

APM INTEGRITY

One-stop shop to optimize
your Enterprise Mechanical
Integrity program



GE VERNOVA

ADDRESSING YOUR MODERN BUSINESS CHALLENGES

Owner operators must address mounting safety and environmental pressures with systems that ensure the safe operation and containment of their processes. Mechanical integrity regulations require a significant amount of data be captured to ensure process equipment is designed, fabricated, installed, operated, and maintained properly to mitigate associated risks. The overabundance of data makes it increasingly difficult to understand current risk levels and drive optimization of mechanical integrity inspection and engineering resources.

APM INTEGRITY IS BUILT FOR DYNAMIC RISK

APM Integrity, part of GE Vernova's Asset Performance Management, equips asset-centric organizations with an integrated set of tools to calculate risk and asset lifetimes to generate, implement, and execute optimized inspection strategies while streamlining auditability and compliance governance.

Designed with enhanced mobility, contextual visualization, and dynamic risk evaluation, APM Integrity offers customers a comprehensive, scalable, and sustainable solution tailor-made for their fixed asset mechanical integrity program.

BENEFITS

01

Fully integrate mechanical integrity and inspection initiatives across an enterprise resulting in higher asset availability and lower catastrophic incident probability

02

Develop and optimize inspection strategies through risk-based inspection methodologies (API RP 580, 581)

03

Enable compliance with OSHA 1910.119 process safety management requirements and manage risk at an optimum level using configurable reports, metrics, dashboards, and key performance indicators

04

Integrate with EAM/SAP to manage work processes

05

Improve inspector productivity by using digital mobile inspection technologies that are more efficient than paper-based methods

06

Automatically re-analyze integrity and safety risk, based on data from field inspections, UT programs and process historians to ensure strategies are adjusted to mitigate failure risk

REAL COST-SAVINGS & RELIABILITY RESULTS



Client: Supermetanol

\$325K

Saved annually in inspection costs



Client: SABIC

1,135%

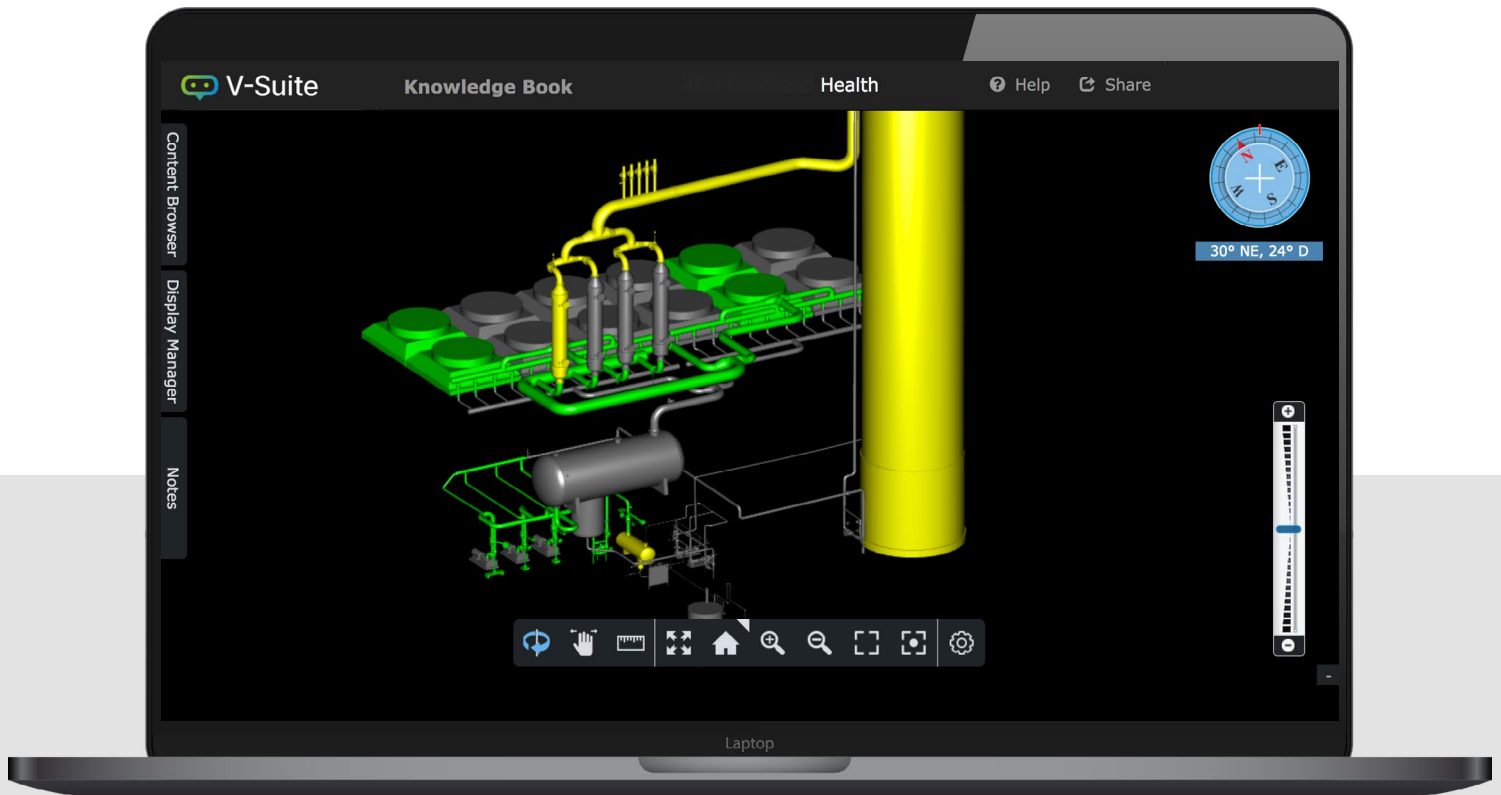
Improvement in mean time between failures



Client: Cristal Global

£2.2M

Saved annually with Risk Based Inspection



3D Visualization

Enhance contextual and situational awareness of critical assets

Through GE Vernova's partnership with Visionaize, APM Integrity applications such as Risk Based Inspection (RBI), Inspection Management and Thickness Monitoring now include enhanced 3D visualization capabilities for critical fixed assets in the plant.

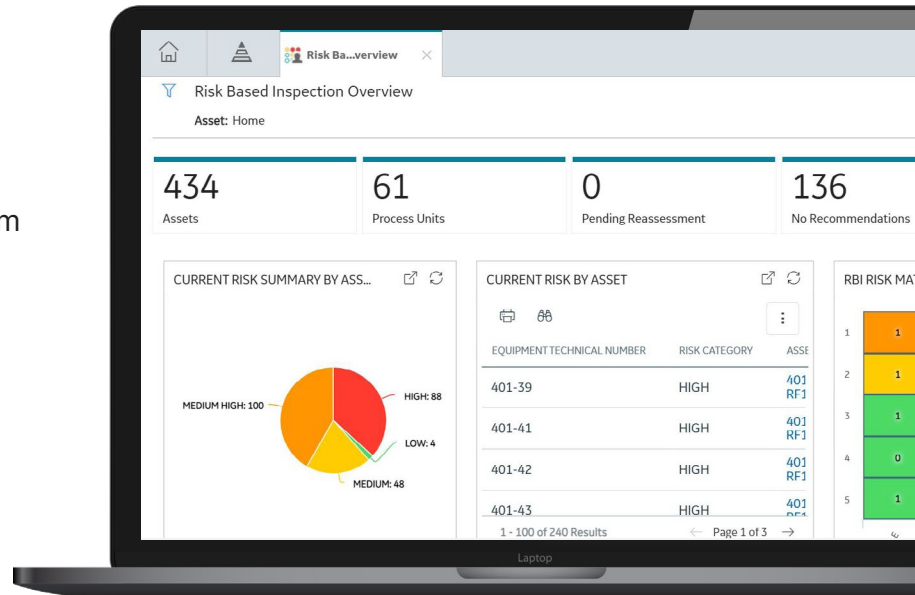
- Ability to have risk, corrosion and thickness data presented both digitally and graphically on the respective 3D models
- Enhances decision-making ability of daily users such as inspectors, planners, technicians, and corrosion analysts

Risk Based Inspection (RBI)

Avoid equipment failures and potential risk related to fixed assets

Assess the likelihood and consequences of failure to optimize inspection rigor based on overall risk (compliant with American Petroleum Institute (API) standards 580 and 581).

- Define corrosion loops and integrity operating windows (IOWs), assign potential degradation mechanisms (PDMs), and rank equipment based on risk.
- Integrate with inspection management and maintenance programs
- Ability to perform bulk evergreening and re-assessment of RBI analyses

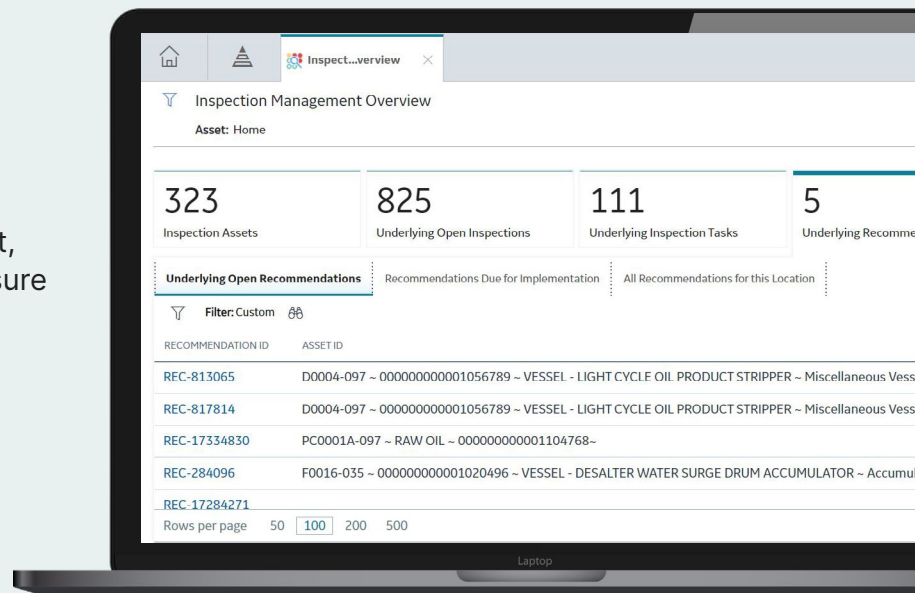


Inspection Management

Lower inspection costs

Manage inspection plans on a variety of asset classes, document the condition of each asset, and track inspection recommendations to closure

- Capability to support large-scale inspection programs
- Ability to capture inspection data using mobile devices and synchronize with APM
- Integrate with EAM/SAP

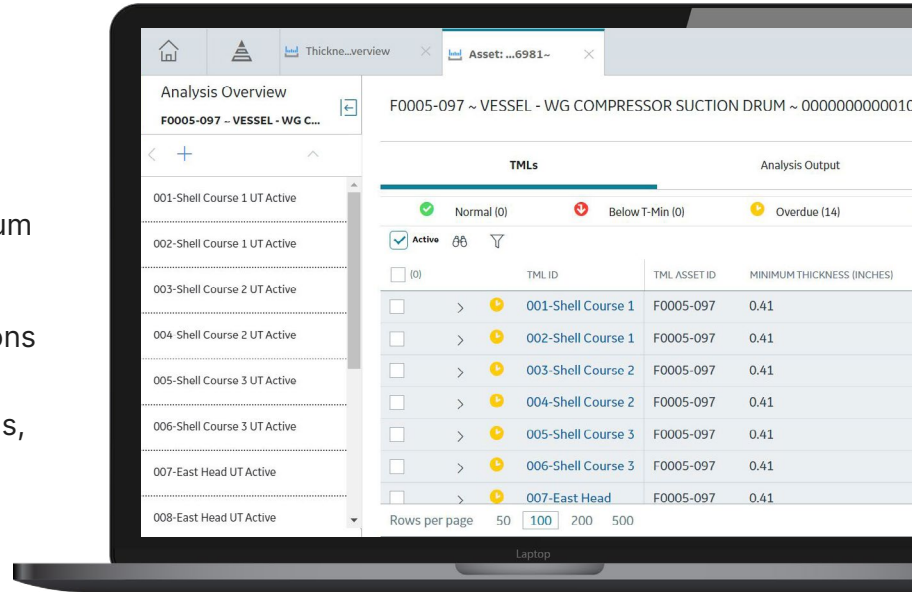


Thickness Monitoring

Improve efficiency and reduce risk related to corrosion

Manage large-scale corrosion and thickness measurement programs – calculate the minimum thickness required to safely operate the equipment, corrosion rate analysis, as well as next-inspection and retirement-date calculations

- Applicable to a diverse set of stationary equipment, such as pipelines, piping, vessels, exchangers, tanks, boilers and more
- Ability to manage rotation of pipes used in slurry pipelines to mitigate severe erosion

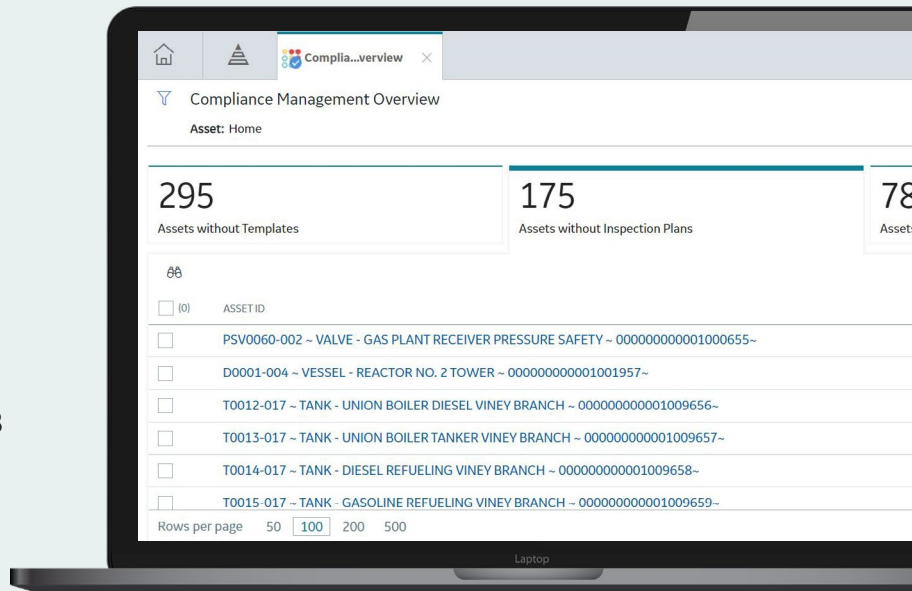


Compliance Management

Monitor Equipment Compliance

Track when your equipment should be inspected to comply with global standards

- Applicable across geographical locations, regulatory bodies and industry authorities
- Enable inspection requirement as per NR-13 (Brazil) and BetrSichv (NR-13) regulations



GE Vernova's APM boosts asset reliability, reduces maintenance costs, mitigates risks, and lowers Total Cost of Ownership (TCO). It integrates diverse data sources with advanced analytics for actionable insights and fosters collaboration and knowledge management. Available on premises or in the cloud, APM works with all equipment, OEMs, and industries across plants and fleets.



APM Foundation/ Essentials

IT/OT connectivity and integration

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

Data management and processing

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

Monitoring, analysis, and event management

- Advanced visualization*
- Dashboards, interactive data analysis
- Criticality, alerts, and recommendations
- HMI visualizations and alarms*

*Cloud only



APM Reliability

Predicting equipment issues early

- Reliability analytics
- Root cause analysis
- Performance Intelligence
- Thermal performance and economic advisory
- SmartSignal
- Predictive diagnostics
- Digital twin blueprints



APM Health

Unified view of assets' current state and health

- Rounds/Rounds Pro
- eLogs
- Health manager
- Calibration management



APM Strategy

Minimize risk and optimize lifecycle costs

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



APM Safety

Reduce hazards risk within industrial processes

- Hazard analysis
- SIS management
- Management of change



APM Integrity

Ensuring compliance and containment

- Compliance management
- Inspection management
- Thickness monitoring
- Risk Based Inspection (RBI)



EXPLORE THE BENEFITS OF APM

It's time to optimize your asset integrity program to reduce risk, lower inspections costs, and improve employee productivity.

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

Get started



Take a demo

