visplore Hafslund

Diagnostics & troubleshooting for industrial IoT

From alert to root cause in minutes, not days.

A direct integration between AVEVA PI Vision and Visplore lets engineers and operators go from a flashing KPI to a forensic data deep-dive with a single click. The current event is instantly compared against hundreds of historical situations across dozens of variables revealing what changed, and what didn't.

The gap PI Vision can't close on its own

PI Vision excels at situation awareness it's the first screen you check when something goes wrong. But when you need to understand why a KPI is off, building ad-hoc displays under pressure takes significant time, and PI Vision was not designed for exploring relations between many variables. For many cases, especially outside the central data team, there is no established path to a thorough, data-driven analysis.

KPI turns red
Alert in PI Vision

→

Compare against history
Events x variables, instantly

→

Severity assessed
Root cause identified

1-click
From PI Vision alert to guided comparative diagnostic: same time window, same asset, same tags

0 training
Pre-built templates mean operators only learn to read a handful of charts

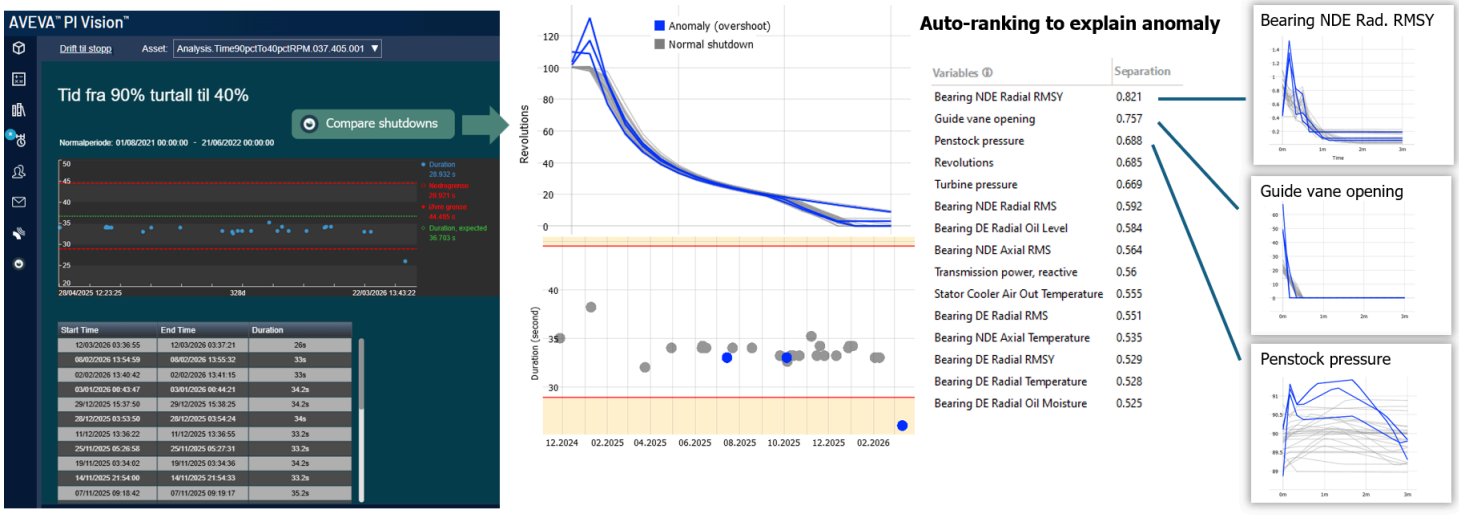
> ***"When I get a yellow or red alarm, my first move now is opening Visplore before I call the site. In ten minutes I know what happened, how serious it is, and whether we need to act."***
>
> - Thor Arne Hvam Bruun,
> Subject Matter Expert Machines, Hafslund

Highlights

- 1-click templates, 0 onboarding
- Plug-and-play for any PI Vision display
- Uses all existing PI structures: AF, event frames, tags
- Visplore contextualizes raw signals, no AF or event frames needed

Value delivered

- Significantly faster time-to-hypothesis
- More confident, data-based decisions across teams
- Broader access to data-driven diagnosis for engineers & operators
- Proven savings of millions of EUR in avoided failures



One click from bad KPI to diagnostics: Visplore compares current anomalous events against historic runs for dozens of variables, and automatically surfaces the largest deviations.

Two ways of integrating Visplore into your PI Vision workflow

01

1-click diagnostic templates

PI Vision display authors embed a button that launches a prebuilt Visplore analysis for the current asset and time window. Visplore overlays the current event against the full history of similar situations across dozens of variables, and automatically ranks which sensors changed most so engineers go straight to the signals that matter. No Visplore expertise required, and a template is set up within hours.

Many events x many variables | Auto-ranked sensors

02

Plug-and-play ad-hoc analysis

A side pane in any PI Vision display lets users push all tags from the current display or symbol into a live Visplore session zero manual tag lookup. PI Vision stays the mental model for navigation; Visplore becomes the immediate analytical layer for filtering, comparing time periods, or comparing assets side by side. Ad-hoc sessions can be published as reusable templates for the whole team.

Zero manual tag lookup | Any existing display

CASE STUDY — HAFSLUND HYDROPOWER, NORWAY

Hafslund

Diagnosing turbine shutdown anomalies across 160 units

Hafslund operates more than 80 hydropower plants in Norway, with over 1,000 PI Vision displays used for situational awareness across centralized and site teams.

Hafslund monitors shutdown duration (90% → 40% speed) for **160 turbines** since any uncontrolled deceleration can indicate mechanical stress or control issues. When a too-fast shutdown was flagged, an operator clicked a button on the PI Vision display configured as the entry point to the Visplore integration. Visplore instantly loaded high-resolution data for all shutdown event frames and overlaid them against the full history of reference runs across dozens of variables. It automatically ranked the sensors that deviated most: bearing vibration, guide vane opening, and penstock pressure all showed anomalous patterns. The user simply browsed the ranked list no manual tag selection needed.

This revealed an overspeed event from a grid disconnection as the root cause, and not a machine malfunction. The delayed guide vane closure from the grid disconnection resulted in a different speed profile. The full diagnosis and team communication were **completed the same day.**

160 turbines	< 30 mins	hours, not days
connected for standardized deep-dive	from alert to root-cause diagnosis	to implement a deep-dive template from scratch

Also relevant beyond energy — Manufacturing

Batch & lot comparison

Compare the current production run against historical good batches across every process variable 1-click access from PI displays.

Quality metric deep-dive

Link scrap events and Cp/Cpk deviations back to process and energy data across the full production chain.

Cross-asset scaling

Apply the same comparative diagnostic template across entire fleets or production lines one template, many assets.

Schedule a live demo using your own PI data.

See Visplore in action!

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