

A man with glasses and a beard, wearing a dark blue work jacket, stands in a workshop. He is holding a red hard hat in his left arm and a black clipboard in his right hand, looking down at it. The background is filled with various industrial components, including large metal gears and shafts, suggesting a manufacturing or maintenance environment.

# XMPRO

## Event Intelligence Platform



**Microsoft Partner**  
Gold Application Development



XMPRO empowers business users to create and deploy event-driven apps for real-time event intelligence without disrupting operations. With XMPRO's Event Intelligence Platform, business users (subject matter experts) can easily create complex real-time applications that provide situational awareness, are always on, and prescribe and orchestrate appropriate actions.



## Seamlessly Integrate Your IT & OT Systems

Use our integration capabilities to easily connect your heterogeneous technology environment



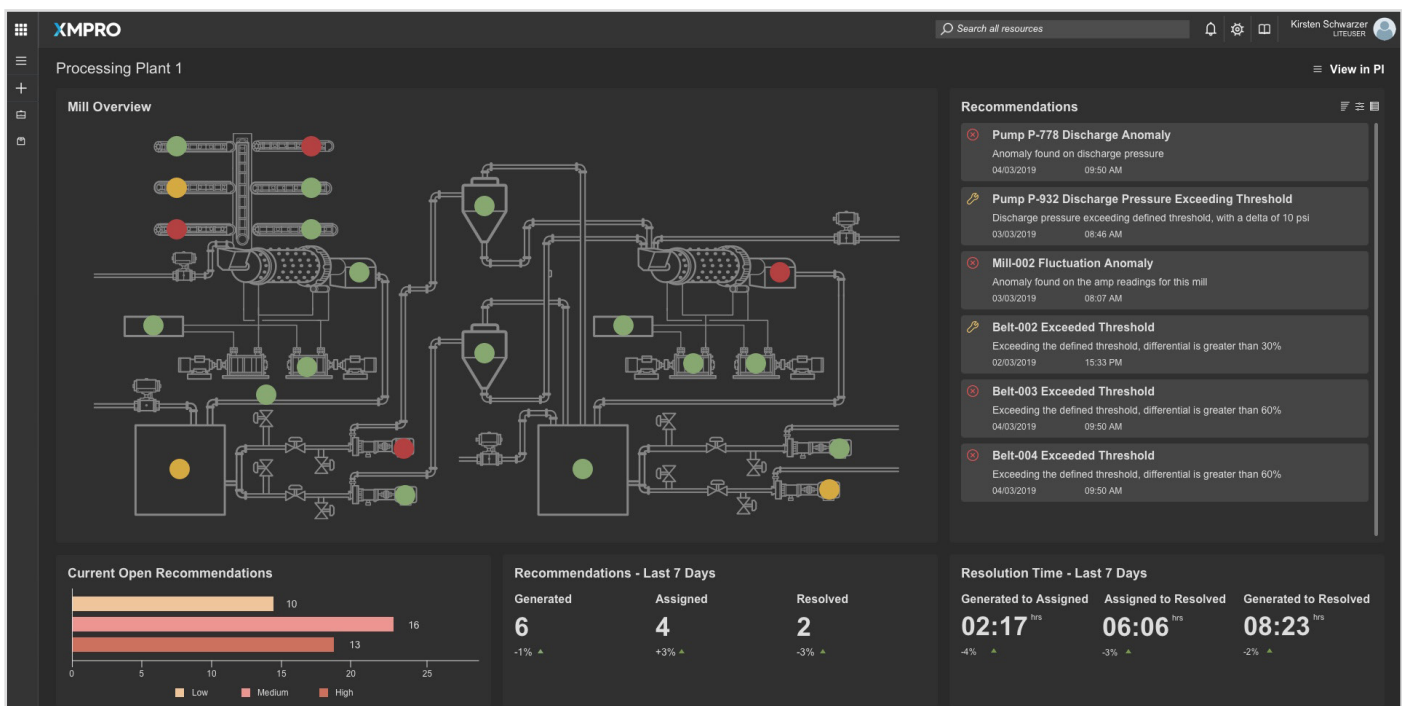
## Get Real-Time Visibility Into Your Operations

Visualize and apply analytics to real-time data from multiple sources to improve your decision-making



## Respond Quicker To Critical Events

Ensure the right actions are taken at the right time with recommendations, decision automation and workflows



## The Types of Problems You Can Solve with XMPRO

### Event-Driven Reliability

- Condition Monitoring on Rotating Equipment with recommendations
- Static equipment - U Coefficient Prediction on Heat Exchanger Fouling & recommendations
- Classified Equipment Monitoring with Real Time Inspections based on operations
- First Principles Mechanical/ Electrical Digital Twins (Physics-based)

### Event-Driven Operations

- Process Event Monitoring and Optimization with closed loop recommendations
- Energy, Power, Environmental and Emissions Monitoring with recommendations
- Process Simulation with Real-Time data synchronization (furnace casting guidance)
- Reduce CHPP Throughput Losses per shift with Event Response Management (ERM)

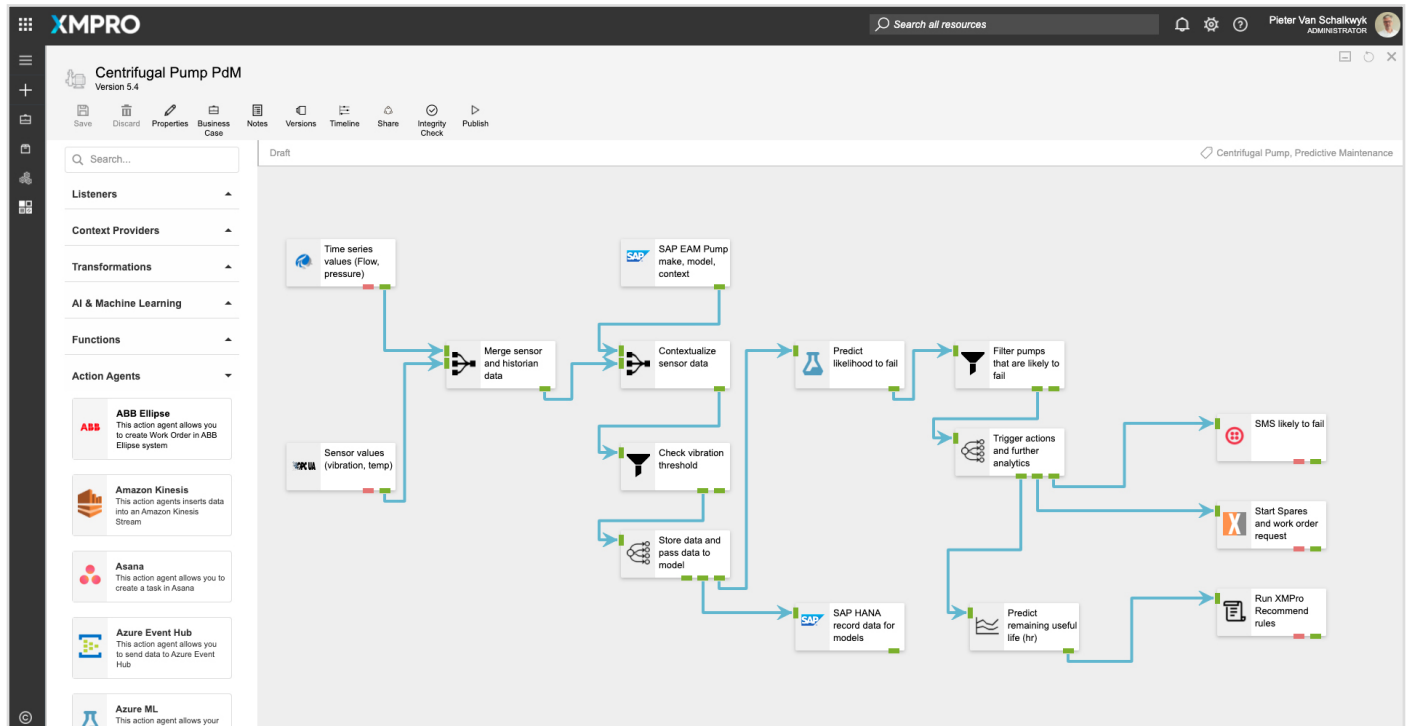
### Event-Driven Organization

- Real-time KPI and Balanced Score Card monitoring with recommendations
- Event-driven Compliance and Safety Monitoring with recommendations
- Capture and Codify Expert Knowledge and augment with advanced analytics
- Integrated Real-time combination of Supply Chain, Reliability and Operations twins

# Visually Orchestrate The Flow of Data

XMPRO

XMPRO's Data Stream Designer lets you visually design the data flow and orchestration for your real-time applications. Our drag & drop connectors make it easy to bring in real-time data from a variety of sources, add contextual data from systems like EAM, apply native and third-party analytics and initiate actions based on events in your data.



## Connect Your IoT Data, AI, Analytics and Business Applications

Most companies spend 50% of IoT project costs on integration. With XMPRO's growing library of 90+ pre-built connectors for enterprise, industrial and emerging technologies, you don't have to. To browse the full connector library go to [apps.xmpro.com](https://apps.xmpro.com)

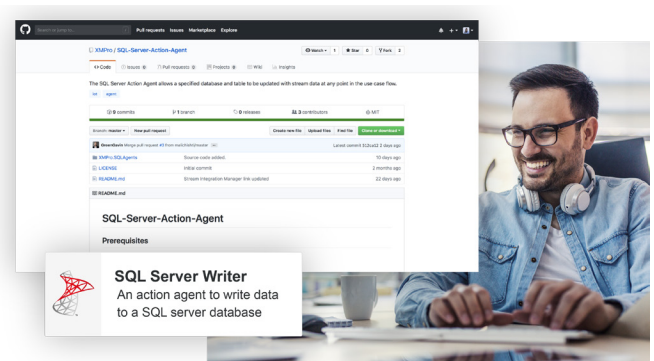
SAP HANA



OPC UA

## Build Reusable Integrations in Days

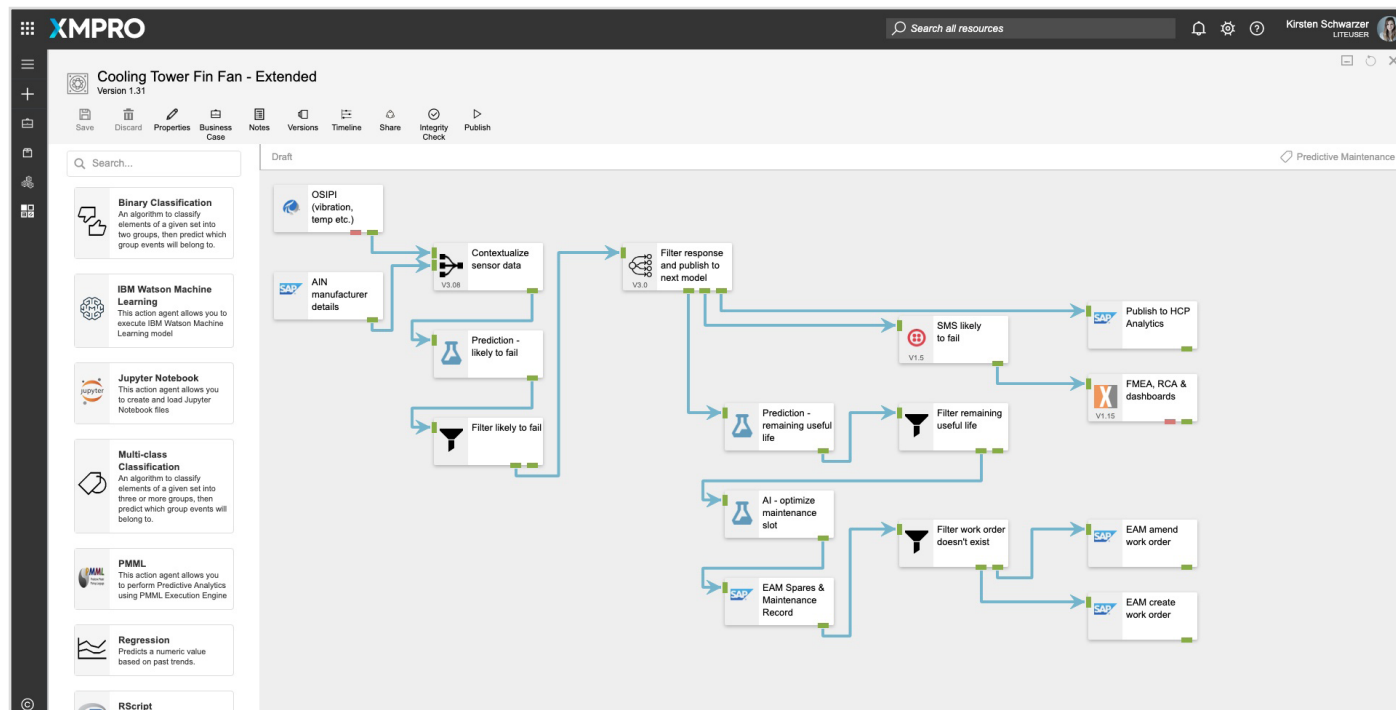
Use XMPRO's pluggable Connector Framework to quickly build secure and robust integrations to connect your disparate systems. Once you've published a new connector, it becomes available as a reusable object in your Data Stream Designer.



# Make Better Decisions Faster with AI & Advanced Analytics

XMPRO

Unlock the value in your existing data science investments by embedding machine learning and AI into your real-time data streams. You can run predictive models and functions like FFT natively on our platform or leverage our connectors for services like Azure ML, SAP HANA and IBM Watson.



## Examples of Real-Time AI & Analytics Applications You Can Build with XMPRO



**Detect Defective Products**  
with Anomaly Detection



**Equipment Remaining Useful Life**  
with Predictive Analytics



**Real Time View of Plant OEE**  
with Operational Intelligence



**Root Cause of Equipment Failure**  
with Causal Analytics



**Production Optimization**  
with Prescriptive Analytics



**Quality & SPC**  
with Computer Vision



Build event-intelligence applications that display machine learning predictions, real-time dashboards with live HMI views and detailed asset information.



Capture the knowledge of your most experienced workers by setting up recommendation rules. When those conditions occur in the real-time data, XMPRO will make a recommendation to the user on how to approach the situation, including contextual information, work instructions and relevant resources to ensure the best response.

**XMPRO**
Search recommendations
🔔 ⚙️ ⓘ Pieter Van Schalkwyk  
ADMINISTRATOR

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## P-778 Discharge Exception

ID: #67    Version: v1.34    Date Generated: Mar 17, 2020 2:40 PM

*My Apps > App Designer > My Recommendations > P-778 Discharge Exception*

### Recommendation Details

An Exception was found on the discharge pressure, out of efficiency range for this pump model

Event Data	
Power	240
PowerSavings	42.307692307692314
PowerTarget	407.68
Feedrate	66.5394287109375
Pressure	35.778

### Comments

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Looks like the same issue we had 3 weeks ago. Please check the suction strainer, it is a new type that is being tested

### Recommendation History

Date Generated	Date Resolved	Resolved by
Mar 17, 2020, 4:40 AM	Mar 17, 2020, 4:40 AM	Pieter Van Schalkwyk

### Additional Information

**Work Order Number**

**Work Request Number**

**Work Instructions**

Possible problems causing a discharge pressure drop:

Blocked Suction Pipe  
A partial obstruction can be caused by a piece of foreign material being drawn across the bottom of the suction pipe during the operation of the pump. Such an obstruction may not be sufficient to stop operation completely, but will result in a reduced output from the pump. It will also cause a drop in discharge pressure and amps, and will increase the vacuum reading on the pump suction. Rough running and vibration of the pump may also occur due to cavitation within the pump.

Blocked Impeller  
Impellers are capable of passing a certain size particle. If a particle larger in size enters the suction pipe, it may become lodged in the eye of the impeller, restricting the output of the pump. Such an obstruction will usually result in a drop of amperes and a drop in both discharge pressure and suction vacuum readings. The out-of-balance effects resulting from this condition may cause pump vibration.

**SHUTTING DOWN PROCEDURE**  
Before you shut down the pump, it should be allowed to operate for a short period on only clean water to clear the system.

Then proceed as follows:

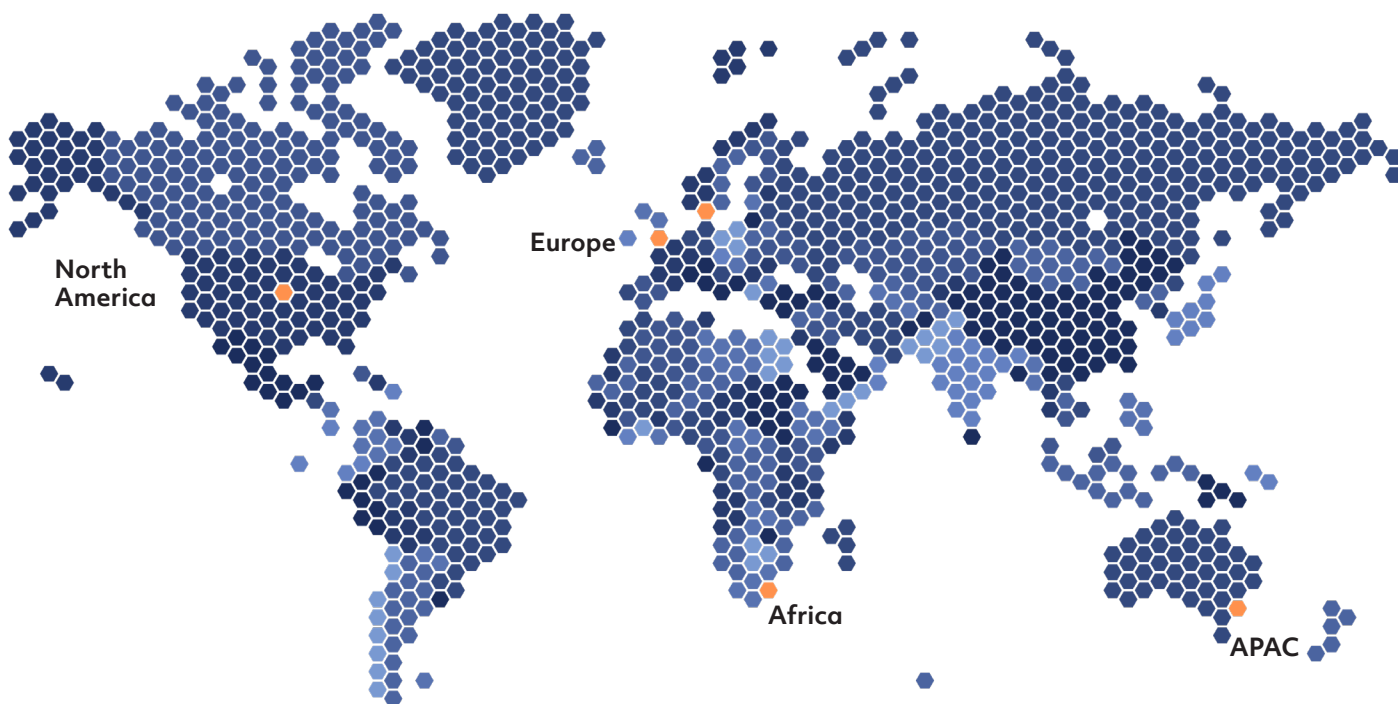
- Depress the 'STOP PUMP' push-button on the control panel.
- Gland seal water (if any) must be left on during all subsequent operations, namely: start-up, running, shutdown, runback and system drain. Gland water may only then be turned off.

**Resources**

[Warman Test Procedure](#)

Did this recommendation solve the problem? 👍 👎

XMPRO is the leading provider of Event Intelligence for asset-intensive industries. XMPRO's Event Intelligence Platform enables engineers and subject matter experts to build real-time event-driven applications with little or no coding required. Founded in 2009, XMPRO has a proven track record of helping organizations in industries like Mining, Manufacturing, Oil & Gas, and Energy/Utilities improve operational excellence.



## History

XMPRO was founded in 2009 with a focus on intelligent business process management (BPM) solutions for industry, and received the Gartner BPM Cool Vendor award in 2012. In 2015, XMPRO released its Event Intelligence Platform, which extended its BPM capabilities to help asset-intensive organizations rapidly gain insight from the massive amount of real-time data available in Industrial IoT. XMPRO joined the Industrial Internet Consortium in 2015 and actively contributed to peer-reviewed articles and whitepapers, as well as leading the Industrial Digital Transformation, Digital Twin Interoperability and Industrial Distributed Ledger Task Groups. In 2020, the company joined the Digital Twin Consortium and currently co-chairs the Natural Resources Working Group.

## Contact Us

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 [xmpro.com](http://xmpro.com)

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