

Decision Support

Extending the power of System 1 to help eliminate unplanned maintenance and gain new insights



Challenges of modern industrial operations

- Overwhelming quantity of data—can't continuously monitor and analyze
- No central knowledge base for tracking and retaining corporate knowledge
- Inability to acquire and deploy proven analytics and documented failure modes
- Aging workforce means losing machine and plant knowledge
- Complexity of available tools make algorithms and issues difficult to manage
- Difficult to correlate analytic results with disparate historian platforms

Decision Support helps solve these problems and elevates your monitoring from reactive to proactive

Decision Support's comprehensive capabilities



Build

Build rules in a graphical user interface that's intuitive and simple to use



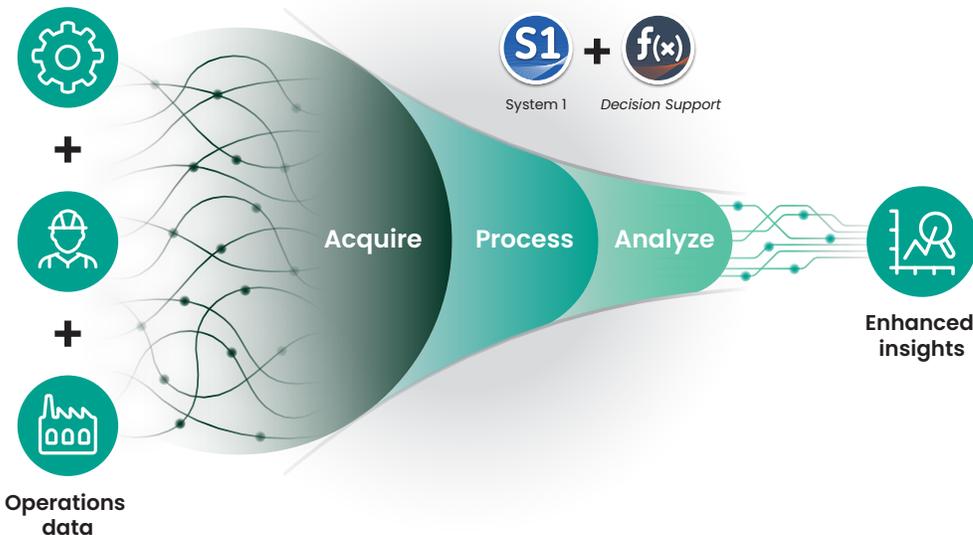
Deploy

Analytic results seamlessly integrate with the System 1 data historian



Manage

Easily modify existing rules, and copy them as the starting point to edit and create new ones



Tested, trusted, and built on a legacy of Bently Nevada machinery know-how and customer engagement

- On the market for over 20 years, System 1 is a pioneer in machinery condition software
- The result of input from end users in ~35 of the biggest industrial companies in the world across 15 countries and 50 sites
- 12 remote monitoring centers
- Over 10,000 System 1 users
- 300 field and diagnostic engineers to provide unmatched support worldwide

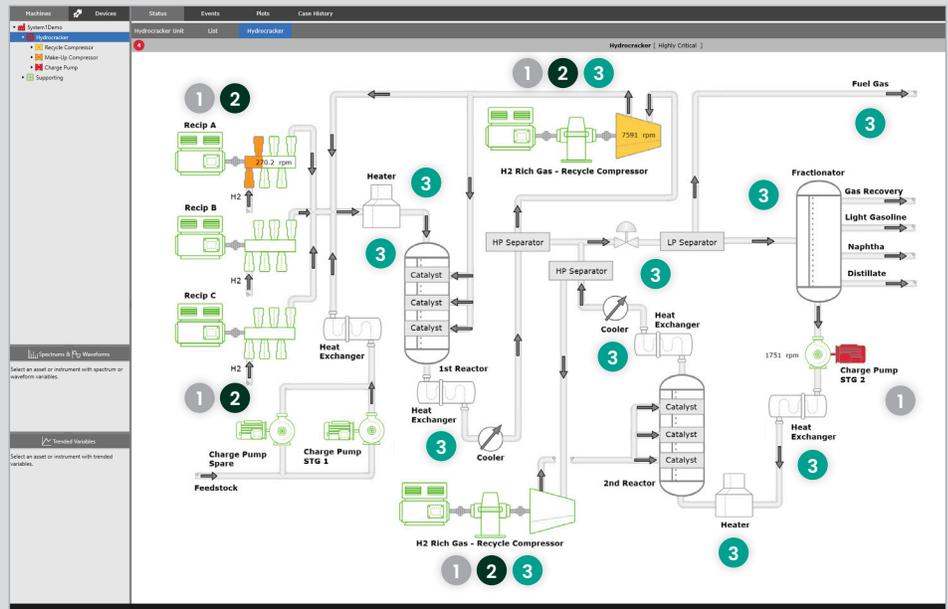
Truly connected plant-wide analytics

- Utilize System 1 data to build rules that detect machinery, process, and auxiliary system issues
- Develop analytic insights using the simple and intuitive rule-building workspace
- Deploy created rules to multiple assets and quickly and simply modify already deployed rules
- Efficiently share rules between sites and units, achieving consistency in fault detection across a global operation
- View resulting insights within the System 1 platform, leveraging its notification, visualization, and diagnostic toolset
- Export analytic insights from System 1 to third-party AI solutions for further analysis



System 1 and Decision Support: Supplying information from the edge to the cloud

- Gain new insight into equipment and process behavior
- Reduce time spent performing manual diagnostics
- Use Decision Support rules to qualify and derive data for root cause analysis associated with simple or complex scenarios
- Capture, document, and share knowledge
- Leverage System 1's core capabilities such as notifications and plotting
- Automated failure mode detection



1. Failure modes

- Rotor instability (whip/whirl)
- Rotor imbalance
- Rub
- Bearing wear
- Misalignment

2. Process

- Compressor—suction strainer issue
- STG N intercooler problem/fouling
- Pressure and temperature ratio calculation
- Possible liquid carry over compressor
- Compressor—suction drum level high

3. Auxiliaries

- Dry gas seal problems
- Seal oil problems
- Lube oil pressure and temperature problems
- Lube oil filter problems
- Oil quality