



APM Reliability

Reduce unplanned downtime
by predicting equipment issues
before they occur

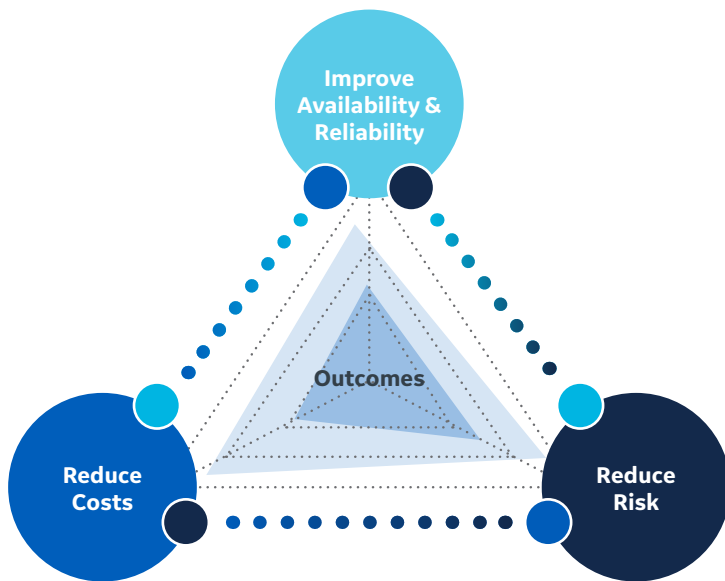


[ge.com/digital](https://www.ge.com/digital)

Business challenges

The external environment—including a flat global economy, pressure to grow revenue and profit, tighter regulations, and increased competition—has significantly changed the way assets are operated. But internal inefficiencies, including lack of operationally relevant insight, still prevent companies from optimizing asset performance.

Operators are challenged by a lack of visibility into their assets' data and by not having appropriate predictive diagnostics to know in advance when asset failure is about to occur—and why. Instead, operators often use a time-based approach to maintenance, which doesn't take into consideration the way assets are being utilized, their current condition, and real-world operating conditions. Operations and maintenance (O&M) teams miss signs that equipment is about to fail. And they insert more risk into the equation by doing unnecessary routine maintenance. The results: even more inefficiencies, risks, unplanned downtime, and costs.



A continuous loop of improvement

Asset Performance Management (APM) is a suite of software and service solutions designed to help optimize the performance of your assets. APM increases asset reliability and availability while optimizing maintenance costs, mitigating operational risks, and reducing total cost of ownership (TCO). The suite connects disparate data sources and uses advanced analytics to turn data into actionable insights while fostering collaboration and knowledge-management across the organization. APM works across all equipment, all OEMs, and all industries, across the plant, and across the fleet. APM gives organizations the flexibility to develop new analytics and applications, making it versatile to meet changing needs.

So how can your organization address these key business challenges head on?

APM Reliability

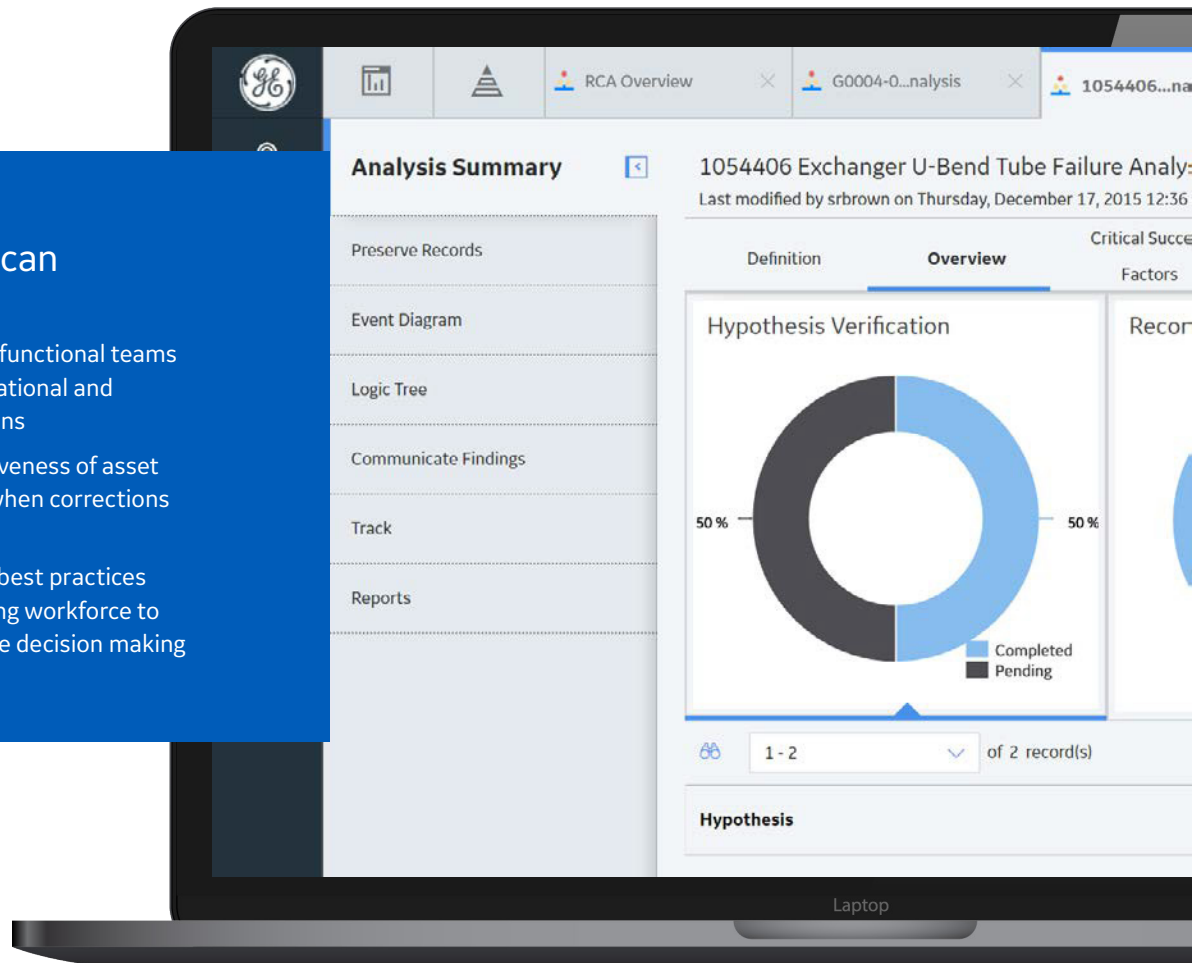
With APM Reliability, an Asset Performance Management (APM) solution, asset-intensive organizations can leverage advanced predictive diagnostics to analyze data, and detect and diagnose asset issues before they occur. This allows companies to schedule downtime and control costs on their own terms.

APM Reliability is designed to work across all assets (fixed, rotating, and non-rotating), all equipment types and manufacturers (GE and non-GE), and all industries—across the plant and across the enterprise.

[VIEW DEMO](#)

APM Reliability can help you:

- **Collaborate** across functional teams to make better operational and maintenance decisions
- **Measure** the effectiveness of asset strategies to know when corrections are warranted
- **Develop** and retain best practices from an ever-changing workforce to continuously improve decision making



Capabilities of APM Reliability

- **Digital twin blueprints**

Digital twin blueprints enable the analyst to anticipate or identify failure of an asset with longer lead time to improve reliability and performance by modeling the asset's expected versus observed states. The analyst can leverage structured time-series data and unstructured data, including process parameters and condition alerts, in the context of the assigned maintenance strategy and actual maintenance performed. It can also compare operating conditions and performance with other like assets.

- **Root cause analysis**

Root cause analysis (RCA) uses a standard methodology for investigation of failures, provides better understanding and analysis of the underlying cause of failure, and captures and institutionalizes that information to help prevent future occurrences.

- **Reliability analysis**

Reliability analysis provides a comprehensive set of analytical tools to help understand causes of asset failure patterns and the true cost of failure. These tools can help you analyze data to identify bad actors and recurring asset failures, develop operational and maintenance strategies, and evaluate the effectiveness of those strategies over time. Wizards allow users to quickly build growth, Weibull, cost of unreliability, and production analyses.



Real customer results

Salt River Project (SRP)

May Millies, Manager, Power Generation Services, SRP:

SRP uses APM Reliability *“to help us get to ‘no unplanned downtime’ by moving us to more planned outages instead of reactionary or emergency outages and to show us when things are going to happen instead of waiting until they occur.”*

[WATCH THE SRP VIDEO](#)

Delta Air Lines

Jeff Slagle, General Manager, Propulsion Engineering, Delta Air Lines:

“It’s ok to collect data—but in the end you have to really do something with it.” Delta uses APM Reliability to analyze engine data—from 14 models, 4 OEMs— to detect changes and keep its passengers safe.

[WATCH THE DELTA VIDEO](#)

GE Digital's APM Suite

GE Digital APM increases asset reliability and availability while optimizing maintenance costs, mitigating operational risks, and reducing total cost of ownership (TCO). The software connects disparate data sources and uses advanced analytics to turn data into actionable insights while fostering collaboration and knowledge-management across the organization. Available on premises or in the cloud, APM works across all equipment, all OEMs, and all industries, across the plant, and across the fleet.



Industrial Data Diagnostics

Pinpoint opportunities to improve data quality and asset performance

Data quality recommendations
Benchmark analytics

Failure mode analysis
PM diagnostics

Manufacturer comparisons
Improvement tracker



APM Health

Unified view of assets' current state & health

Rounds / Rounds Pro
eLogs
Health manager
Calibration management



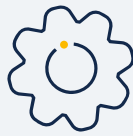
APM Reliability

Predicting equipment issues

Reliability analytics
Root cause analysis
Performance Intelligence
Thermal Performance and Economic Advisory

SmartSignal

Predictive diagnostics
Digital twin blueprints



APM Strategy

Reduce risk & optimize life cycle cost

RCM/FMEA
Strategy management
Strategy optimization
Strategy implementation
Lifecycle cost analysis



APM Integrity

Helping to keep facilities contained & compliant

Compliance management
Inspection management
Thickness monitoring
Risk based inspection



APM Safety

Reduce hazards risk within industrial processes

Hazard analysis
SIS management
Management of change



APM Foundation / Essentials

IT/OT Connectivity & Integration

EAM systems
HMI/SCADA, Historian, MES systems
Edge OT connectivity and analytics
GIS systems

Data Management & Processing

Common asset model (or) hierarchy
Analytics management and execution*
Infrastructure Data Fabric*
Policy designer
End-to-end security

Monitoring, Analysis & Event Management

Advanced Visualization*
Dashboards, interactive data analysis
Criticality, alerts, cases, recommendations
HMI visualizations and alarms*



APM offers multiple benefits

- Improves reliability, availability, and productivity
- Optimizes maintenance costs
- Mitigates risk
- Maintains technical expertise (tribal/organizational knowledge)
- Delivers continuous improvement

[Learn more about our complete APM offering](#)

Do you want to learn more about how you can use your data to detect and diagnose equipment problems before they occur?

Visit our website to learn more about APM Reliability.

[VISIT OUR SITE](#)

About GE

GE Digital, an integral part of GE Vernova's portfolio of energy businesses, is a \$1 billion software business putting data to work to accelerate a new era of energy. GE Digital has pioneered technologies like Industrial AI and Digital Twins to serve industries that matter for decarbonization like energy, manufacturing, aviation. Our software drives insights customers need to transform how they create, orchestrate, and consume energy. Over 20,000 customers world-wide use our software to fuel productivity and reliable operations while reducing costs and carbon for a more sustainable world. For more information, visit www.ge.com/digital. GE Vernova, a dynamic accelerator comprised of our Power, Renewable Energy, Digital and Energy Financial Services businesses, focused on supporting customers' transformations during the global energy transition.

Contact Information

Americas: 1-855-YOUR1GE (1-855-968-7143)

gedigital@ge.com

www.ge.com/digital

© 2022 General Electric Company – All rights reserved.

GE Digital reserves the right to make changes in specifications and features shown herein, or discontinue the product described at any time without notice or obligation. Contact your GE Digital representative for the most current information. GE and the GE Monogram, are trademarks of General Electric Company. GE Digital, a division of General Electric Company.