

The digital shift diary — feature by feature

A detailed guide to the OPEREX shift diary: why it is needed, what it is, and how it works — feature by feature, through a Lean lens, at a continuous-process, regulated industrial site.

CONTENTS

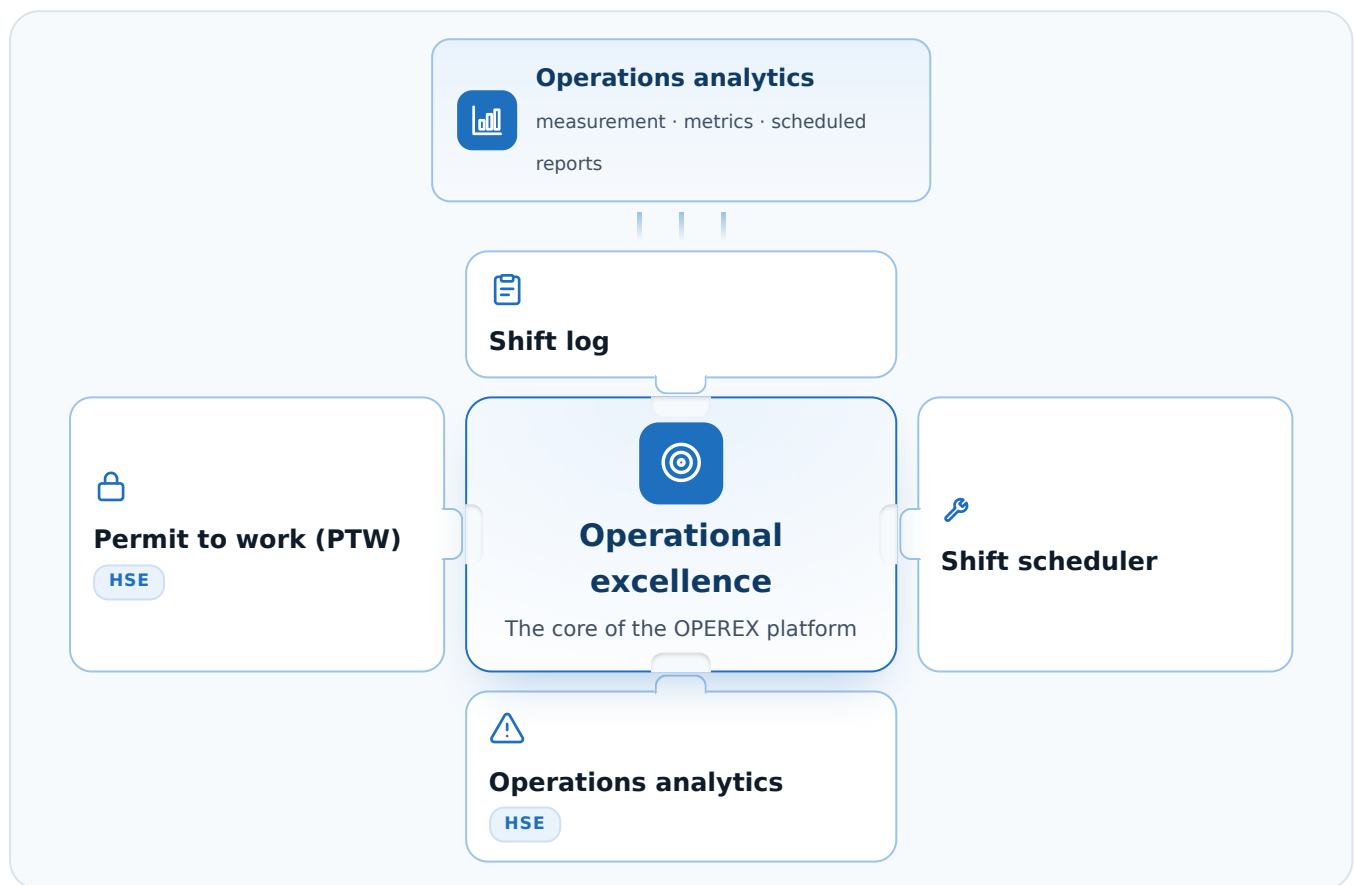
1. The system: one core, growing modules
2. Why — the need and the Lean frame
3. The diary features — in three categories
4. Security and compliance
5. Adoption and next step
6. Sources



THE PLATFORM

One core, growing modules

Operational excellence is not a one-off project but a durable operating capability: the standard, the measurement and the improvement repeat on every shift. OPEREX turns that into daily, auditable data — module by module.



OPEREX is a modular platform: it turns daily operations into auditable, measurable excellence — adopted at your organisation's own maturity. Live today: the shift diary, analytics, permit to work and the shift-scheduling API; the rest (incident investigation, maintenance) go live step by step, on a shared data model and an end-to-end audit trail.

Grows module by module

No required order — start where the gap is biggest.

Auditable throughout

Every module builds on the same append-only audit trail.

EU data residency

Self-hosted, even air-gapped for regulated sites.

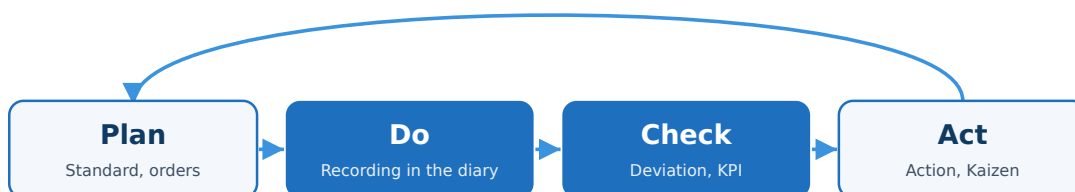
Why — the need and the Lean meaning of the diary

A continuous-process, regulated industrial plant needs a searchable, auditable framework that standardises daily operation — and that makes regulatory compliance provable. A shared spreadsheet or paper cannot provide this. The shift diary answers that need: not digitised paper, but the daily execution layer of operational excellence, where the standard, the measurement and the improvement become auditable data.

Operational excellence is the umbrella that unites process safety, production, technology and maintenance into one coordinated system. The lowest, daily/shift-level execution layer of that system is the shift diary: here the KPI fact, the gap against target and the action taken become auditable data, recorded shift by shift.

The foundation of the House of Lean is stable, standardized work and visual management. One classic element of standardized work is the unified handover of information at shift change — exactly the structured, unmissable handover that OPEREX supports digitally. Visual management makes the deviation instantly visible; the diary gives it a durable, auditable trace, with an owner and a timestamp.

The engine of improvement is the PDCA cycle and Kaizen. The diary is the natural trace of the PDCA Do and Check phases: the recorded deviations, actions and their closure document that the planned improvement happened and was verified. The daily engine of Kaizen is precisely shift-level deviation handling and action tracking — which the diary serves from the deviation log, the action list and the KPIs.



The daily PDCA loop: the diary is the auditable trace of the Do and Check phases — so information flows continuously from shift to shift and up to management.



The continuous flow of information

The diary is not an archive but a live handover surface: knowledge is shared at once, and the task and its status stay visible.

Immediate knowledge sharing

The shift's events, readings and notes are available to the next shift and to management the moment they are recorded.

Task tracking

The status of assigned tasks stays visible throughout — who has it, where it stands, whether it is closed.

Instant status

The current state of the shift is legible at a glance; no need to reconstruct afterwards what happened.

Closing out orders

A standing order stays visible until someone does it and closes it — it does not quietly disappear at the shift boundary.

Standing orders and carried-over tasks

Standing and recurring orders carry over to the next shift until they are done and closed. Unfinished work does not vanish at the shift boundary: it stays visible, with an owner and a deadline, and its closure leaves an auditable trace. This is the backbone of continuous information flow — and the daily engine of the PDCA Do-Check phase.

WHICH OF THE 8 WASTES (MUDA) THE DIARY ATTACKS

- 8TH — KNOWLEDGE WASTE** The knowledge lost at shift handover, kept only in people's heads (the 8th waste, unused knowledge) — the diary turns it into structured, retained, searchable data.
- WAITING** Information delay between shifts and management — the automatic PDF and delivery remove the forwarding wait.
- DEFECTS** A missed or incomplete handover can lead to an incident — a structured, enforced handover prevents it.
- MOTION** Searching through paper/Excel — the filterable archive cuts the search to seconds.
- OVERPROCESSING** Manual report writing is a wasted step — the automatic, canonical PDF replaces it.

“You can't improve what you don't measure.” The shift diary turns shift knowledge that would stay in people's heads into standardized, visual, auditable data — the precondition for Kaizen and continuous improvement.

The diary features — what they do, why they matter, how they look

In three categories, and for each feature three things: exactly what it does, what it means through a Lean lens, and a concrete plant example.

The log's core

1 Standing orders and carried-over tasks

WHAT IT DOES Standing and recurring orders that carry over to the next shift until they are done and closed.

LEAN BENEFIT **PDCA · VISUAL MANAGEMENT** Unfinished work does not vanish at the shift boundary: it stays visible and trackable — the natural trace of the PDCA Do-Check phase.

EXAMPLE *"Check the seal on pump P-102" reappears every shift until someone does it and reports it — no handover ever slips through.*

2 Event and incident log (HSE)

WHAT IT DOES Plant events and incidents captured with HSE severity, in the same diary flow — the deviation is recorded where and when it happens.

LEAN BENEFIT **JIDOKA — DEVIATION IS VISIBLE** The deviation surfaces where it occurs (jidoka, built-in quality); the recorded event is the starting point for root-cause analysis and Kaizen.

EXAMPLE *A leak is logged with severity and a timestamp on the shift — a durable basis for later investigation and trend analysis.*

3 Shift attendance from a roster

WHAT IT DOES Shift attendance drawn from a managed worker roster — who was on shift, saved as a snapshot in the closed diary.

LEAN BENEFIT **STANDARDIZED WORK** The human resource on each shift is recorded and auditable; it stays clear afterwards who was on duty.

EXAMPLE *For a night-time event the closed diary shows exactly who was on shift — no after-the-fact reconstruction.*

4 Out-of-range value flagging (min/max)

WHAT IT DOES Data points can carry min/max limits; when a recorded value falls outside the range, the diary flags it immediately — the operator sees the deviation on the shift.

LEAN BENEFIT **JIDOKA — BUILT-IN QUALITY** The deviation becomes visible the moment it is recorded: the operator catches it on the spot, not a later review — while something can still be done.

EXAMPLE *A heat exchanger's outlet temperature creeps above the allowed limit — the diary flags it as it is entered, and the supervisor acts at once.*



Automation and customisation

5 Automatic log lifecycle

WHAT IT DOES The diary opens and closes on schedule from the shift rota — no manual open/close, a constant and predictable cadence.

LEAN BENEFIT **MUDA ↓ — WAITING, MOTION** The waiting of manual admin and the “which diary do I write in?” hunt disappear; the rhythm evens out (less mura, i.e. unevenness).

EXAMPLE *The 06:00–14:00 shift diary is created automatically at 06:00 and ready to close at 14:00 — the supervisor has nothing to open.*

6 Customisable diary

WHAT IT DOES A drag-and-drop diary editor and templates: the diary structure fits the process down to the data-point level.

LEAN BENEFIT **THE TEAM OWNS THE STANDARD** Standardized work only lives if it fits the process — the team shapes its own diary rather than filling in a generic form.

EXAMPLE *A reactor unit adds temperature and pressure data points, a tank farm adds level readings — both in one system, each tailored.*

7 Custom PDF report template

WHAT IT DOES The shift PDF’s header, blocks and appearance are configurable per organisation — the report carries your own branding and the mandatory content, from a template.

LEAN BENEFIT **STANDARDIZED OUTPUT** The report’s form is standard too: every shift produces the same readable PDF structure — the recipient (management, a regulator) always finds what they need in the same place.

EXAMPLE *The organisation puts its logo, the mandatory HSE block and the KPI summary into the template — every site produces the same report structure, with no manual formatting.*

8 Automatic email delivery

WHAT IT DOES The shift PDF goes automatically to the listed recipients on close — no manual forwarding.

LEAN BENEFIT **MUDA ↓ — WAITING, INFO DELAY** Information is where it’s needed, when it’s needed; the handover and forwarding delay between shift and management is gone.

EXAMPLE *When the morning shift closes, the plant manager and HSE lead already find the report in their inbox — read by the time they arrive.*



Platform and data

9 Role-based access

WHAT IT DOES Operator, supervisor, plant manager, data steward and any custom role — a permission matrix governs who sees, records, closes and exports what.

LEAN BENEFIT **STANDARDIZED WORK** Who-does-what is recorded and accountable; the standard depends on the role, not on who happens to be on shift.

EXAMPLE *An operator records and closes their own plant; the plant manager sees every site, but only the authorized role edits the report template.*

10 Multiple plants and sites

WHAT IT DOES Multiple plants and sites under one organisation, with a site-level access list and data isolation.

LEAN BENEFIT **VISUAL MANAGEMENT AT SCALE** The same standard across several Gembas: sites work in one shared structure yet see data isolated from one another.

EXAMPLE *At a three-site company every plant has its own diary on a shared template — headquarters sees them all from one place.*

11 Filterable, searchable archive

WHAT IT DOES Every closed shift is searchable and filterable — by site, plant, date and content.

LEAN BENEFIT **MUDA ↓ — MOTION, WAITING** It turns minutes of searching into seconds; the recorded knowledge is not lost in a drawer or an orphaned spreadsheet.

EXAMPLE *“When did we last replace heat exchanger C-201?” — the answer is in the archive in seconds, not after half a day of searching.*

12 Data export (CSV/Excel)

WHAT IT DOES The diary’s structured data exports to CSV/Excel — with a data-point-level report pivot.

LEAN BENEFIT **DATA-DRIVEN KAIZEN** Recorded data is ready for analysis: performance management and Kaizen rest on facts, not impressions.

EXAMPLE *For the monthly maintenance meeting, last month’s events sit in a single Excel pivot, broken down by plant — the dialogue starts from data.*



Platform and data (continued)

13 Tamper-evident audit trail (§7.5)

WHAT IT DOES Every entry is recorded with a timestamp, an author, immutably — append-only, not rewritable after the fact (in the spirit of ISO 45001 §7.5).

LEAN BENEFIT **JIDOKA · BUILT-IN QUALITY** Traceability is built in, not bolted on afterwards; data integrity is a property of the system itself.

EXAMPLE *In a regulatory audit the entry history proves who recorded what and when — no “corrected” version to explain away.*

14 Tamper-proof PDF report

WHAT IT DOES A canonical, versioned PDF report is produced for every closed shift — automatically, with no manual editing.

LEAN BENEFIT **MUDA ↓ — OVERPROCESSING** Manual report writing disappears; the traceable artifact is uniform and cannot be rewritten after the fact.

EXAMPLE *The PDF is ready the moment the shift closes — no more “I’ll put the report together at the end” half-hour at shift change.*

15 EU data residency, on your own infrastructure

WHAT IT DOES EU data residency; self-hosted, even air-gapped (network-isolated) or on-premise deployment for regulated sites.

LEAN BENEFIT **A REGULATED-INDUSTRY PREREQUISITE** Data sovereignty and IT audit are achievable on your own infrastructure — compliance risk drops, the prerequisite is met.

EXAMPLE *A Seveso-class refinery runs OPEREX on its own network-isolated server — the data never leaves the site.*

16 Multilingual interface

WHAT IT DOES The interface is Hungarian and English today, extendable; the language is set per organisation.

LEAN BENEFIT **ONE STANDARD ACROSS LANGUAGES** Multiple sites and languages use the same standard — the language difference does not break the unified process.

EXAMPLE *A Hungarian plant of an international group works in Hungarian, while the report reads in English too — the same data, two languages.*



Security and compliance

OPEREX is built for continuous-process, hazardous and Seveso-classified sites — where traceability and data sovereignty are not an option but a requirement. What a shared spreadsheet cannot do, the diary brings built in.

Auditable trail (§7.5)

- An append-only, tamper-evident entry history with a timestamp and an author — in the spirit of ISO 45001 §7.5.
- A canonical, versioned PDF for every closed shift — not rewritable after the fact.
- In a regulatory audit the entry history proves who recorded what and when.

Data sovereignty and deployment

- EU data residency; self-hosted, even air-gapped (network-isolated) or on-premise.
- Data can stay within the boundaries of the regulated site.
- IT-audit and data-protection requirements are achievable in your own environment.

Continuous and hazardous operation

- Multiple shifts, 24/7 operation, parallel sites — the diary's rhythm follows the shift rota.
- At hazardous and Seveso-classified plants, structured, enforced recording reduces the risk from a missed handover.
- The deviation is recorded where and when it happens — the basis of process safety.

Access and isolation

- Role-based access with site-level data isolation — each organisation and site sees only its own.
- Row-level security (RLS) enforced in the database, not only in the application.
- Privileged and everyday access are kept separate.

Every claim is verifiable; OPEREX runs in production at real industrial organisations. An external penetration test is planned before the first enterprise rollout.



Starting from the diary — module by module, no required order

OPEREX grows module by module. The digital shift diary is the core module, live today; from there the organisation moves on where the gap is biggest — there is no mandatory path.

1 Shift diary

The daily handover, events and management reporting in one auditable flow — the core that is live TODAY, and complete in its own right.

2 Operations analytics (add-on)

Metrics, trends and scheduled reports from data the diary already collects — no migration, computed retroactively from the day you switch it on.

3 Further modules

Incident investigation, permit to work (PTW), maintenance (CMMS) — on a shared data model, on an end-to-end \$7.5 audit trail, going live step by step.

We'll show you OPEREX on your own operational processes, no strings attached. Pricing is being finalised — request a tailored quote.



Sources

The Lean frame rests on published, citable articles in the OPEREX Knowledge Base (operex.eu/knowledge). The following articles and conceptual references ground the claims in this guide.

OPEREX KNOWLEDGE BASE — LEAN AND OPERATIONAL EXCELLENCE ([OPEREX.EU/KNOWLEDGE](https://operex.eu/knowledge))

- Operational Excellence (OE)
- The House of Lean (TPS House)
- Standardized work (Standard Work)
- The PDCA cycle (Plan-Do-Check-Act)
- Jidoka — built-in quality and autonomation (Andon)
- The OPEREX house — what OE covers
- Muda — the 8 wastes (TIMWOODI)
- Visual management
- Kaizen (continuous improvement)
- Performance Management

CONCEPTUAL AND STANDARD REFERENCES

- ISO 45001:2018 §7.5 — documented information (the conceptual frame for the audit trail); §10.2 — incident, nonconformity and corrective action (for incident investigation).
- The 7+1 muda (TIMWOODI) — Taiichi Ohno, Toyota Production System.
- Standardized work and visual management — the foundation of the House of Lean.
- The PDCA cycle (Plan-Do-Check-Act) — the engine of continuous improvement.
- Jidoka — built-in quality; Kaizen — continuous improvement.