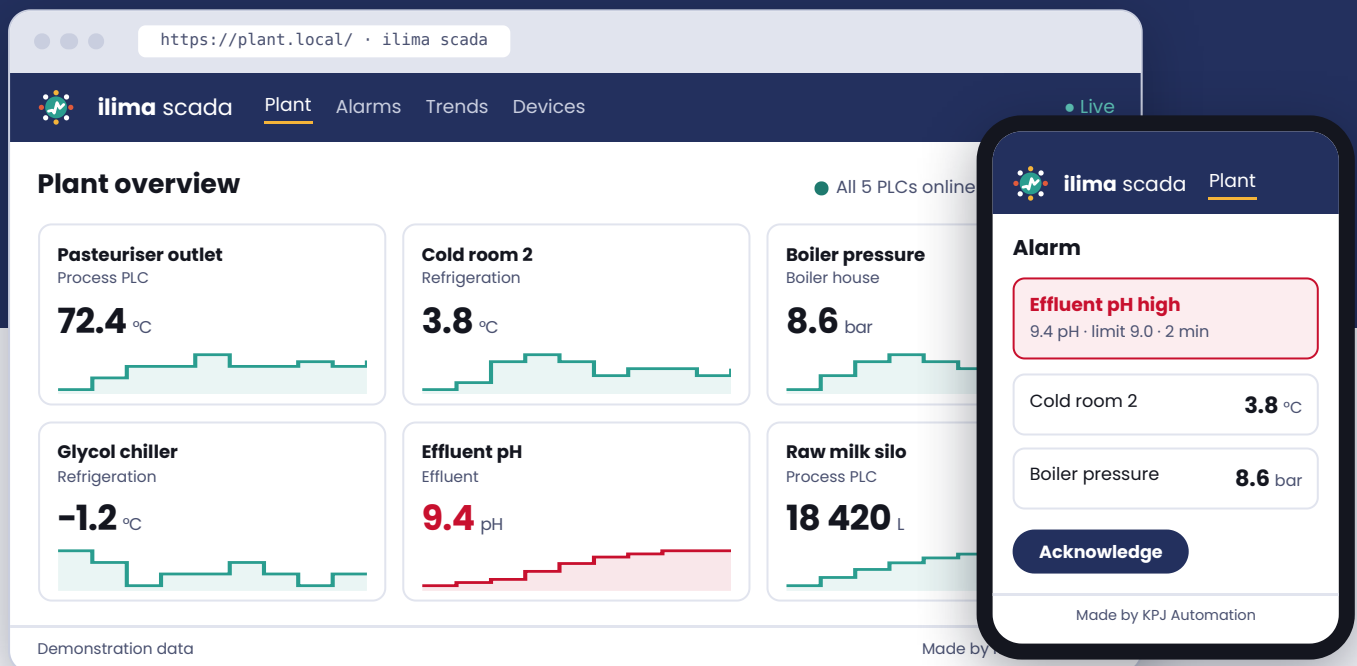


SCADA & REMOTE MONITORING · PRODUCT INFORMATION

ilima scada

Your whole plant on one page, live. It reads the PLCs you already have, keeps the history, raises the alarms that matter and puts it all on the phone in your pocket.

**648**

tags live on the first
installation, across 5 PLCs

2 s

typical poll, each device on its
own loop

0

cloud services, per-tag fees or
vendor lock-in

WHAT IT IS

A supervisory layer on top of the PLCs you already own

ilima scada runs on one PC at your plant. It polls every controller over Modbus TCP, shows the values you care about on a single live dashboard, keeps a history you can trend and export, and sends alarms to the right person's phone.

It is not a rip-and-replace. Interlocks, safety and sequence logic stay in the PLC where they belong. ilima scada watches, records and alerts, with confirmed and logged write-back only where you switch it on. There is no per-tag licence and no vendor cloud in the path: the database is a file on your own disk.

Who it is for

Plants that run well on PLCs but where nobody can see what those PLCs are doing without walking the floor. Typically two to twenty controllers spread across pump stations, boiler houses, cold rooms and process lines, where a pressure drift or a freezer creeping up is only noticed once something has already gone wrong.

BENEFITS

Why plants put it in

◆ See the whole plant on one page

Every value live, grouped the way your plant is laid out, with a sparkline showing where it has been.

◆ Hear when a PLC drops off

Offline alerts after a delay you set, an outage log per device, and a heartbeat so you also hear if the SCADA PC itself dies.

◆ Prove what happened

Every sign-in, setpoint change and configuration edit is logged: who, what, from what value to what value, and when.

◆ Know before the operator phones you

Alarms with a real deadband and on-delay go to the people you choose, by push, email, Telegram or webhook.

◆ A morning report without asking

A daily or weekly plant summary and scheduled trend reports with charts arrive by email.

◆ Use the hardware you already own

Anything on Modbus TCP is a candidate, and the ilima gateway brings serial PLCs and drives in too.

HOW IT WORKS

One machine does all the talking

The ilima scada host is the only thing on the PLC network. It polls each device on its own loop, stores what you asked it to store, and serves the dashboard to whoever is allowed to see it. No phone, laptop or camera ever needs a route to a controller.

Built to keep running

- ◆ Each device polls on its own loop with its own reconnect; a controller that drops off is marked offline after three missed polls and the others carry on
- ◆ Tags at neighbouring addresses are combined into block reads, so a 400-tag PLC costs a few Modbus requests per cycle
- ◆ Devices are set up from the PLC's own exported tag list; a re-import never touches your scaling, logging, alarms or layout
- ◆ Values are stored raw and scaled on read, so correcting a calibration fixes the whole history

What it deliberately does not do

- ◆ It does not run your process. Control logic stays in the PLC
- ◆ It does not record video. Camera frames are fetched while someone is looking, then discarded
- ◆ It does not phone home. There is no vendor cloud, and you can take the database with you
- ◆ A restore never overwrites a live database: it is staged and swapped at the next start

CAPABILITIES

Everything here is built and running on a live plant

Live dashboard

- ◆ Every tag pushed to the browser live, no refresh
- ◆ Groups laid out by plant area, in your order
- ◆ Sparkline on every tile; tap it for the trend
- ◆ Digital tags as words: Running, not 1
- ◆ Light and dark mode; installs as an app on any phone
- ◆ Wall-screen view for a TV, rotating every 20 s
- ◆ Camera tiles with live values overlaid

History & reports

- ◆ Logging switched on per tag, stored on change
- ◆ Multi-tag trends over any period; CSV and PDF
- ◆ Retention period you set, with automatic purge
- ◆ Scheduled trend reports: charts plus a CSV, daily or weekly
- ◆ Daily or weekly plant summary by email and push
- ◆ Outage log per device: count, total, longest

Alarms & notifications

- ◆ High, low or state change, per tag
- ◆ Deadband and on-delay stop nuisance alarms
- ◆ Per-rule recipients: choose people, not channels
- ◆ Web push, email, Telegram and webhook
- ◆ Email via Microsoft 365, any SMTP or an in-house relay
- ◆ Offline alerts after 1 to 30 minutes, plus heartbeat
- ◆ Acknowledge one or all; who and when is recorded

SECURITY, CONTROL AND UPKEEP

Built to be left running, and to be trusted

Users & security

- ◆ Three roles: viewer, operator, admin
- ◆ Staff sign in over HTTPS only
- ◆ Optional two-step sign-in
- ◆ Sessions can be revoked at once
- ◆ Stored passwords and keys encrypted (AES-256-GCM)
- ◆ Audit of sign-ins, writes and edits, with CSV export

Control & write-back

- ◆ Nothing is writable until you make a tag writable
- ◆ Two-step confirm before a value reaches a PLC
- ◆ Operators can write; viewers cannot
- ◆ One master switch turns all control off
- ◆ Every write logged with its previous value

Deployment & upkeep

- ◆ One installer for Windows, runtime included
- ◆ Runs as a service from boot, with nobody signed in
- ◆ Nightly automatic backups, 7 kept, plus an off-machine copy
- ◆ One-click full backup and a staged, safe restore
- ◆ Your logo and site name on sign-in and dashboard

IN DETAIL

Supported devices

DEVICE	STATUS	NOTES
Haiwell PLC (Modbus TCP)	In service	Full native address mapping from the HPMaster tag export. Running on a live plant today.
ilima gateway	Supported	Brings RS-485 PLCs and drives in (Haiwell, Delta, VSDs and more). Tags fetched straight from the gateway.
ilima count	Supported	28 values per unit: count, rate, batch, reject, I/O and signal. Read-only by design.
Other Modbus TCP PLCs	Roadmap	Native address maps for Delta, Siemens and WECON are planned. On RS-485 they can come in through the gateway today.
IP cameras	In service	Hikvision, Dahua, Axis, VIVOTEK, Uniview and generic ONVIF snapshots.

Gateway and counter support is built and tested against the units' own protocol; first runs with physical units on a customer site are being scheduled. KPJ confirms each device at survey stage.

SPECIFICATION

Technical specification

ITEM	DETAIL
Protocol	Modbus TCP: read function codes 1–4; coil and register write for opt-in control tags. ilima count units over HTTP.
Devices per system	No fixed limit. 5 PLCs, 648 tags, 12 cameras and about 3.4 million stored readings on the first installation.
Polling	Independent loop per device with reconnect and backoff, typically 2 s. Offline after 3 missed polls.
Live update	Server push over WebSocket: values appear as they are read.
Scaling	None, linear or two-point. Applied on read, reversed on write.
History	Opt-in per tag, on change or on interval. CSV export, print and PDF. Retention set by the site.
Alarms	High, low or state change per tag, with deadband, on-delay, severity and per-rule recipients.

Notifications	Web push, email (Microsoft 365, SMTP or relay), Telegram and webhook. Offline alerts, summaries, trend reports, heartbeat.
Host	Windows PC or industrial mini-PC, installed as a boot-time service. No internet needed to run.
Clients	Any modern browser. Installable as an app on Android, iOS, Windows and macOS. Wall-screen mode.
Licensing	Once-off site licence. No per-tag charge and no monthly cloud fee.

Growing beyond tiles and trends? A full SCADA with mimic diagrams for larger plants is on the roadmap, and ilima scada sites will be able to step up to it without starting again.

THE ILIMA RANGE

Start with one unit. Grow the whole plant.

ilima count Counts, rates, batches and lots on one machine	ilima gateway Puts RS-485 PLCs and drives on the network	ilima pump Pressure and supply control for one pump	ilima irrigate Four zones, schedules and rain inhibit
ilima scada The whole plant on one screen, with alarms	ilima master count Orders, stock, recipes and lot traceability	ilima maint Job cards, machine files, spares and shifts	by KPJ Designed, built and supported in La Mercy, KwaZulu-Natal

WHERE IT FITS

Typical applications

Dairy, food and beverage processing	Pump stations and water reticulation	Boiler houses and steam plant
Cold rooms, freezers and refrigeration	Compressed air and energy monitoring	Effluent and water treatment
Building services and generators	Any multi-PLC site nobody can see	

HOW KPJ DELIVERS IT

From site walk to handover

01	02	03	04
Survey	Configure	Install	Hand over
We walk the plant, count the controllers, collect the tag lists and agree what is worth watching.	Address mapping, scaling against real instruments, groups by plant area, alarm rules and recipients.	Installed on the plant PC as a boot service, cameras added, remote access set up with your IT.	Operator and admin training, built-in help, a written configuration record and the first backup.

What we need from you

One Windows PC that stays on, with a network path to each PLC. The PLC tag lists, or time for KPJ to extract them. IT sign-off if you want off-site access. And someone who knows the plant for a day, so the screen uses the names your operators actually use.

Want to see it running?

We will walk your plant, count the controllers and show you what your own values would look like on one screen. No obligation.

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About KPJ Automation

KPJ Automation is an independent industrial controls and automation house in La Mercy, KwaZulu-Natal, and the maker of the ilima range. Stephan Roets brings more than ten years of hands-on plant experience to every job: design, panel build, installation, commissioning and breakdown support. KPJ designs, builds and supports every ilima product itself, so the person who wrote the firmware is the person who answers the phone.

ilima is a product range made and distributed by KPJ Automation (Pty) Ltd · Reg. 2022/646768/07 · La Mercy, KwaZulu-Natal, South Africa. Interface images are representative renders of the software using demonstration data; site and tag names are illustrative. Specifications are current at 9 October 2026 and may change as the product develops. Issued for information; does not form part of a contract. Formerly sold as KPJ Mini SCADA.