Driving Machine Health Adoption Through an Empowering User Experience

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AUGURY

Opening the Door to Industry 4.0 with Machine Health

When it comes to machine health and Industry 4.0, the power of AI and machine learning is exciting and limitless. Implementing a machine health program with a focus on prescriptive diagnostics allows you not only to achieve health status visibility across all your connected equipment, but to also ensure failure prevention 24/7/365. Successful program implementation further opens up the door to expanded capabilities including:

- Machine level maintenance planning; and strategy
- Site-wide PdM
- Portfolio level maintenance optimization
- Enterprise-wide supply chain and operations transformation…Industry 4.0

Still, maintenance and operations managers scratch their heads on how to ensure an effective program with their teams at their facilities. Internal change management can be daunting.

Promoting Adoption Out-of-the-Box

Adoption is key. Users engage with tools they trust that empower them to achieve efficiency and predictability in their jobs. When evaluating machine health solutions, it is important to understand how quickly and effectively the platform enables your team with the right information, presented in a recognizable way, at the right time.

Augury provides full stack continuous machine health monitoring, patented AI-based prescriptive diagnostics, and complete onboarding and success services. Our highly successful approach to partnering with customers to implement effective enterprise-wide machine health programs is based on four critical pillars. The fourth being our carefully designed user experience that puts the power of these tools directly into the hands of your facility maintenance teams so they can intuitively and successfully manage their predictive maintenance programs, out-of-the-box.

In this paper we will outline the must-haves in a machine health user experience which any solution provider should be prepared to deliver to promote the cultural shift to condition-based machine health and predictive maintenance.

Augury End-to-End Machine Health

Wireless sensors continuously collect vibration, temperature and magnetic machine data

AI algorithms scale precise prescriptive fault diagnostics across real-time incoming machine data.

AI-flagged faults are verified and supported by Augury reliability engineers.

Acceptable condition verified automatically

Recommended corrective action performed by the technician

In-app collaboration enables internal fault review and repair activity scheduling for minimum disruption.

Dashboard and alerts not only provide actionable guidance on diagnosed faults including issue, severity, and recommended remediation. They also help teams prioritize their maintenance activity based on the facility's most urgent needs.

Augury's puts the power of machine health insights directly in the hands of your users through a well-designed interface and process flow.

What Machine Health Adoption Success Looks Like

Change management plays a huge role in promoting successful condition-based machine health and predictive maintenance. Adoption is the clear indicator of program integration into overall work flows and is a predictor of program value. A well-designed platform influences adoption success along the following:

Engage Early

<7 days
Time to insight post-deployment

<30 days
Average Time to Value

"Out-of-the-box" empowerment is imperative. A solution that shows value early and with minimal effort will generate immediate buy-in and excitement.

Augury's platform is streamlined to enable users with detailed diagnostic and remediation insight, allowing them to realize value rapidly. Time-to-value (averted machine failure and downtime) has been as quick as two days following deployment, with an average across our customer base of one month.

Engage Often

85%
Addressed alert rate

<19 days
Time to Address

While quick wins are exciting, it is integration of the platform into everyday workflows which produces the machine health foundation supporting ongoing ROI and future Industry 4.0 objectives. How often and how effectively your team engages with the platform and incorporates it into their daily work routine are a direct result of the relevancy of the insight it provides, and how intuitive it is to use.

By keeping a keen eye on engagement throughout our customer portfolio and collaborating with them on platform design, Augury maintains an addressed machine alert rate of over 85%. This means that users interacting with our platform are actively managing 85% of the diagnostic and remediation insights our platform delivers. To add context, SaaS platforms across industries benchmark at roughly 10% engagement.

Metrics

+3x
Average ROI (Payback within months)

90%
Recorded engagement rates among reliability and maintenance users

The ability to track and manage adoption helps identify training needs and best practices to share across sites. Augury's combination of dashboard reporting and success management services provides clear visibility into facility adoption and engagement levels which helps our customers manage achieve, and exceed their targeted value objectives. This combination of immediate engagement and ongoing metric tracking leads to an average 3x ROI within months.
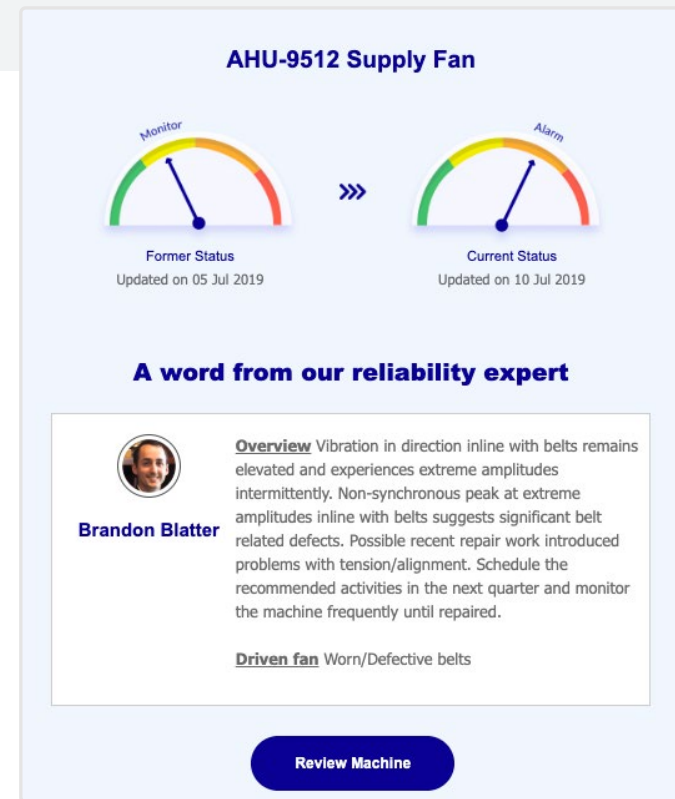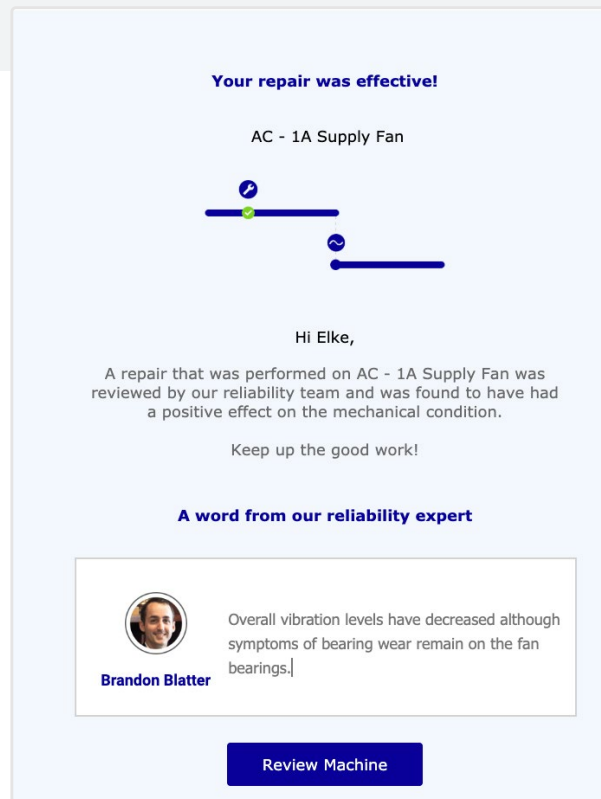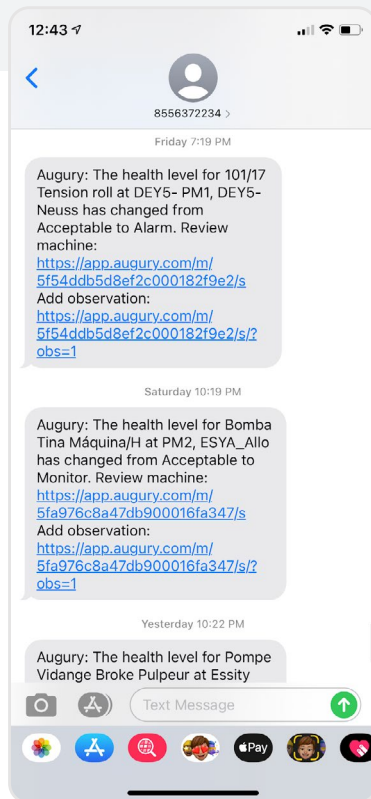
User Experience:
What You Should Expect

What should you look for when evaluating platforms to promote the early adoption and ongoing engagement required for program success? Concentrate on the main capabilities and key workflow elements that empower your team and can 'make or break' adoption metrics.

- Alerting

- Visibility into equipment status, enabling teams to prioritize their maintenance activity

- Prescriptive diagnostics that help inform what the actual issues are, why they are happening, and how to fix them

- Access to full machine history to figure out the root causes of issues, solve them, and take action to prevent them from happening again

- Easy and accessible collaboration capability

- Information and knowledge capture for future training and skill development

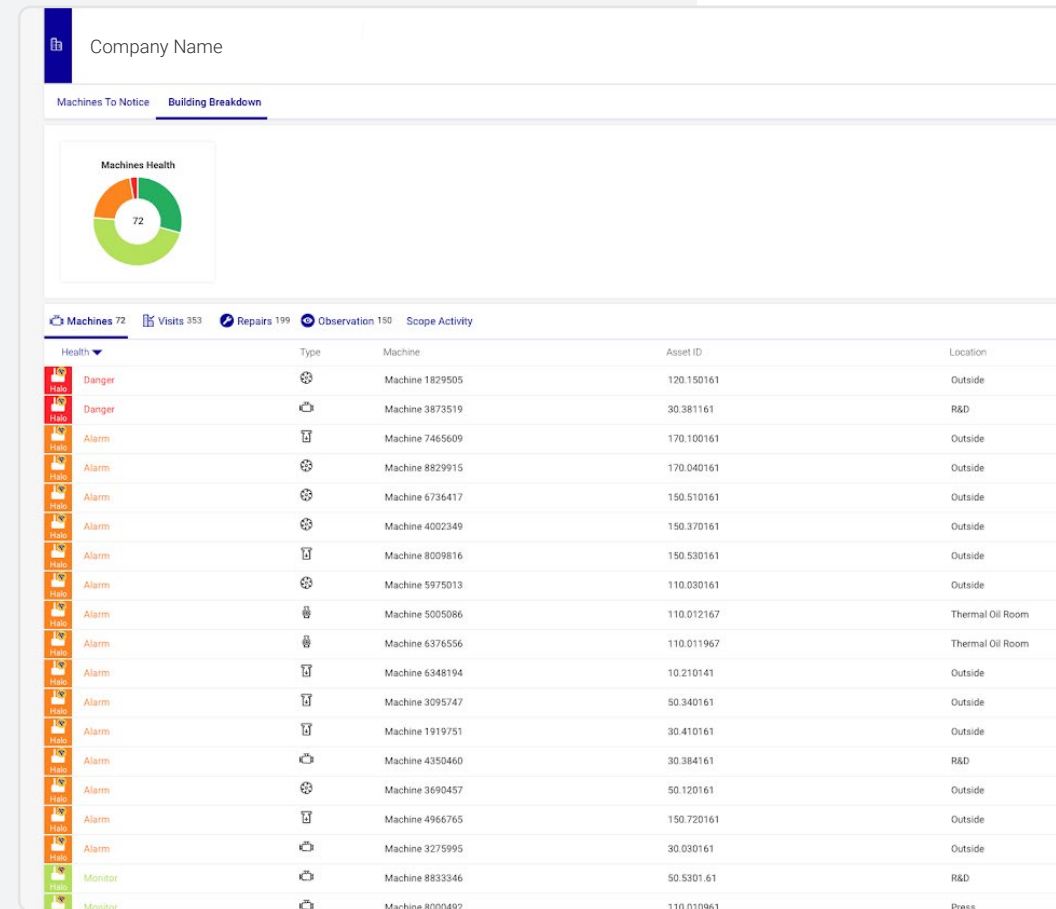- Share, implement, and standardize best practices

Machine Health Alerts:
Empowered to Prevent Failures

First and foremost, a platform needs to be designed to empower your users to prevent machine failures and eliminate resulting downtime. Augury's AI-driven prescriptive diagnostics deliver real-time machine health assessments with industry-leading 99.9% fault detection accuracy. Our platform enables users to then customize how they are alerted of developing issues on their machines to ensure they receive the right information to avoid machine failures.

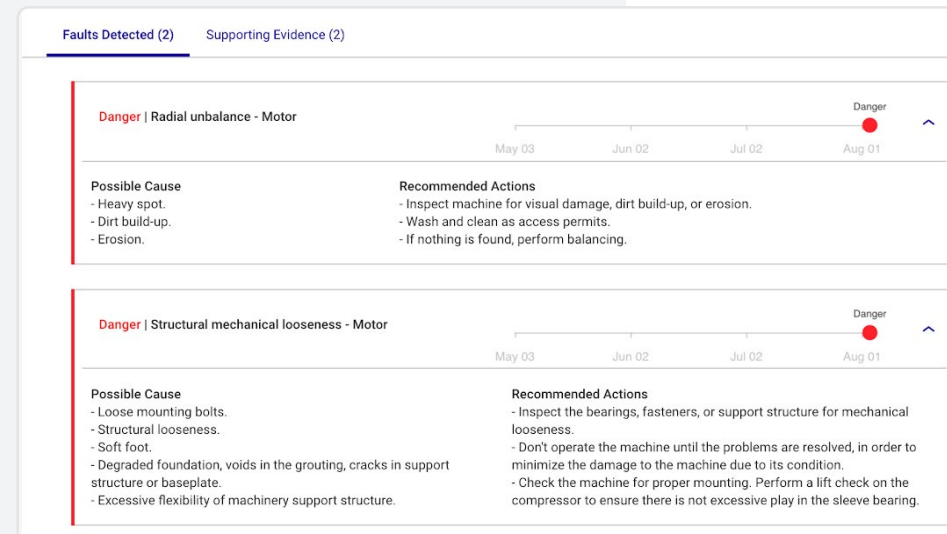# Machine Health Status Visibility: Empowered to Plan

Planning maintenance schedules without real-time insight into the condition of your machines is like throwing darts with a blindfold on or driving a car without headlights. Augury's site and company dashboards empower your team with full health status visibility across all connected machines at all times, putting them firmly in charge of maintenance requirements. With a holistic snapshot of health at the site, line, and machine levels, your team is empowered to avert emergency calls and unplanned downtime associated with equipment failure. In addition, they are enabled with the necessary insight required to promote greater control and predictability in areas such as labor and spare parts cost, and the planning/budgeting associated with each.
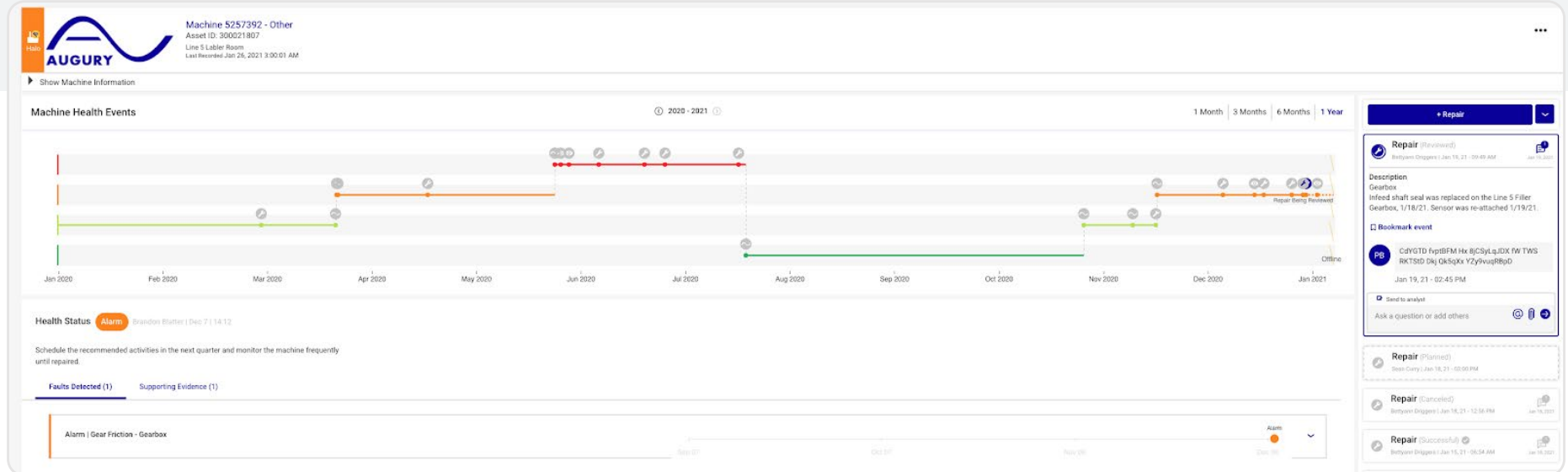
Prescriptive Diagnostics: Empowered to Act

Issues on critical machinery can develop quickly and be difficult to detect. When the information to diagnose and repair them is too little or too late, maintenance teams may have difficulty averting a failure that could result in shut down of production lines or even entire facilities. Without clear and prescriptive diagnostics, teams are likely to miscalculate their maintenance activities and waste time and money.

Machine data analyzed by Augury's industry-leading advanced AI and machine learning algorithms are provided to your team as clear prescriptive diagnostics including fault diagnosis and recommended remediation actions. Site personnel are provided with the right information to understand what needs to be done so they can act quickly. The platform further ties insight back to the rich datasets we are capturing from your machines, clearly highlighting where in the data the findings originated.
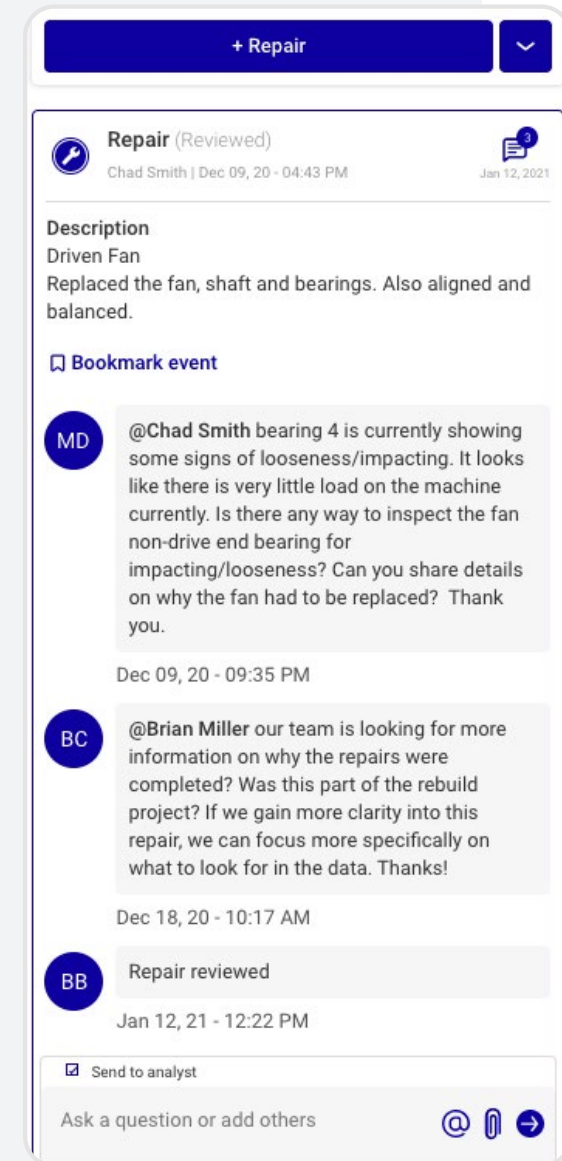
Machine Health Lifecycle: Empowered to Improve

Optimizing machine effectiveness goes beyond just keeping a machine running today. It means empowering your team to increase reliability and performance for the long-term. Augury's platform provides a clear visualization of the entire lifecycle of a machine. Your team is empowered with historical fault, remediation, and validation history. Armed with data-driven health trends and patterns over time, they have the necessary insight to address underlying root cause issues versus repeating symptomatic repairs. Gone are the days of tribal knowledge and lunch table anecdotes of "this machine" or "that machine". Valuable machine knowledge is transparent and visible.

In-App Collaboration: Empowered to Work Together

Establishing a successful machine health program with wide-spread adoption means making it social and collaborative. And with today's reduced staffing levels and remote work challenges, never before has the need for tools to enable information sharing and assistance been more imperative to allow your teams successfully keep your machines running.

Augury aggressively promotes collaboration with our in-app Threads tool. Threads provides your users with the ability to tag and communicate directly on the Augury platform with team members across shifts in the same facility, subject matter experts at different facilities within your company portfolio, and to even tap into our Augury success and reliability teams to better understand the specifics of a situation. Knowledge silos become a thing of the past, and knowledge sharing is adopted enabling better decision making.

Digitized Knowledge: Empowered to Elevate

Enhancing overall team performance, celebrating wins and success, and shared visibility into the effectiveness of program adoption are all necessary to the successful change management process associated with a machine health implementation. Platforms should have the ability to support use of digitized machine maintenance insight to elevate the important work of your maintenance and operations teams.

Augury's platform has been set up to create a maintenance and repair knowledge base shareable across shifts, sites, even enterprise-wide. By bookmarking diagnostic and repair insight, valuable knowledge and experience across machine types, conditions, events, and repairs is captured and can be used to create SOPs and maintenance playbooks.

Equally important, bookmarking gives users the ability to easily track and share successes within their team and elsewhere within the organization. Successful engagement with Augury's platform means catching machine issues early and taking action. Providing an easy method within the platform to capture and visualize these successes elevates the valuable work being done by maintenance teams in keeping the machines running that keep facilities operational and production schedules on time.

Search for Machines, bulidungs users...

Bookmarks

Explore successful repairs, highlighted recommendations by Augury, and other machine events that were bookmarked by you and your team.
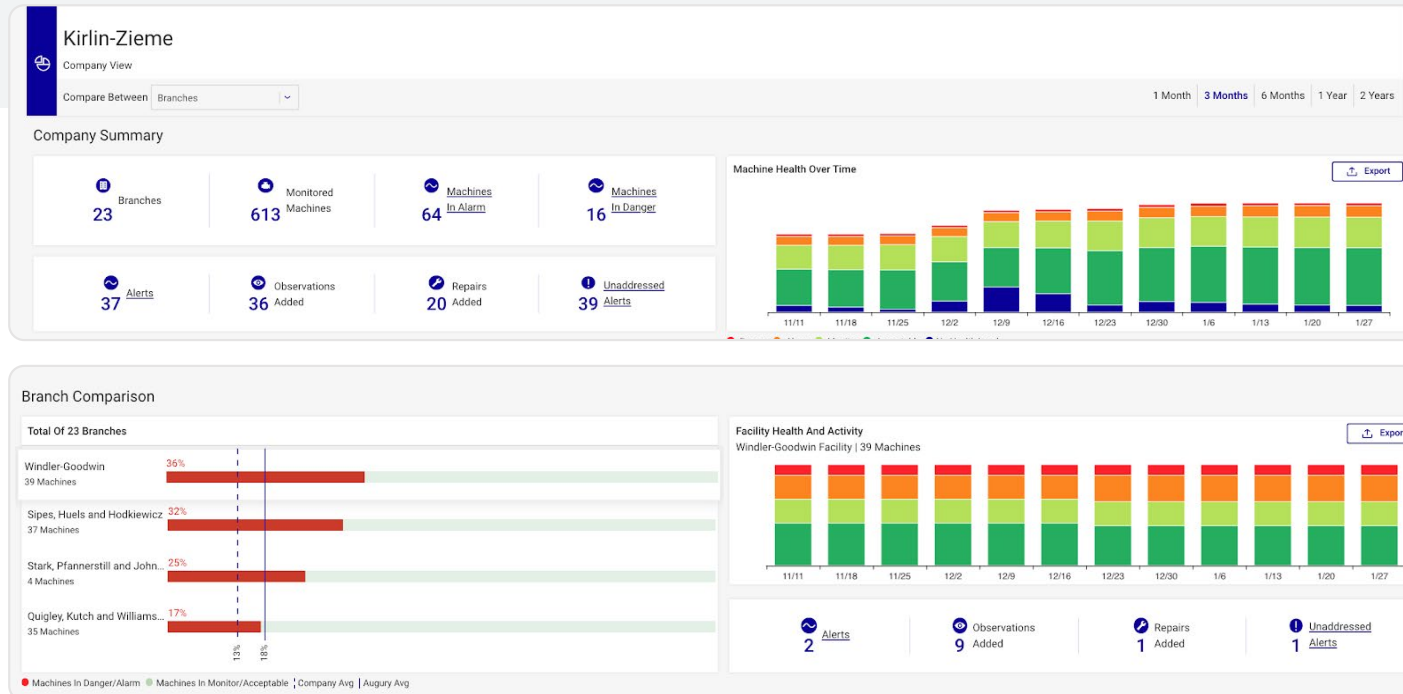
Machine	Facility	Type	Date	Bookmarked by	Bookmark Note
Secondary Pump #3	Greensboro	Success Story	Oct 12, 2020	John O'Connor	Successful rep... We verified the...
Tank #22 Pump	Sioux Falls	Learning	Oct 23, 2020	Tom DiCenzo	Learnings to avo... Alarm machine... and Augury pot...
Cooling Fan #12	Sioux Falls	Condition-based Action Rule	Nov 03, 2020	Tom DiCenzo	Analyzing mach... implemented c... threshold set o...
Utility Pump #10	Greensboro	Learning	Nov 15, 2020	John O'Connor	Training needs... in motors.
Packer - Line #9	Sioux Falls	Success Story	Nov 19, 2020	Tom DiCenzo	Successful repa... downtime and c...
Wet Mixer Line #22	Lexington	Learning	Dec 02, 2020	Ryan Riedel	Underl... rough... We observ... bearings a...
Labeler #3	Greensboro	Success Story	Dec 12, 2020	Deb Harding	Saved 2 days o... holiday produc...

Scaling Machine Health Adoption Enterprise-wide

Effectively evaluating machine health solutions means becoming educated on differentiation in sensing and AI-based diagnostics technology, as well as the support and customer success you can count on as you manage maintenance cultural shifts across your organization. We have learned, it must include careful consideration of the user experience promised. Specifically, considering how the platform will empower your team to achieve success across your site.

Augury's platform puts the right tools intuitively into your users' hands, promoting the level of adoption that makes elimination of unplanned downtime and machine level maintenance planning, and strategy the new reality.

This type of change management is not isolated. It is well-proven to scale seamlessly across your organization, opening the door to new levels of machine health insights and operational optimization. With successful machine health as a foundation, companies can truly begin to transform through portfolio level insights around risk, facility performance benchmarking and improvement, best practices, and macro trends in fault statistics across critical asset classes.

Augury is building a world where people can always rely on the machines that matter. Augury supports its partners by enabling Digital Transformation through superior insights into the health and performance of the machines they use to make products, deliver services and improve lives.

For more information on Augury Machine Health as a Service, visit **augury.com**.

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