machinemetrics

MachineMetrics Health

TRANSFORM YOUR APPROACH TO MACHINE MAINTENANCE.

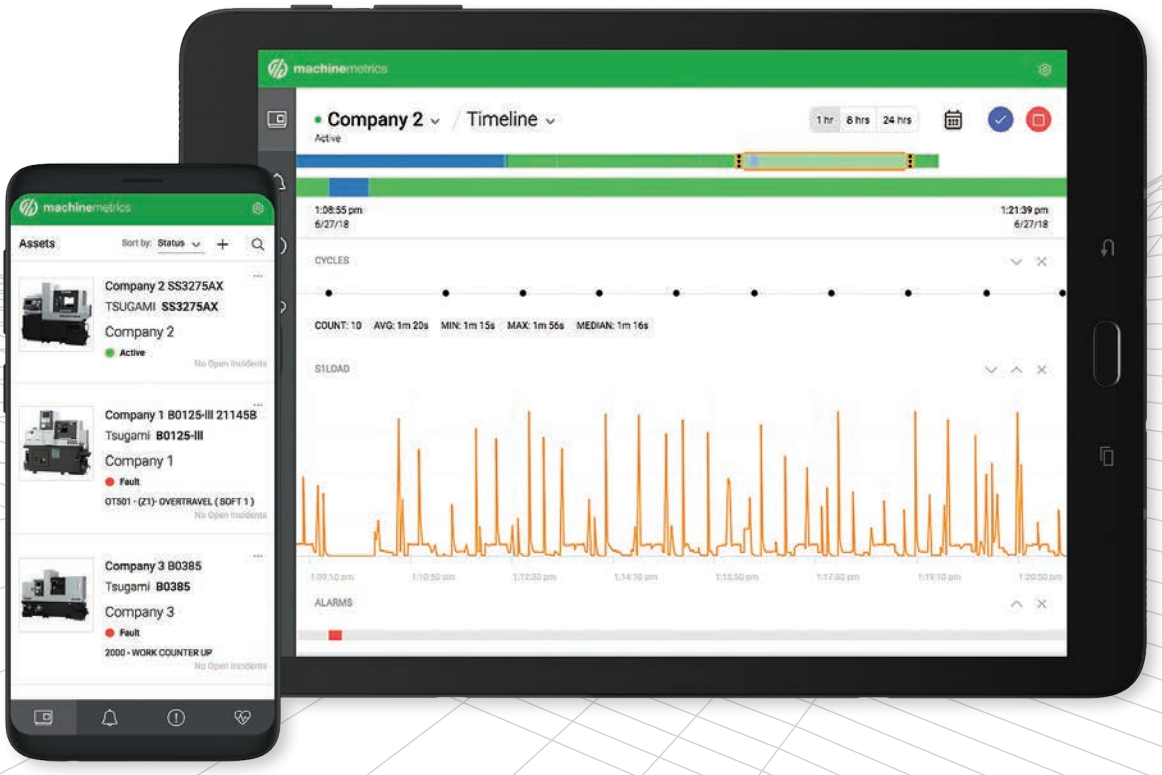
INDUSTRIAL IoT FOR MAINTENANCE MANAGERS AND PROCESS ENGINEERS

What if you could stop a machine before a catastrophic failure?

THE INDUSTRY FIRST AI-DRIVEN MACHINE MONITORING SOLUTION

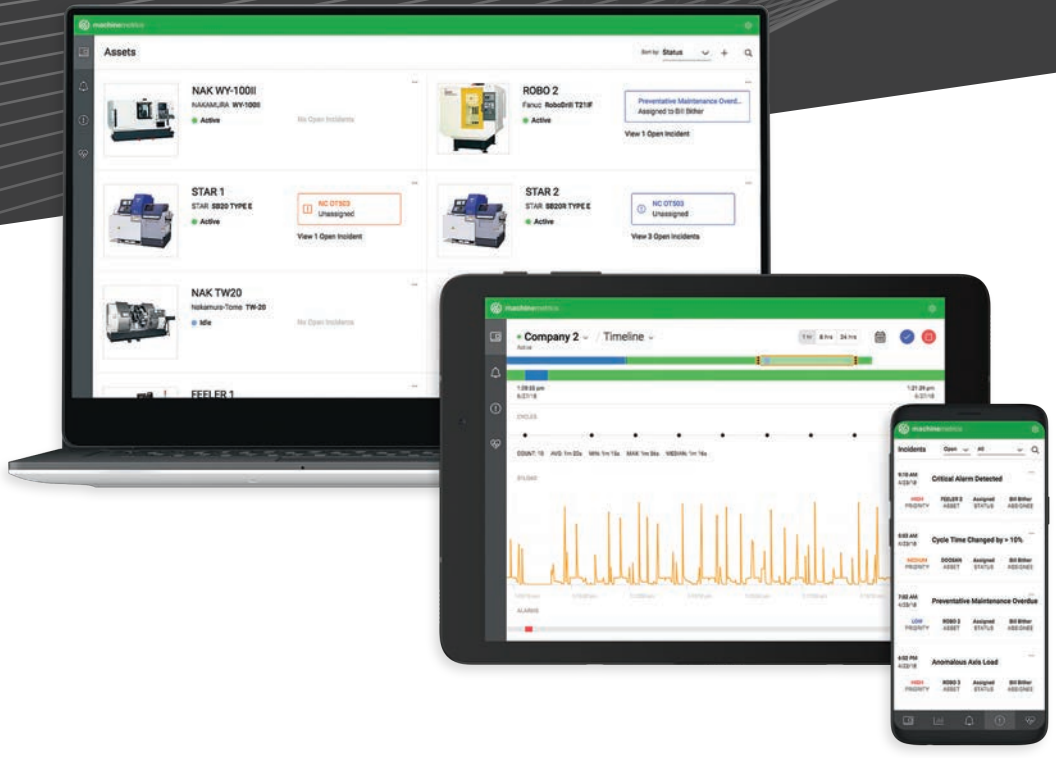
Predict problems—before they cause downtime.

MachineMetrics Health continuously monitors equipment health in real-time to detect problems before causing downtime with patent-pending AI technology. Notify machine operators to change a tool before it breaks. Notify your maintenance manager when an anomaly is detected that could lead to a breakdown. This ability can prevent thousands of dollars of equipment replacement costs and days of downtime.


machinemetrics
Company 2
Timeline
Active
1 hr
8 hrs
24 hrs
1:08:55 pm
6/27/18
1:21:39 pm
6/27/18
CYCLES
COUNT: 10
AVG: 1m 20s
MIN: 1m 15s
MAX: 1m 56s
MEDIAN: 1m 16s
S1LOAD
ALARMS
machinemetrics
Assets
Sort by: Status
Company 2 SS3275AX
TSUGAMI SS3275AX
Company 2
Active
No Open Incidents
Company 1 B0125-III 21145B
Tsugami B0125-III
Company 1
Fault
OT501 - (Z1)- OVERTRAVEL (SOFT 1)
No Open Incidents
Company 3 B0385
Tsugami B0385
Company 3
Fault
2000 - WORK COUNTER UP
No Open Incidents

MachineMetrics Health

FOR MAINTENANCE MANAGERS AND PROCESS ENGINEERS



MachineMetrics Health is a predictive analytics application on the MachineMetrics Industrial IoT platform that allows maintenance teams to monitor and manage equipment health in real-time. Improve CNC Machine Tool health with real-time diagnostics, condition monitoring, alerts, and preventative and predictive maintenance.

INDUSTRIAL IoT FOR MAINTENANCE TEAMS

Manage your machine assets and view real-time equipment status and conditions

Diagnose problems with deep alarm analytics and AI-driven predictive notifications

Manage preventative maintenance tasks based on usage or machine conditions

Track utilization of equipment over time to understand current and potential capacity

Predict equipment failures and prescribe solutions to prevent costly downtimes

THE MACHINEMETRICS ADVANTAGE

Simple machine connectivity

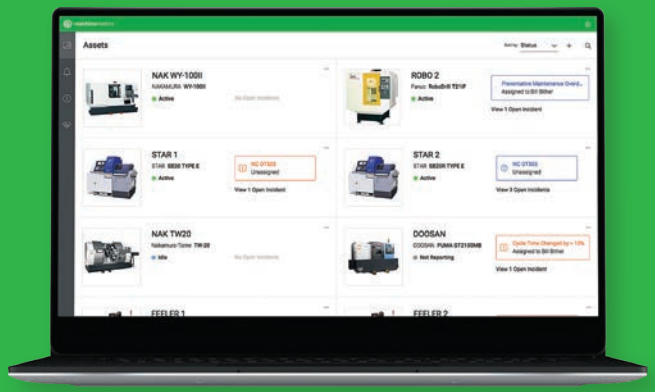
Connect to any modern CNC Machine Tool by connecting the MachineMetrics Edge to the ethernet port of the control. Software on the edge processes data from the machine in real-time and streams the data securely to the MachineMetrics cloud.

Other machine types and older equipment can be connected directly to the cloud with the Digital and Analog IO module. Configure remotely using a simple scripting language that anyone can learn. No need to be a controls engineer to build advanced connection logic.

Data is securely streamed to the MachineMetrics cloud and automatically mapped to the MTConnect open communications protocol.

micro SD
LED 1
LED 2

IIoT PLATFORM CAPABILITIES

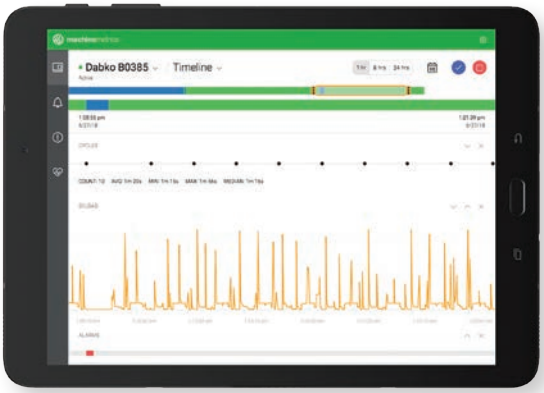


ASSET MANAGEMENT

View and manage the status and health of your machine assets. Easily add new assets with the MachineMetrics wifi & cellular edge connected to sensors or the machine's PLC.

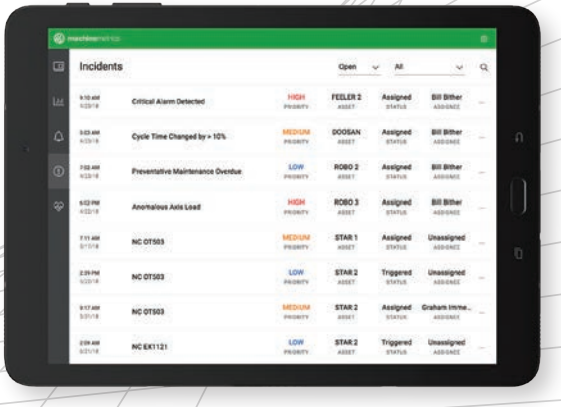
UTILIZATION REPORTING

View asset utilization by hour, shift, day, week or month to view trends and uncover opportunities for improvements.



REAL-TIME MACHINE CONDITIONS

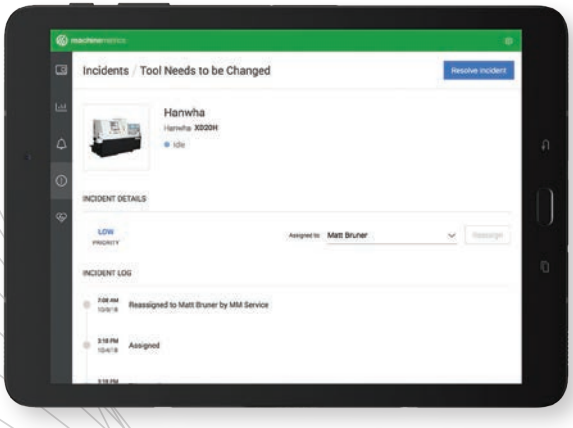
View and export real-time machine data and alarms as time-series data and charts to help diagnose and resolve problems.



ALERTS AND NOTIFICATIONS

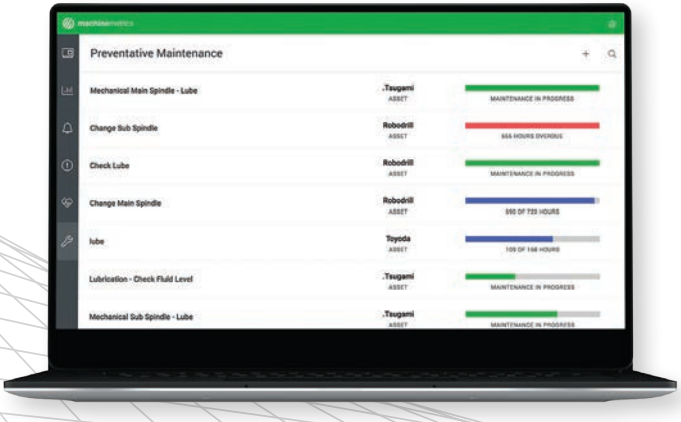
Alert the right person at the right time when action needs to be taken. Track incidents through a workflow with reassignment, resolution, and full audit tracking.

PREVENTATIVE & PREDICTIVE MAINTENANCE



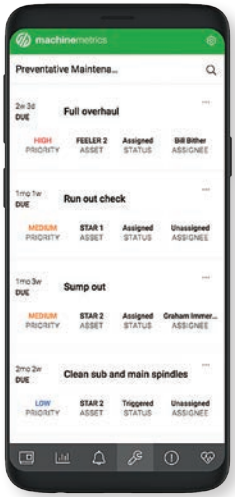
TOOL & MACHINE FAILURE PREDICTION

Identify anomalous behavior that could result in machine or tool failures up to an hour before it occurs with MachineMetrics patent pending anomaly detection AI. An alert is sent or incident created so that your machine operator can take preventative action.



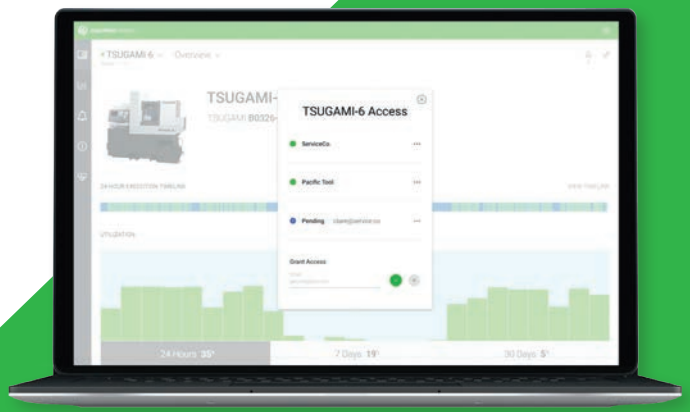
PREVENTATIVE MAINTENANCE

Create and manage preventative maintenance schedules that are tied to calendar time, usage time, or initiated from machine conditions. Assign maintenance tasks through a workflow.



PREDICTIVE MAINTENANCE

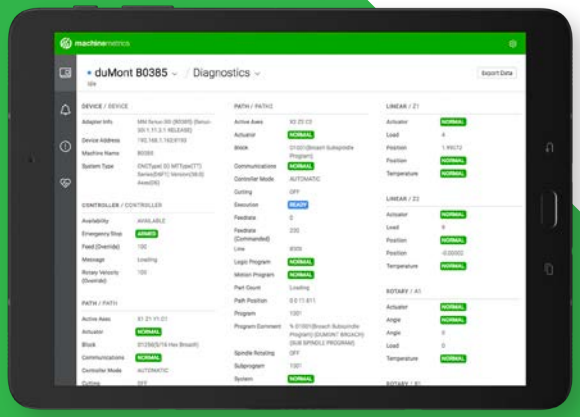
Initiate a maintenance request when a machine condition has exceeded a limit or when our AI predicts a likely failure.



SHARE DATA WITH SERVICE PROVIDER

Instantly share machine data with your service provider so they can give you remote service and help bring your machines online quicker.

ADVANCED SERVICE CAPABILITIES

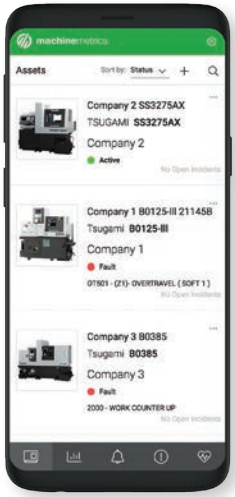


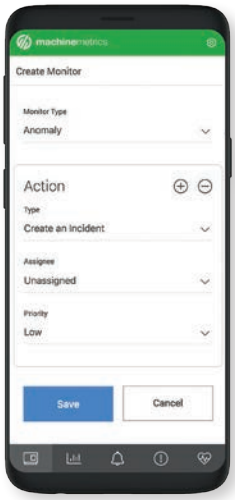
CUSTOMER ACCESS

Customers can choose which data items are viewable by your service teams offering comfort and security. This historical data can be accessed and exported at any time. Real-time data enables your service staff to provide remote support, reducing warranty costs.

DISTRIBUTOR ACCESS

Share data from equipment assets with your distributors as well as your customers, all managed in one central location. Distributors receive the same improved service capabilities.



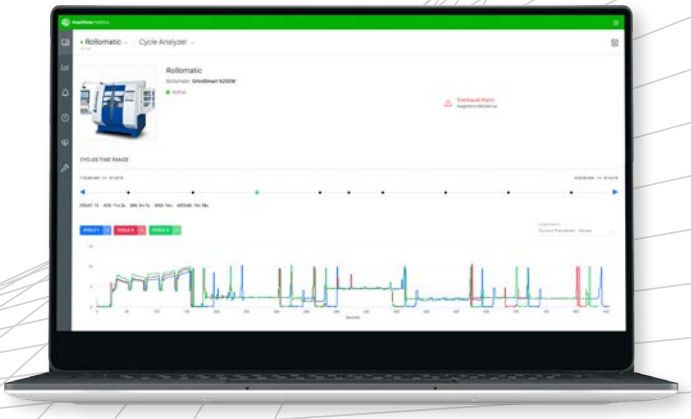


ANOMALY DETECTION

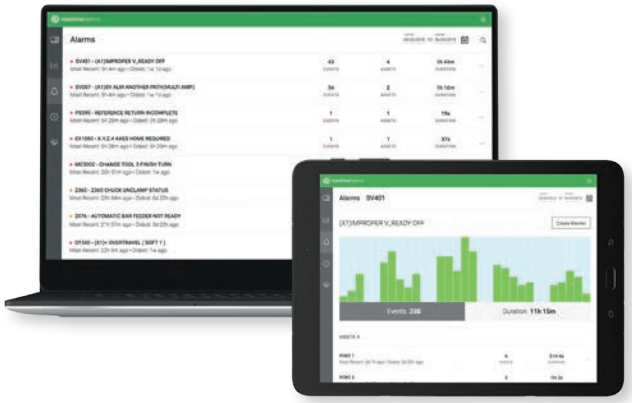
A rules engine is provided for deploying monitors based on machine condition data and patent pending advanced machine learning algorithms can be deployed for detecting anomalous behavior.

CYCLE ANALYZER

Monitor spindle load or any other analog metric over the course of a part cycle. Multiple cycles from any point in time can be overlayed over each other to analyze discrepancies or changes over time.



ADVANCED ANALYTICS

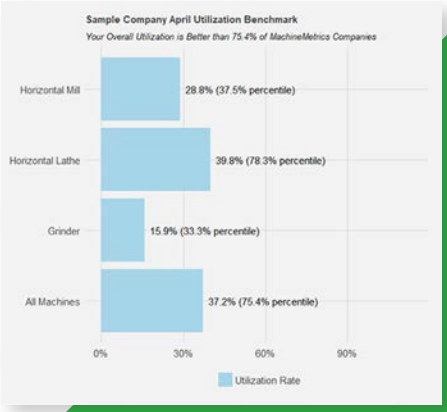


ALARM ANALYTICS

View full history of alarms for each machine, and a summary of alarms across your entire shop floor. Find out what alarms are causing the most amount of downtime, and create monitors that will alert maintenance when specific alarms occur.

BENCHMARKING

Understand how your machine performance / utilization compares to the rest of the industry, segmented by industry and machine type. If your factory falls in the top 20th percentile, use this information to prove to customers that your factory is world class.



Predictive maintenance benefits

PREVENT

Prevent unplanned downtime, increase utilization

PREDICT

Detect and diagnose asset performance issues to help prevent unplanned downtime and increase asset

Understand equipment utilization rates and overall install base health

Capture and scale technical service expertise of workforce

Gain insight into asset and maintenance model through visibility of pervasive issues

Improve equipment uptime and field service productivity

“MachineMetrics enabled CPM to increase capacity by $1.5 million in 2016 with no additional machines!”

— **Gary Bruner**,President of Carolina Precision Manufacturing