AVEVA

AVEVA™ PI Vision™

See the real-time information you need now

AVEVA PI Vision is a web-based display and dashboard building tool that gives you configurable, self-service visualization for your real-time operations data. Whether you're an operator on the floor or an executive in the head office, you can build reusable displays to understand your operations and conduct on-the-fly monitoring and investigation of your assets and process events. With workspaces designed for immediate industrial operations, you can simply search drag, drop, and configure your analyses and displays.

How can you rely on what you see? AVEVA PI Vision natively integrates with a shared data infrastructure that everyone across your enterprise trusts – AVEVA™ PI Server. By directly tapping into enriched data, AVEVA PI Vision presents information in the context most relevant to you. That way, you can quickly determine the source of problems, share the findings with your team, and take the appropriate action right away.

Key features

Reusable real-time displays

- See real-time process displays in a browser. Securely access, share, and monitor – anywhere.
- Build custom displays in an intuitive workspace with a large selection of adaptable symbols and graphics.
- Display symbols infused with your process and contextual data. Just search, click, drag, and drop.
- Attach multi-state behaviors to symbols and graphics for visual alarms.
- Search the homepage to quickly find your display.

Rapid monitoring and investigation of assets and process events

- Search assets and tags and filter on tag attributes.
- Use the asset-based structure to:
  - Switch the display's context from one asset to another.
  - Carry asset context across different displays with contextual navigation links.
  - Automatically convert a symbol on the display into a symbol collection for all similar assets.
- Select data from multiple displays and see the trends together in the ad hoc workspace for impromptu trending and analysis.
- Use expressions on your data or display symbols to create immediate calculations.
- Use event-contextualized search, analysis, and comparison to investigate data associated with important conditions and time periods affecting your operations.

Scalable performance and management

- Display data from across your entire enterprise with native AVEVA™ PI System™ integration.
- Enable Windows-based as well as modern, claims-based authentication.
- Integrate with AVEVA™ Asset Information Management and AVEVA™ System Platform.

"Today, our process experts follow two hours of training [on AVEVA PI Vision] and they can access our full production process data."

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Marie-Anne Colocouris
Senior Manager, Product and Process Robustness, GSK

Operators and engineers. You play a crucial role in overseeing and maintaining operations and processes. Every day you face challenges from process upsets and equipment failures to unexpected downtime and more. You need consistent access to real-time operations data to immediately troubleshoot issues or to anticipate and prevent problems in the first place. With the AVEVA PI Vision self-service model, there's no need to ask IT for access to data, make multiple trips back and forth to the control room, or engage in lengthy back-and-forth discussions just to pinpoint and pull the data you need.

C-suite, managers, and other business users. Operations data offers an answer to many of your questions. Is production meeting forecast? Is the company compliant with regulations? How is the entire enterprise's fleet performing? Without access to real-time data streams, you may have had to make decisions based on data from yesterday, last month, or last quarter. With AVEVA PI Vision, you see and use live information. From aggregated data and KPIs to raw values, AVEVA PI Vision provides reliable information so you can make quick decisions.

Simple visualization, powerful results

Increased operational awareness

Need an operations overview? Just open the AVEVA PI Vision display workspace. Pick the symbol you'll use to visualize your data. Search your asset structure and tags for the site, equipment, or data of interest, and drag and drop the item onto the display. Getting started is that simple.

Want to add some visual interest or additional context to the display? Drag in some graphics from the out-of-the-box library. Arrange the symbols and graphics and configure their style and behavior according to your preferences. Then, name and save the display.

Did you want to share it with someone? Head into display settings, search, and select the desired user or user groups, assign their permissions, and save. They will automatically have access to the dashboard.

In a few simple steps, you can provide a real-time overview of important assets and processes that your operators and decision-makers can view through any smartphone, tablet, or laptop.
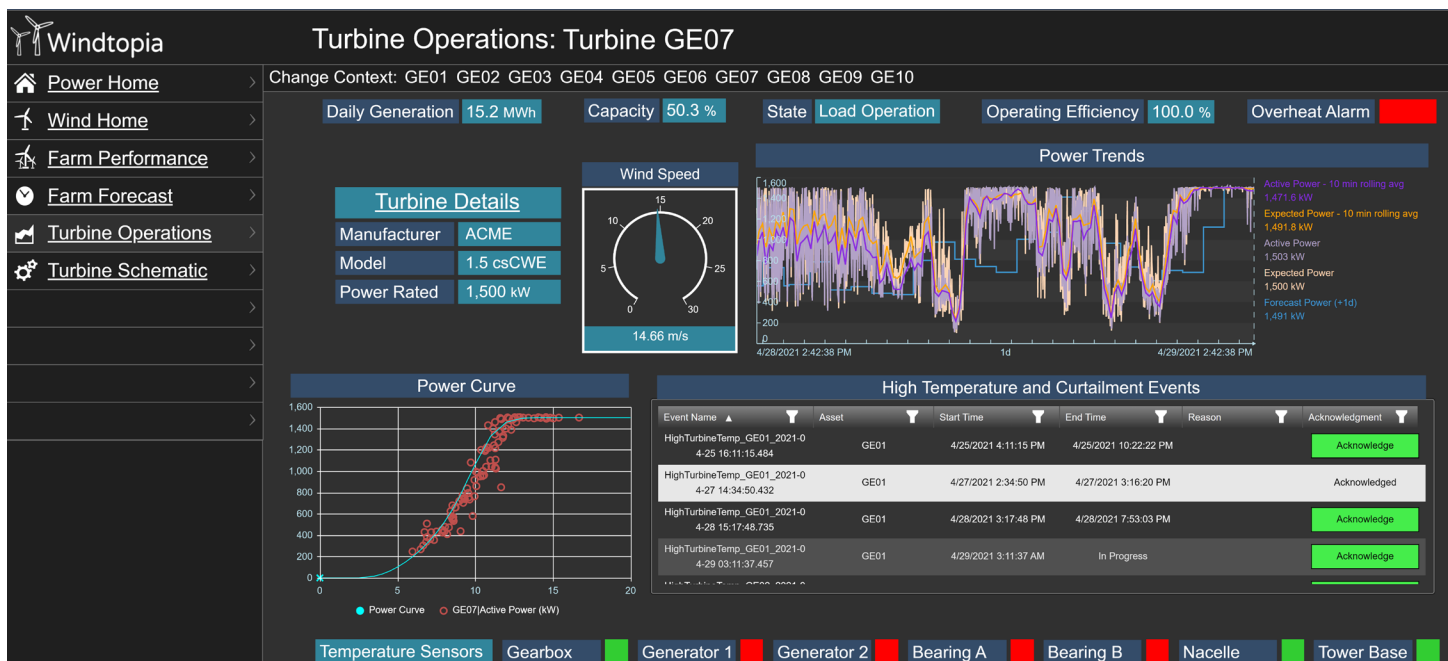

Figure 1: This AVEVA PI Vision display presents KPIs, trends, alarm states, event data, and other contextual information for a wind turbine. With one click, you can change the display's context to another turbine in the fleet. Maintain fleet-wide operational awareness with just one dashboard.

The National Institutes of Health in the United States increased equipment reliability by 50% and saved 10-17% in utility savings per year using AVEVA PI System, including AVEVA PI Vision, to monitor asset conditions, perform predictive maintenance, and optimize processes.

Improved response time

Are you missing important events or alarms? AVEVA PI Vision uses event-enriched data from AVEVA PI Server so you can add an events table to your dashboard. When you assign tables or symbols multi-state behaviors, they'll change color or blink to grab your attention when exceeding the thresholds you've defined.

When an event triggers, AVEVA PI Vision attaches a color-coded severity level to help you prioritize responses. Dive into the priority event. Click the acknowledge button to let your team know you're responding.

Look at the different attributes that make up the event's process behavior. Zoom and scan the event trend, drop cursors on it, and manipulate it to efficiently analyze the information. You can also use the event comparison feature to overlay this event or its attributes with others and identify similarities or differences.

With your analysis complete, annotate the event with your findings to promote instant collaboration and establish a standard for future responses.

Figure 2: In this screenshot of AVEVA PI Vision event details, you can see a bearing temperature event, including trends for the attributes that make up the event. This major event (orange severity level) appears to have been triggered by a sudden drop in the inboard bearing temperature (purple trend). The user has acknowledged the event and is providing a comment, indicating to colleagues that they are troubleshooting the event.

GSK, the global healthcare company with the largest vaccine portfolio and pipeline, used AVEVA PI Vision to view critical process parameters. AVEVA PI Vision helped detect abnormalities that even GSK's classical alarm system could not detect. GSK's use of AVEVA PI Vision led to improved data access, proactively corrected process deviations, increased yield using golden batch comparison, and more than 10 million euros per year in savings.

Streamlined root cause analysis

Notice some strange behavior in your operations data? Dive into the ad hoc workspace to investigate further. Drag your cursor across your trend to quickly see and compare process values at specific points.

Easily change scales and add average, minimum, and maximum trend lines to better understand your data. Get an overview of key values with a quick glance at the summary table. The ad hoc tools in AVEVA PI Vision make exploring your data simple.

Figure 3: In the AVEVA PI Vision ad hoc workspace, this user has added 10-minute rolling averages for three assets' active power. Alongside those three, the user also added the expected power for one of them. Visualizing them altogether on the same trend, the user can conduct an ad hoc analysis to compare actual behavior to expected behavior.

Kimball Electronics, a leading contract manufacturer of electronic subassemblies, used AVEVA PI System with AVEVA PI Vision to identify spikes in screwdriver torque values and to speed up root cause analysis, which saved Kimball Electronics $50,000 to $100,000 when compared to previous failures.

Seamless integration of asset data

Worried about finding the time to add new assets or remove retired assets from displays? Since AVEVA PI Vision uses AVEVA PI Server asset structures and templates, you can simply build one display and reuse it across hundreds of assets.

AVEVA PI Vision detects the assets in operation and automatically populates your displays with the most up-to-date information. Watch as your display instantly reflects the changes you make to your operations.
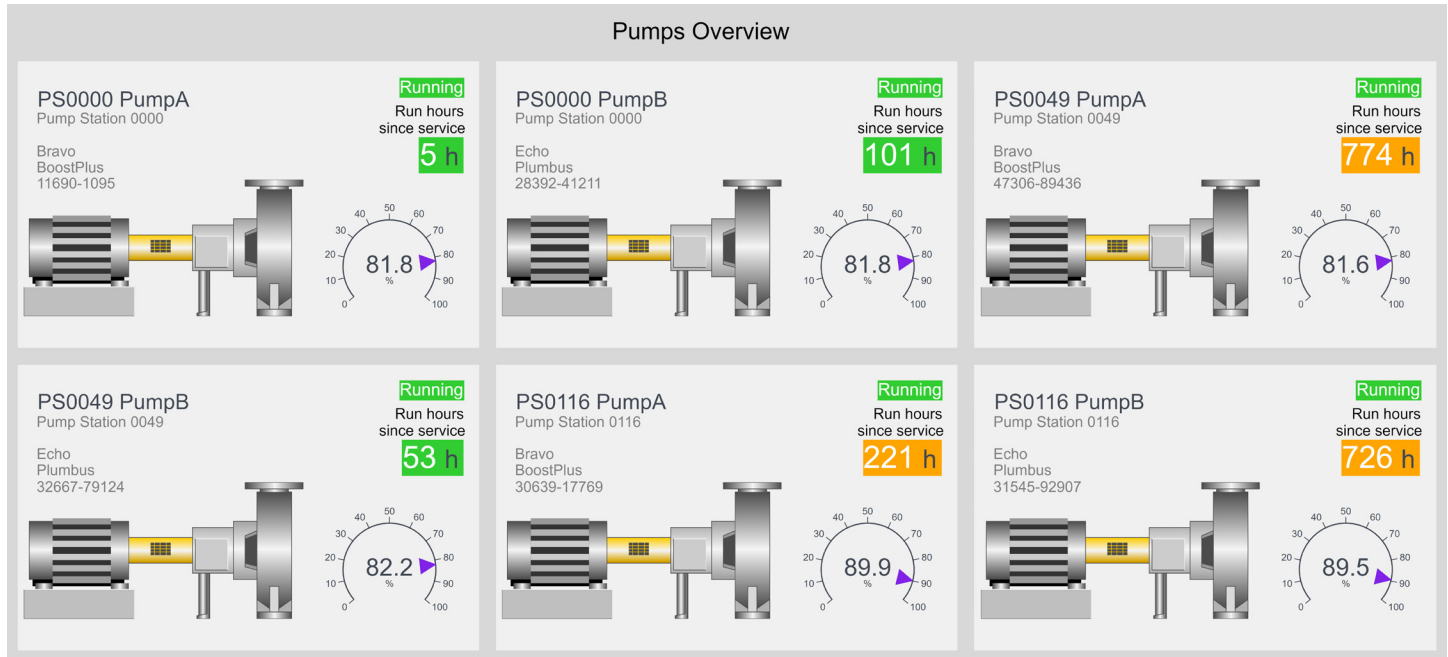

Figure 4: This AVEVA PI Vision display includes a symbol collection. Using the symbols and graphics included, the user built just one of the tiles in the display, then selected the tile, right clicked, and chose 'convert to collection'. AVEVA PI Vision automatically generated the rest of the tiles and populated them with the information. Now the user can easily see that three of the pumps are approaching time for a service check (orange).

TC Energy used AVEVA PI Vision to generate hundreds of dynamic screens for operators and engineers. Thanks to the solution's efficiency and scalability, the company easily deployed and maintains a visualization platform that now serves thousands of operators.

Available with AVEVA™ Flex

Achieve faster return-on-investment and remove traditional barriers to software adoption with a flexible subscription program. The AVEVA Flex subscription program spans any mix of cloud, hybrid, and on-premises solutions with simple license purchases, usage, and management.

AVEVA PI Vision is globally available through AVEVA Flex.

Click here to learn more about **AVEVA Flex.**

Want to learn more about AVEVA PI System?

Check out our **website** for additional information and resources.

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