# 3D Visualization in APM Integrity from GE Digital

ege.

in partnership with Visionaize, Inc.

# Accelerating the digital transformation journey with real-time visibility of your asset risks

The APM Integrity module of GE Digital's APM solution reduces risks, lowers inspection costs, and helps manage regulatory compliance. Its integrated applications including Risk Based Inspection, Inspection Management, Thickness Monitoring, and Compliance Management were developed to optimize a customers' Mechanical Integrity (MI) program. Now, GE Digital has partnered with Visionaize to offer its V-Suite Starter, adding 3D visualization capabilities and greater situational awareness of fixed assets to improve productivity and decision-making.

**V-Suite Starter** provides data-driven visualizations of key APM Integrity attributes such as risk, corrosion analyses, and integrity operating windows, allowing users to be effective in their daily jobs and integrity departments to optimize their overall inspection programs. Customers can contextualize real-time and historical asset data on the 3D model that is available online and offline.

# Key features of V-Suite Starter

- 3D Integration with APM
- Dynamically Display/Colorize Mechanical Integrity Digital Twin model
  - Corrosion Loops
  - Corrosion Monitoring Location
  - Corrosion Analysis Summary
  - Damage Mechanisms
  - RBI Risk
  - Integrity Operating Window
- Available in Desktop & Mobile

# Technical requirements

Visionaize works with GE Digital internal APIs to connect to APM in the cloud or on-prem. V-Suite Starter is not embedded into APM but is accessed via a hyperlink that opens the software.

- On-Premise Prerequisite: APM Foundation and APM Classic Mechanical Integrity license
- Cloud Prerequisite: Predix Essentials and APM Mechanical Integrity subscription









# V-Suite functionality grouping

#### VIEW / MANIPULATE / NAVIGATE

Navigation Modes	$\bigcirc$
Customization	$\otimes$
Measurement	$\otimes$
Asset Properties (Internal & External)	$\otimes$
Image Viewing	$\otimes$
Activate Predefined Display Filters	$\bigcirc$
Help System	$\bigcirc$

#### SEARCH

Search on Asset Attributes	$\otimes$
Search for Views or Assets by Name	$\otimes$
Run Predefined Queries	$\otimes$
View Results in 3D	$\otimes$
Save Predefined Queries	$\otimes$

#### PRINT

Print Current View	$\bigotimes$
Export to Image File	$\otimes$

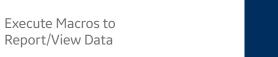
#### **KNOWLEDGE BOOK**

Open Predefined Knowledge Views	$\otimes$
Create New Knowledge Views	$\otimes$
Create Marked Points & Labels (Ex: TML)	$\otimes$
Display & Hide Assets & Layers within the View	$\otimes$
Modify Asset Attributes	$\otimes$
Add File Links to Assets	$\otimes$

#### INTEGRATION ADAPTERS

Dynamic Access to Data Sources	$\otimes$
Dynamic Access to Integration Adapters	$\otimes$
Customer Adapter Interoperability	$\otimes$

#### **AUTHOR**



## Customer use and benefits

#### APM Integrity + V-Suite Starter

- **3D Immersive Model:** Mimic the asset hierarchy for the assets mapped from APM Integrity into V-suite.
- **Information Pods:** Equip the analysts with critical information of the 3D mapped APM components during key decision-making steps (e.g., RBI data, Corrosion analyses etc.)
- **Download the 3D model:** Provides a schematic view of the asset with key information to the operators/inspector during field data collection
- Smarter Actions: Creating corrective recommendations as a follow up action

#### Value Drivers

- Minimize Downtime: More efficient planning accelerates planned and unplanned downtime activities
- Reduce Operating Costs: More efficient inspection and maintenance planning and execution
- Reduce Risk & Improve Worker Safety: Situational awareness and less time spent in hazardous environments
- **Faster Incident to Resolution:** Accurate 3D model allows inspectors to take action in APM from the field.
- Simplify Regulatory Compliance: Quickly identify missing/needed compliance documentation

### V-Suite Starter vs. Engineering CAD solutions

- True Operational Digital Twin: Exact replicas of the physical environment
- Robust integration with enterprise applications
- Much quicker to deploy and maintain
- Very intuitive & easy to use: Minimal training required
- **Eminently scalable:** Template-based solution simplifies replication across sites and reduces implementation cost by 40-60%



Learn more about 3D Visualization in APM Integrity Contact Us >

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