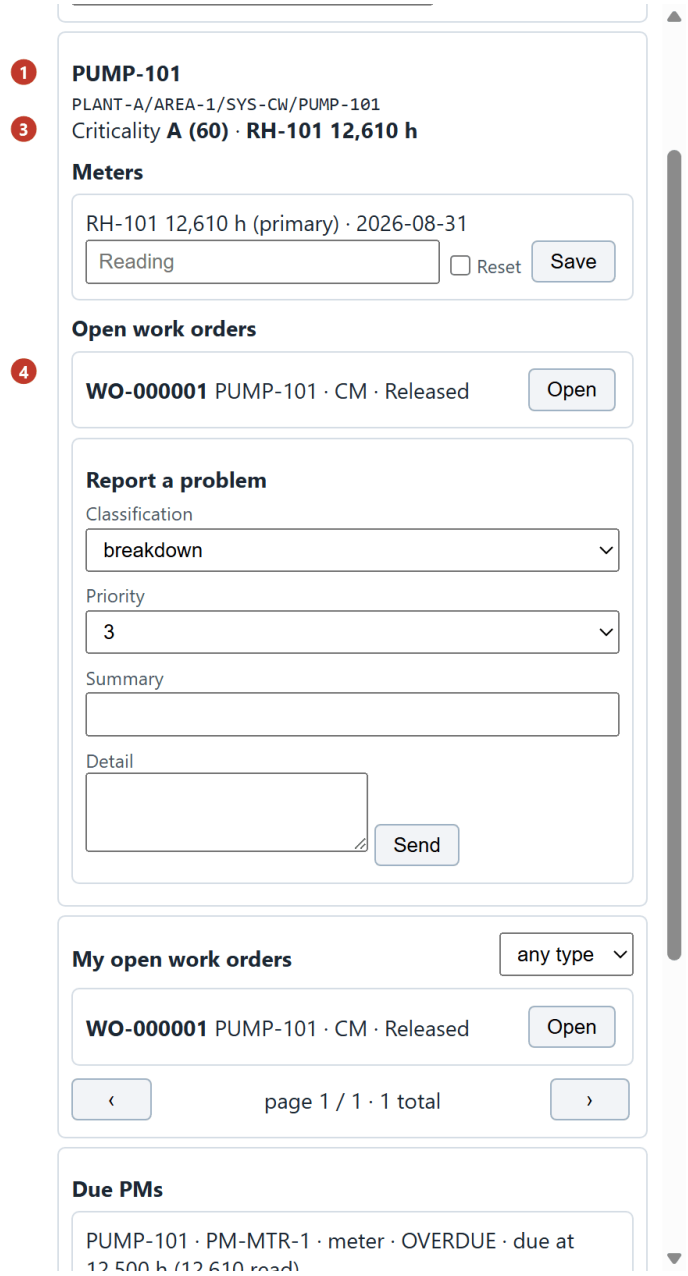
1. **On the desktop, start the service** in CMMS ▸ Technician App and API… (chapter *The REST API*, steps 1 to 3), then click Open technician app (③ below). On a phone, open the same address through your plant's reverse proxy.



Step 1 — the service running, on the desktop

- ① Status: Running at http://127.0.0.1:8571/.
- ② Stop service.
- ③ Open technician app: opens the app in your browser.

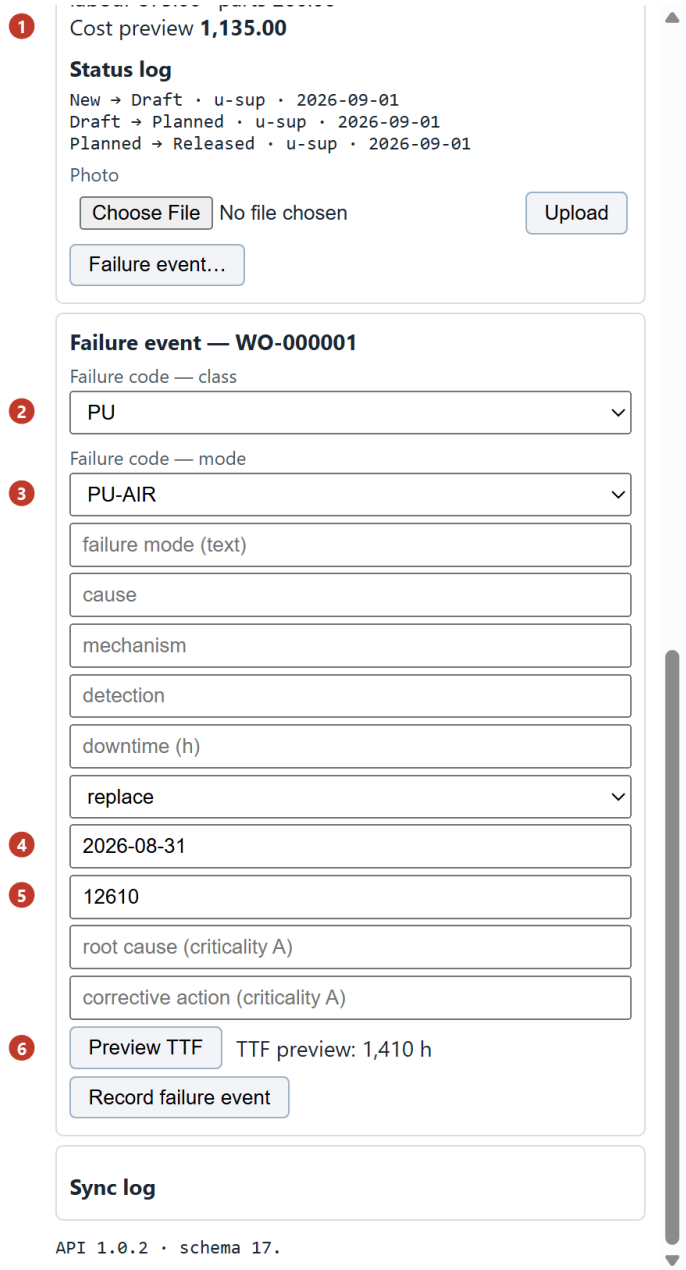
2. **Sign in** with the technician's user name and password, then **scan the QR code on the pump**, or type its asset id in scan QR (asset id) and click Scan. The pump's page opens.



Step 2 — the pump after the scan

- ① PUMP-101 and its place in the plant, PLANT-A/AREA-1/SYS-CW/PUMP-101.
- ② Criticality: A (60).
- ③ The pump's running-hours meter, RH-101 12,610 h, its latest reading. The section Meters below takes a new reading.
- ④ Open work orders: the jobs open on this pump; Open opens one. Further down, Report a problem raises a service request and Due PMs lists the preventive jobs that are due.

3. ① **Open WO-000001, click Start, and book the job.** The status moves to In Progress. Type 2.5 in Labour (h) and click Add labour; choose P-SEAL-25, type 2 in qty and click Add part; type seal worn in Findings and click Save. The Cost preview (①) adds up what is booked.

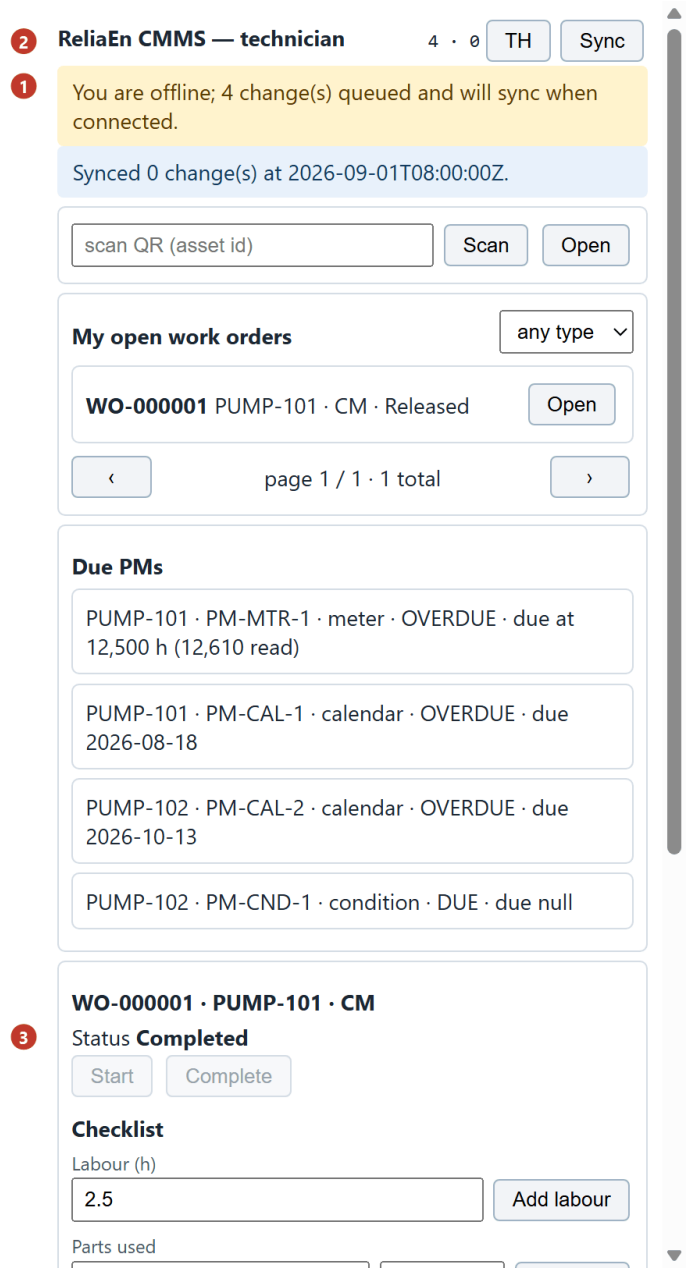


Steps 3 and 4 — the job booked and the failure form

- ① Cost preview: 1,135.00 - labour 875.00 and parts 260.00, the line above it.
- ② Failure code — class: PU, the class of pumps.
- ③ Failure code — mode: the list holds only the modes of the class chosen, PU-AIR to PU-VIB.
- ④ The failure date, 2026-08-31.
- ⑤ The meter at failure, 12610.
- ⑥ TTF preview: 1,410 h - the operating time to failure the event will carry.

4. ② ③ ④ ⑤ ⑥ **Click Failure event…**, choose the failure code's class (②) and then its mode (③), type the failure date 2026-08-31 (④) and the meter at failure 12,610 (⑤), and click Preview TTF (⑥). Then click Record failure event, and Complete on the work order.

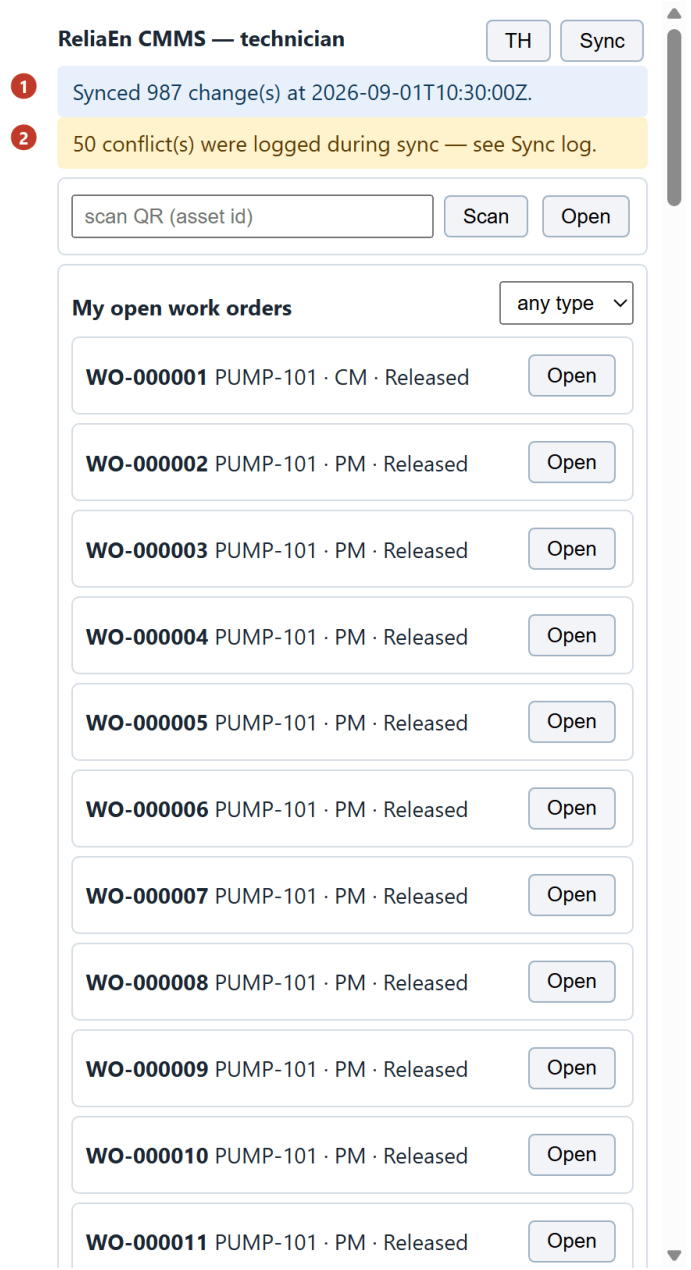
5. **Without a connection,** work the same way: every action is kept on the phone, and a banner says how many wait.



Step 5 — working with no connection

- ① You are offline; 4 change(s) queued and will sync when connected.
- ② The queue count beside the buttons: 4 · 0 - four changes and no photo waiting.
- ③ Status: Completed - the work order as the phone shows it, with your actions applied on the phone. While offline the phone shows its own Cost preview only; the office's cost lines return with the connection.

6. **When the connection returns, click Sync** (or wait: the app sends the queue on its own when it sees the connection). The pictures of the sync come from a larger day than the example's: the phone kept 1,000 changes to the task lines of 200 work orders, made between 16:00 and 16:29, while the office changed 50 of the same task lines - 37 at 15:30, before the phone, and 13 at 17:00, after it.



Step 6 — the sync's two banners

- ① Synced 987 change(s) at 2026-09-01T10:30:00Z. - the phone's changes the database took: 1,000 less the 13 the office made later.
- ② 50 conflict(s) were logged during sync — see Sync log. - every task line both sides changed.

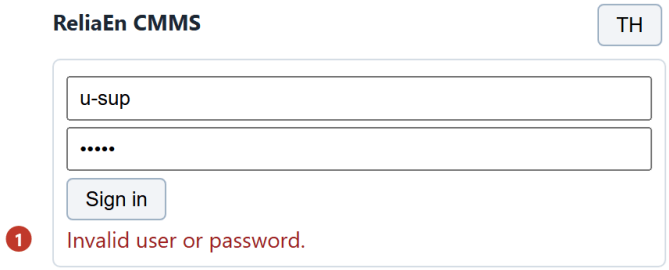
Part 4 — The result, picture by picture

Sync log

WO	row	client	server	winner
WO-000002	wo_task	2026-09-01 16:00	2026-09-01 15:30	client
WO-000002	wo_task	2026-09-01 16:01	2026-09-01 15:30	client
WO-000002	wo_task	2026-09-01 16:02	2026-09-01 15:30	client
WO-000002	wo_task	2026-09-01 16:03	2026-09-01 15:30	client
WO-000002	wo_task	2026-09-01 16:04	2026-09-01 15:30	client
WO-000003	wo_task	2026-09-01 16:05	2026-09-01 15:30	client
WO-000003	wo_task	2026-09-01 16:06	2026-09-01 15:30	client
WO-000003	wo_task	2026-09-01 16:07	2026-09-01 15:30	client
WO-000003	wo_task	2026-09-01 16:08	2026-09-01 15:30	client
WO-000003	wo_task	2026-09-01 16:09	2026-09-01 15:30	client
WO-000004	wo_task	2026-09-01 16:10	2026-09-01 15:30	client
WO-000004	wo_task	2026-09-01 16:11	2026-09-01 15:30	client
WO-000004	wo_task	2026-09-01 16:12	2026-09-01 15:30	client
WO-000004	wo_task	2026-09-01 16:13	2026-09-01 15:30	client
WO-000004	wo_task	2026-09-01 16:14	2026-09-01 15:30	client
WO-000005	wo_task	2026-09-01 16:15	2026-09-01 15:30	client
WO-000005	wo_task	2026-09-01 16:16	2026-09-01 15:30	client
WO-	wo_task	2026-09-01	2026-09-01	client

The Sync log

- ① The columns: `WO`, `row` (the table of the record), `client` (the phone's time), `server` (the office's time) and `winner` (the change kept).
- ② The first conflict: a task line of WO-000002, changed on the phone at 16:00 and in the office at 15:30; the phone's change is the later, so `winner` reads `client`. The 37 such rows come first; the 13 rows further down read `server` - the office's change was the later one there.



A refused sign-in

- ① Invalid user or password. - the one answer for a wrong password and for a user that does not exist.

Part 5 — How to interpret the results

The cost preview is what the job has cost so far - labour at the technician's rate plus the parts issued. The office sees the same lines in CMMS ▸ Work Orders…; the cost is frozen when the planner closes the work order.

The time to failure is the pump's operating time from its last renewal to this failure, read from the meter: 12,610 − 11,200 = 1,410 h. It is what the reliability analyses read from this event; a wrong meter reading here gives a wrong life to every analysis that uses it, so the app shows it before the event is saved.

The offline banner counts the actions kept on the phone. Nothing of them is in the database yet; the office sees them only after the next sync. Do not reinstall the app or clear the browser while changes wait.

A conflict in the Sync log means the office changed the same record while the phone was offline. The later change is kept; the other is not lost - it stays in the log with its time. A work order the office has cancelled or moved past your step is never moved back by the phone: your change is refused, and the log says which status was kept.

A refused sign-in gives no hint of what was wrong. Check the user name and the password; if both are right, ask the CMMS administrator whether the account exists and has a role.