

Space-Time Asset Composite

Space-Time Asset Composite:
for holistic geospatial asset intelligence
for asset lifecycle management.

- Real-Time Data Integration
- Condition-Based Maintenance
- Geospatial Visualization of Asset Condition
- Geographic Visualization of Maintenance Activities and Asset Performance
- Financial Impact and Emissions Analysis
- Geospatial view and analysis of renewable energy assets i.e. wind turbines
- Situation Room

Real-Time Data Integration

Seamless integration with existing enterprise systems such as GIS, EAM, CBM, Network Management, ERP, load forecasting, dispatch, outage planning, environmental, health and safety (EH&S), governance, risk and compliance (GRC), inventory, asset investment planning and from real-time weather and temperature feeds

Condition-Based Maintenance

Features detect and identify the issue, and enable analysis to determine maintenance schedule

Geospatial Visualization of Asset Condition

to prevent costly downtime with timely alerts and dashboards, including key performance indicator (PKI) thresholds

Geospatial Visualization

of Maintenance Activities and Asset Performance

Visual Carbon Indexing

of 'brown assets' provides benchmarks for green investments

Major Vertical Markets Served:

- Utilities (Power, Gas, Water, Public Sector, Municipalities)
- Process Manufacturing
- Oil & Gas
- Telecommunication
- Transportation

Space-Time Asset Composite geospatially displays asset condition and asset performance correlated with maintenance history and schedule, inventory and parts accessibility and external factors such as severe weather and other extreme events and helps asset managers understand the impact of each factor on grid stability. Intuitive satellite and site-level views offer options for optimizing asset management including condition-based maintenance and system performance.

HALFWAY SOLUTIONS ARE FOR HALFWAY ASSET MANAGEMENT

You have data in lots of systems, including GIS, enterprise asset management (EAM), Network Management, load forecasting, workforce scheduling and dispatch, outage management, ERP, environmental, health and safety (EH&S), governance, risk and compliance (GRC), inventory, and asset investment planning (AIP) systems. You have SCADA systems sensors that report back assets' condition in real time.

So, what's the problem? In the fable of the blind men and the elephant, six blind men touch an elephant to learn what it is. Each touches a different part. Then, they compare notes and find themselves in total disagreement. The man who touched the trunk thinks an elephant is like a snake. The man who touched a leg thinks it's like a tree and so on. Without a complete picture, you too, are operating blind.

Currently, the data needed for asset management exists in several separate silos. You can't tell what one set of data means in the context of all the others. It's likely that none of the systems you have give you an accurate view of the impact of real-time factors such as weather and temperature – or let you take action to counter these in advance. There's no single system that gives you the whole picture – or lets you take action using full understanding. The systems you have lack the ability to give you real-time situational awareness. Real-time situational awareness involves having all the information you need presented intelligently, geospatially, intuitively, on one screen – satellite and plant images – from which you can take action.

Space-Time Insight helps utilities realize the vision of intelligent asset management by providing usable holistic asset intelligence for asset life cycle management. Information from operational and information technology investments, such as EAM, Network Management, Workforce Management, SCADA and GIS, integrated with real-time web feeds like weather and temperature conditions are shown as a geospatial visualization, to answer not only the "what?" questions, but also the "where, why, when and by whom?"

The geospatial-temporal analytics portal visually layers the data on satellite images, conducts real-time analytics of the integrated data, and links to remedial action scripts and workflow systems, from the same screen, customized by a user. The analytics and geospatial visualization provide a statistical and locational depiction of performance status and bring together all information sets for confident decision-making. Space-Time Asset Composite enables financial impact and opportunity cost analysis at it pertains to asset failure or downtime. Geospatial visualization and analytics enable Condition Based Maintenance (CBM), by visually detecting and identifying an issue and its severity based on established thresholds, and enable performance of risk assessment based on failure cost, opportunity cost, spare parts availability, crew availability, and other criteria.



Space-Time Asset Composite visualizes asset data from multiple systems in situational context and enables users to initiate action from the same screen.

Space-Time Asset Composite – Features & Benefits

- **Geospatially Visualizes Asset Condition** with timely alerts and dashboards including key performance indicator (KPI) thresholds for asset performance management
- **Condition-Based Maintenance**, reactive, proactive, and preventive maintenance is enabled with views of **warranty, instrumentation and procurement information on a single screen**
- **Provides Geospatial understanding of Maintenance Activities and Asset Performance**
- **Visual Carbon Indexing** providing benchmarking for green investments as well as providing renewal assets carbon footprint
- **Impact Analysis** regarding asset performance and downtime financial impact, including inventory, customer service, reliability, etc.
- **Delivers Instant Visual Ability to Assess Asset Condition, and Maintenance needs by integration with technical documentation, CAD drawings, warranty and other parts information**
- **Analyze and visualize the Financial Performance of Assets** under a variety of conditions including opportunity cost, emission cost and break-down cost.
- **Mitigated Liability Exposure** by enabling timely replacement and repairs of hazardous and critical assets
- **At-a-Glance Understanding of Variances** by supplier and required versus available skill sets
- **Intuitive Prioritization of Asset Management** activities by visualization of financial information
- **Improved Asset Management:** greater asset reliability, uptime, and ability to be eco-friendly while cutting costs