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Minimizing Downtime: Moving From Reactive To Proactive Operations

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Industry experts ARC Advisory Group recently reported that the global process industry loses $20 billion annually from unplanned downtime.

While companies have spent millions trying to address the issue, they have only been able to address wear and age-based failures until now, as the lack of insights into the process-induced failures that cause over 80% of unplanned downtime stood in the way of accurate findings.

In order to address this issue, organizations require a new way of thinking about how to manage asset performance and move from reactive to proactive operations.

Asset Optimization: The Next Frontier

Asset Optimization is the next frontier for minimizing downtime. It provides a comprehensive, holistic approach to optimizing production assets across the entire lifecycle, spanning the initial capital investment to on-going operations to subsequent capital investments to eventual retirement.

In combination with asset data, first principles and empirical models, and process knowledge, Asset Optimization goes beyond process optimization to provide advanced analytics to create a world that doesn't break down.

As a result, organizations have the ability to provide process insights, predict failures and obtain prescriptive actions to mitigate or prevent problems, building sustainable competitive advantage throughout the entire lifecycle of the asset.

For example, with advanced machine learning software, companies have already demonstrated incredible successes in the early identification of equipment failure. Such software is near-autonomous and learns behavioral patterns from the streams of digital data that are produced by sensors on and around machines and processes.

Automatically, and requiring minimal resources, this advanced technology constantly learns and adapts to new signal patterns when operating conditions change.

Failure signatures learned on one machine "inoculate" that machine so that the same condition will not recur. Additionally, the learned signatures are transferred to similar machines to prevent them being affected by the same degrading conditions.

Creating a System of Success with Asset Optimization

Asset Optimization empowers better and more informed decisions. It is also made more powerful with the Industrial Internet of Things, which accelerates the optimization of business assets.

Supported by the capabilities of cloud computing, visualization and mobility, key stakeholders gain better insights into the use of data to address real-time operational needs.

The potential of applying asset optimization to the world's most complex, capital-intensive industries will be experienced first by design, operations and maintenance departments, and then throughout the enterprise in new and unexpected ways.

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Business | Downtime | Management | Opinion | Study | Survey