



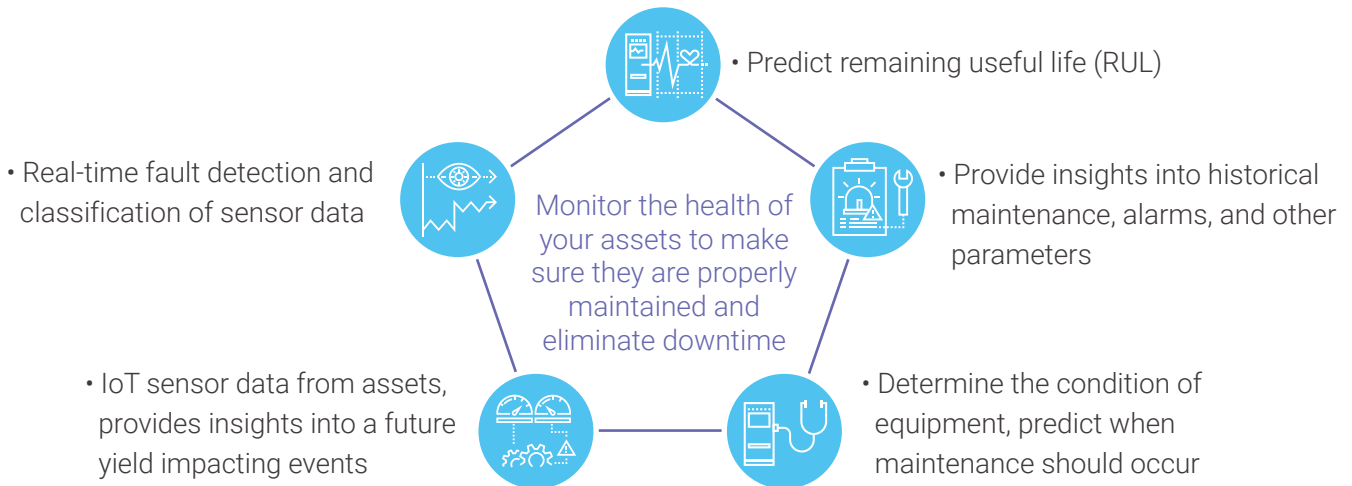
GrandView[®] APM

Equipment Health Monitoring and Predictive Maintenance

Predictive Analytics for Equipment Health Monitoring and Predictive Maintenance Eliminates Downtime, Extends Life of Equipment and Cuts Maintenance Costs

For manufacturers, downtime due to failing equipment significantly impacts the performance of assets, quality and factory productivity. Downtime is compounded by the high cost of replacing parts, long repair times, outdated maintenance, and siloed data plant wide. The A.I. powered GrandView[®] APM solution addresses these issues, providing health insights, real-time detection, classification and predictive maintenance and visibility to all levels of the factory, eliminating downtime, and keeping factories and equipment fully optimized.

A.I. Equipment Health Monitoring and Predictive Based Maintenance Enables Manufacturers to Cut Equipment Maintenance Costs by 30 percent



Powerful Visualization Offers Manufacturers a 360° View of the Factory Floor, 24/7

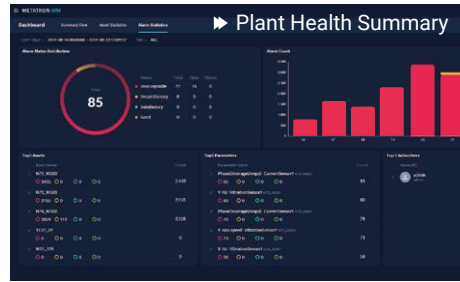
GrandView[®] APM offers powerful visualization and best-in-class reporting with dashboards for all levels of operation. Whether you are an operator, engineer or executive, GrandView[®] APM integrates with all other factory data management systems to provide the ultimate data visualization experience, including an asset health index which is updated real-time. To learn more visit www.GrandView-APM.com



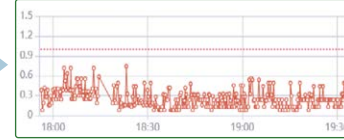
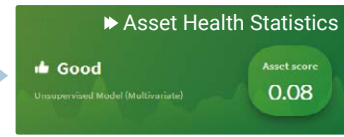
Markets Served

- Automotive Manufacturing
- Industrial Manufacturing
- Pharmaceutical Manufacturing
- Oil & Gas Manufacturing
- Semiconductor Manufacturing
- Flat Panel Display Manufacturing
- Electronics Assembly
- PCB/SMT Manufacturing

Actionable Insights for All Levels of Operation



Management Dashboards



Engineer/Maintenance Dashboards

Key Benefits

- Real-time monitoring maintains health and performance of all assets
- A.I. predictive based maintenance
- Full trace analysis of historical data
- Predictive analytics for remaining useful life (RUL) of equipment
- Fault classification prioritizes issues for quickest handling
- Time-series data base ensure high speed transfer and processing of unlimited data

Key Features

- Eliminate downtime with health monitoring and prediction
- Considerable reduction in maintenance costs
- RUL extends life of equipment
- Powerful visualization with dashboards for all levels of operation

AI-Driven Advanced Analytics and Prediction to Assure Constant System Uptime

Use Case

Streaming Vibration Data

Real-time Fault Detection

Streaming vibration data from a motor is monitored in real-time

BEARING FAILURE

The frequency spectrum is analyzed to determine failure type

RUL = 10 days

Motor 05

Failure 80%

Failure 60%

Current Status

Failure Projection

Remaining Useful Life of the motor is projected

Fault Detection

GrandView® APM monitors your assets in real time providing accurate detection of issues and early warning of potential failures using models driven by machine learning analytics.

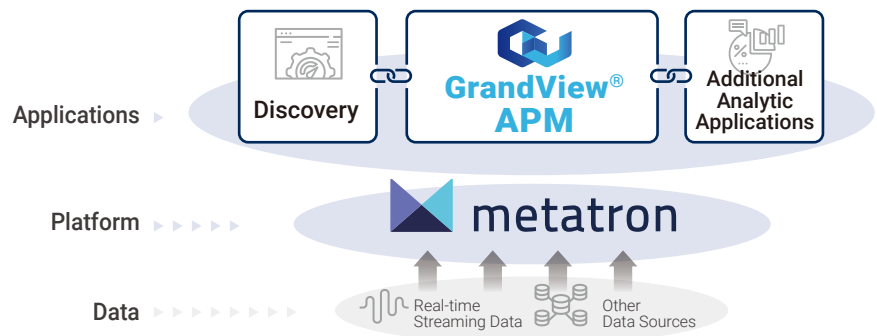
Fault Classification

Advanced analytic techniques identify root cause parameters that contribute to a specific failure; Or with domain assistance, provide the specific failure classification.

RUL Prediction

By continuously analyzing the assets' trending health status using AI, GrandView predicts the RUL of assets, optimizing maintenance, repair, and replacement schedules.

Powered by a World-class IoT Platform to Improve your Productivity and Profitability



- Global factory asset connectivity powered by metatron® IoT technology
- Seamless integration with advanced BI analytic capabilities (metatron discovery®) and other analytic solutions

BISTel

For more information or to request a demo, please contact your local BISTel sales representative below:

- US** InquiryUS@bistel.com
+1 408 855 8212
- CN** InquiryCN@bistel.com
+86 755 8656 5154
- JP** InquiryJP@bistel.com
+81 59 327 7070
- KR** InquiryKR@bistel.com
+82 2 597 0911
- SG** InquirySG@bistel.com
+65 8613 4968

For a complete list of our global contacts, visit bistel.com/contact

metatron is a brand inside SK Telecom, which provides overall services for enterprises to use the data they have. SKT has several applications under the brand of metatron. 'metatron discovery' is a BI tool for big data processing and visualization, and it has two Ex-packs that provide extra functions. 'GrandView' is an easy to use monitoring and analytics tool designed for manufacturing industry, of which the main function is predictive maintenance. 'Machine Vision' offers visual inspection, for components throughout the manufacturing process.