



Mobile Collaboration for Better Asset Management

How Manufacturers Achieve Business Results with AMS Optics Collaboration Software

AMS


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Keeping a Close Eye on Critical Assets

Maintaining reliability is difficult when more than one problem occurs at once. On a particularly difficult day in a North American chemical plant, the reliability manager noticed not only that some vibration routes were past due, but also that a critical valve had a travel deviation.

Resolution of both issues was essential to maintaining key reliability indices, but locating the key players and communicating necessary information to get the problems resolved would have been frustrating in a traditional reliability setting. Fortunately, the plant had invested in the AMS Optics collaboration software, removing the need to track people down—instead using automatic delivery of essential information in relevant time to relevant personnel.

The Right Data in the Right Hands

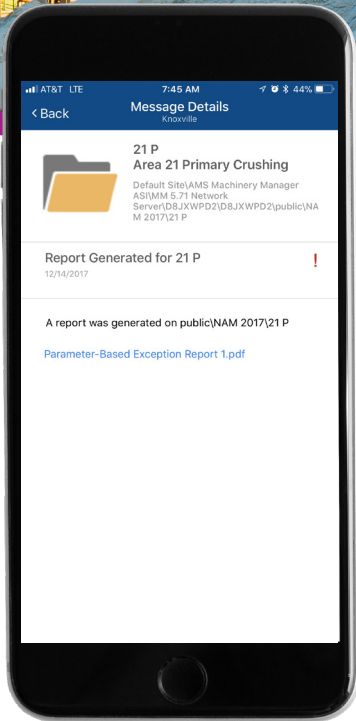
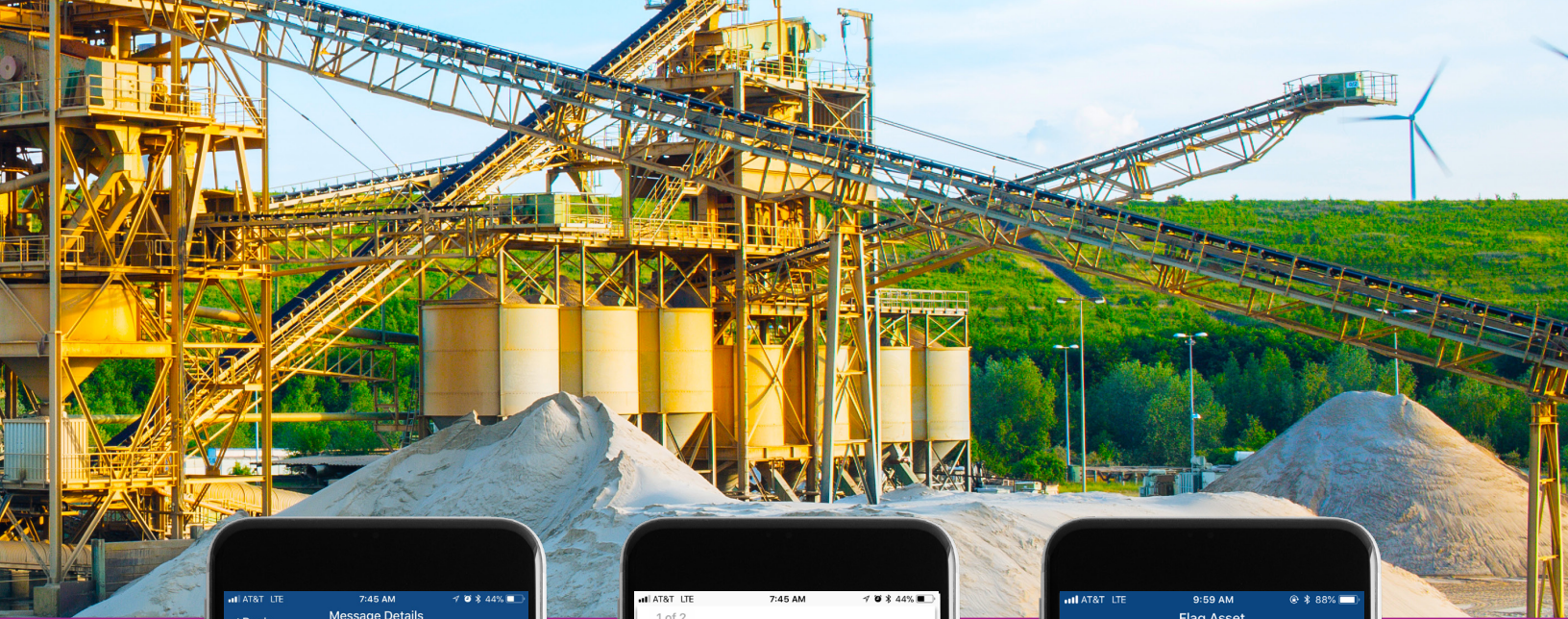
When the reliability manager looked for answers regarding the overdue vibration routes, AMS Optics delivered fast results. The manager could see AMS Machinery Manager reports—directly in the AMS Optics Asset Viewer utility—showing that the route was missed because the asset was not running during scheduled collection. The manager immediately flagged the (now running) asset with a note requesting a technician to collect data using a portable analyzer. The technician was notified

via a mobile alert and performed the route, and the information was uploaded automatically via Wi-Fi. Both the vibration analyst and the reliability manager received immediate notifications on their mobile devices that the route data had been uploaded, allowing them to follow-up.

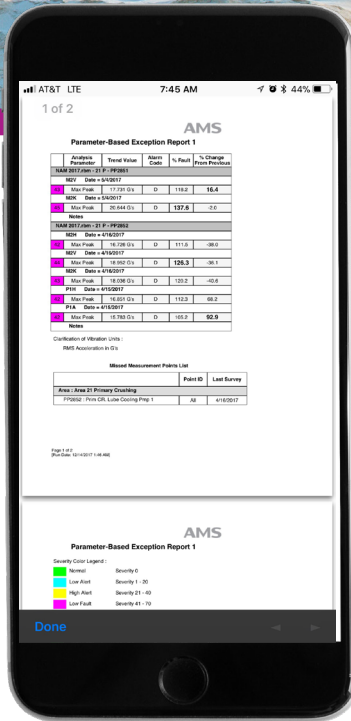
Simultaneously, an instrumentation technician began work on the problem valve—without waiting for a call from the reliability manager. The technician had already been notified of the status of the loop via an alert from Asset Viewer in the AMS Optics Mobile Application on the technician's smart phone. Clicking through the alert, the technician investigated the problem using AMS Device Manager to get more detailed diagnostic information. With critical diagnostic data immediately available, the technician confidently identified the fault, flagged the valve in AMS Optics (which automatically notified the reliability manager), and generated an event in the CMMS system for scheduled maintenance.

Shortening the Communication Chain

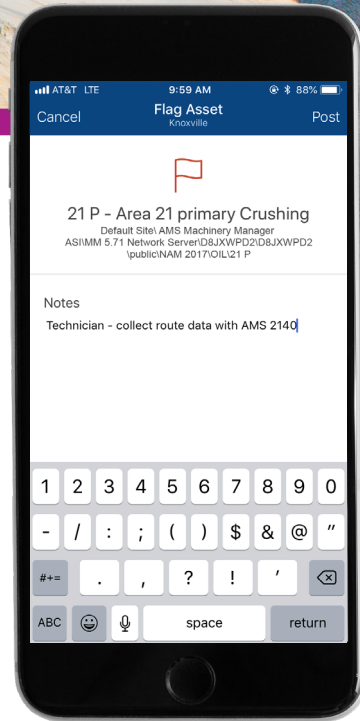
AMS Optics not only delivered fast communication between reliability management and technicians on the floor, it also saved critical steps by allowing experienced technicians to



On-the-go report generation allows the reliability manager to check asset status anytime and anywhere.



Designed-for-mobile interfaces make it easy and intuitive for the manager to identify missed measurement points.



Asset flags and mobile push notifications let the reliability manager remind on-duty technicians that they need to collect missed data.

take initiative and solve problems as they arise, speeding resolution and freeing the reliability manager to focus on more important tasks.

To keep a plant running at peak performance, reliability teams cannot waste time searching the plant for people with the right access to critical information. Having fast, collaborative access

to asset health information, coupled with tools for immediately and automatically delegating workflows enables empowered personnel who can make the right choices when they matter most.

AMS Optics delivers fast, collaborative access to asset health information across the plant or across the globe.



Stop Performance from Impacting Production

When a refinery's continuous control room operator identified an underperforming pump, it was clear that the pump was a bad actor given available process data. Immediate repair was essential, as the pump's performance significantly impacted plant production.

With traditional reliability practices, it could have taken days or even weeks for essential information to be passed back and forth as key players traded notes and performed their roles. However, this refinery harnessed the collaborative tools of AMS Optics, immediately putting essential data into the hands of the right people at the right time.

Facilitating Faster Response

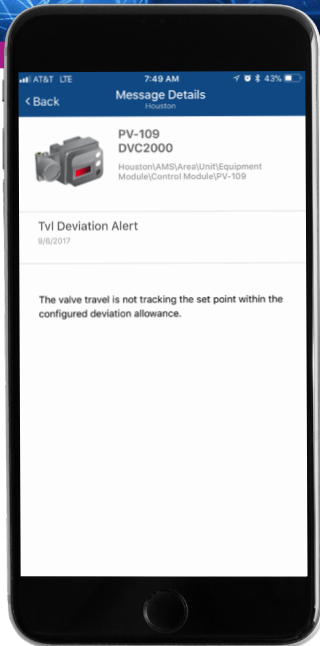
The operator notified the plant's process engineer who used AMS Optics to immediately flag the pump, and include all relevant information such as screenshots, documentation, and historical data. The operator notified the reliability team simply by tagging the reliability engineer while flagging the asset, avoiding the need to scour the plant tracking the engineer down.

The reliability engineer—immediately notified on a mobile phone via an Asset Viewer notification in the mobile application—used AMS Optics to inspect the health of the pump. Seeing that the pump was displayed in the unhealthy asset list due to a high PeakVue reading, the engineer connected directly to AMS Machinery Manager through the AMS Optics interface to collect additional process, vibration, and oil data. With all the necessary data available, the engineer could quickly and easily diagnose the problem.

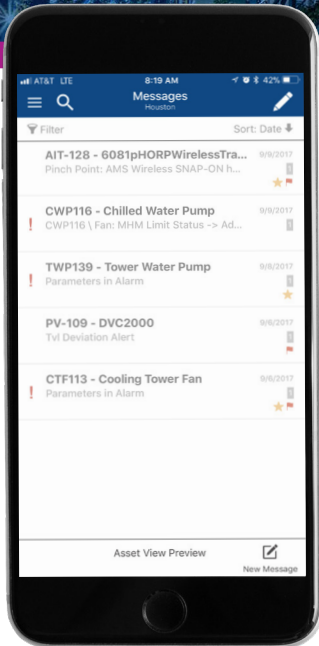
The engineer generated a work order in the CMMS using AMS Optics, which immediately notified a maintenance technician via Asset Viewer on a mobile device. Upon completion of maintenance, the technician closed the work order, which automatically unflagged the pump, restored its health status, and notified key personnel including the engineer and operator.

Reduce the Impact of Problems

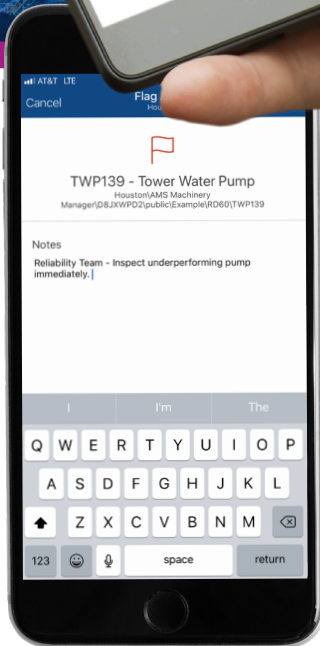
When problems impact production, the time that ticks away can become very expensive, very quickly. Having access to data helps reduce



Instant notification of faults allows operators to know immediately when assets are under-performing.



Key personnel—immediately notified via mobile alerts—can quickly and easily diagnose asset failures.



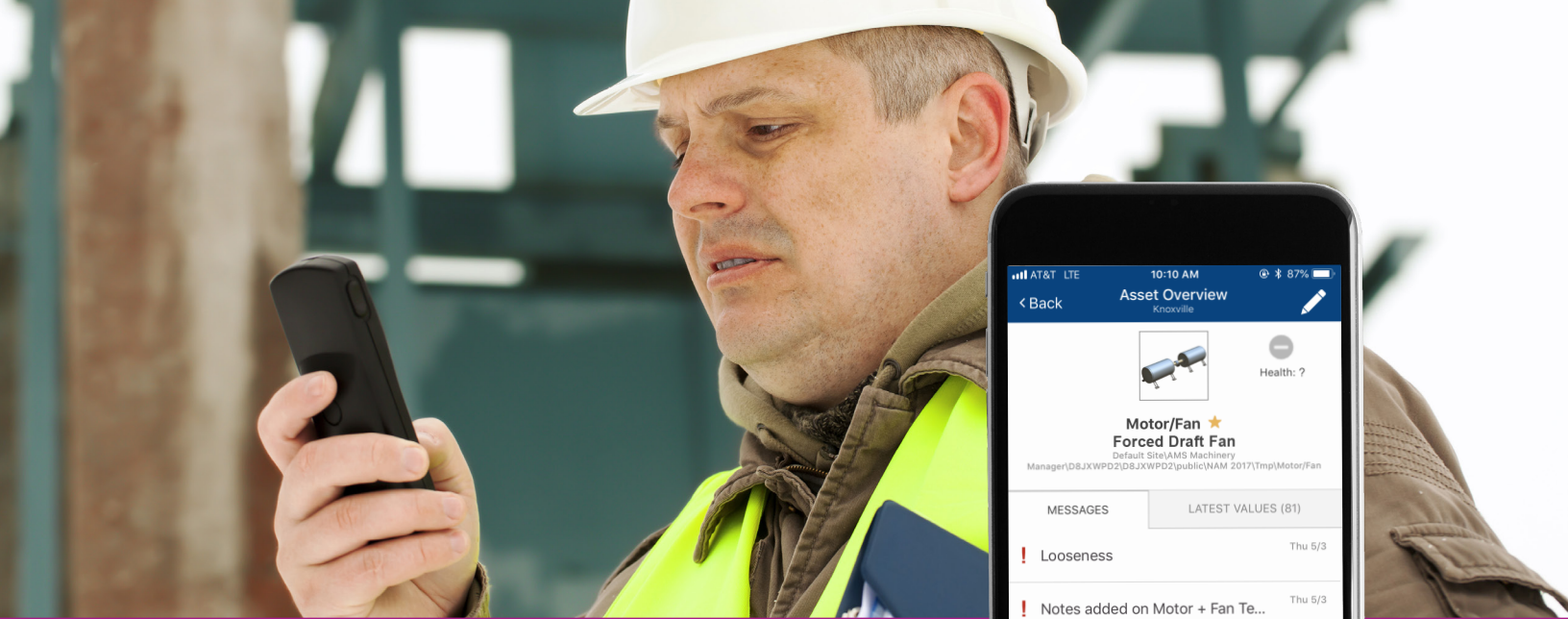
Notifications can contain notes, screenshots, documentation and other critical data, helping engineers and technicians perform their tasks.

risk, but to truly succeed in today's competitive marketplace, plants must also provide that access as quickly as possible.

Choosing AMS Optics allowed the plant's team to work as a seamless, integrated unit. Instead of spending time finding stakeholders

and collecting critical data from various siloed systems, operations, reliability, and maintenance personnel enjoyed instant notification of problems and solutions, as well as one-touch access to the critical data necessary for diagnosis and mobilization.

With AMS Optics, the right people have the right data, at the right time, helping to ensure that asset failures don't become production bottlenecks.



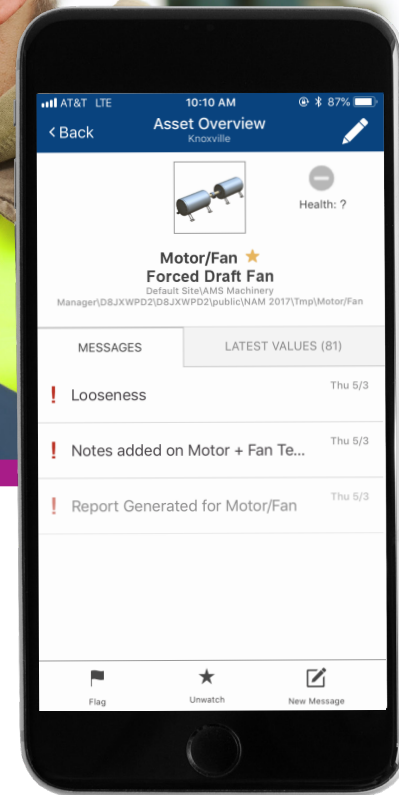
Respond in Time

Running a plant is about more than just making sure that product makes it out the door on time and on budget. At the heart of every plant are the people who operate and maintain the facility, and their safety is more important than anything else. One plant received a stunning reminder of this fact when faced with every organization's worst nightmare—an equipment fire.

When disaster strikes, every second counts. In a traditional reliability setting, even the best laid plans for identifying and communicating a potentially life-threatening situation can be hampered by roadblocks. However, this plant had recently implemented AMS Optics, ensuring that key safety personnel had access to instant notification of emergency events.

Instant Awareness

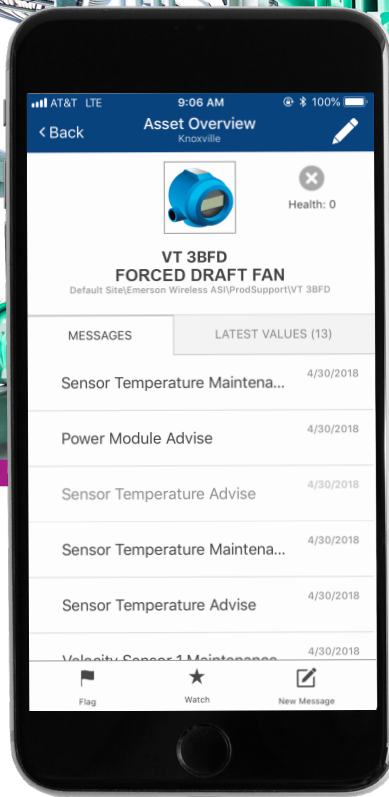
When fire broke out near a forced draft fan, the company's team was well prepared thanks to AMS Optics. A critical piece of equipment that had been known to have bearing issues, the fan's motor had been put on a watch list by operations, maintenance, reliability, and safety teams due to its high risk of fire. When stakeholders received vibration alerts on their mobile devices earlier in the day, they flagged the device for maintenance.



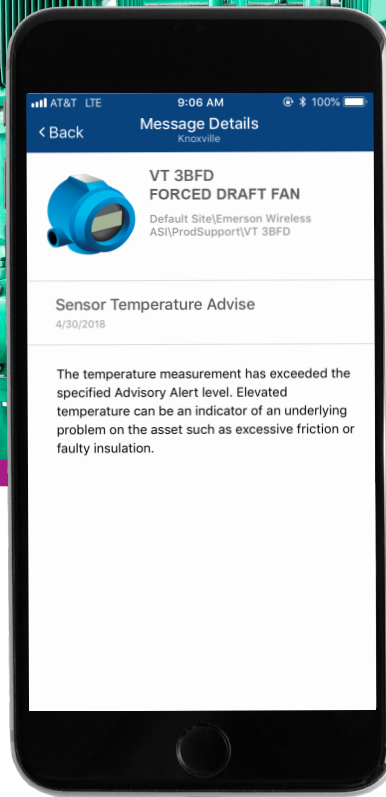
A highly visible watch list feature allows the reliability team to keep a close eye on a problematic forced draft fan.

However, shortly after the fan was flagged but before maintenance crews could investigate the cause of the vibration, key users received high temperature alerts on their mobile devices, and could immediately see that problems had quickly gone from bad to worse.

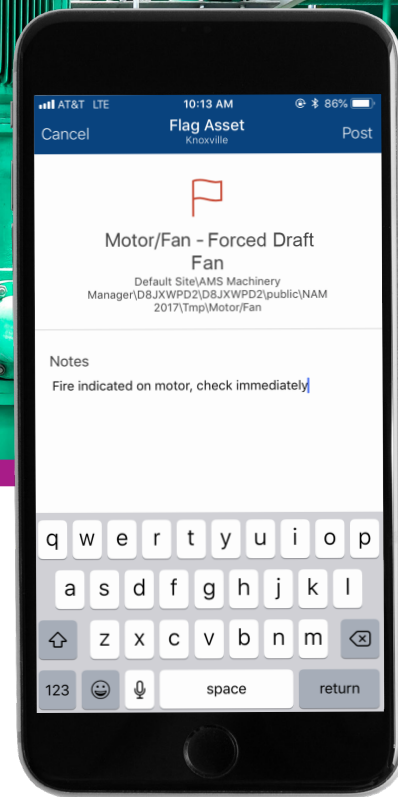
Fortunately, AMS Optics eliminated the delays that would have been caused by the chain of communication had only one stakeholder been aware of the problem. An operator who received an alert immediately saw that problems were serious enough that the asset needed to be shut down. The operator checked the device via a video feed, and could see the flickering that indicated a fire on the motor. This information was added to the asset flag, ensuring that the production supervisor, the safety supervisor,



Instant push notifications on mobile devices ensure that key personnel did not miss critical high temperature alerts.



Relevant-time notifications of the high temperature alerts offer warning, as well as early troubleshooting data.



Collaboration tools allow the operator to instantly notify key personnel of an equipment fire no matter where they are—in the plant or across the globe.

maintenance supervisor, and fire suppression teams were all instantly notified on their mobile devices simultaneously, before the first radio call could even be made.

The fire suppression and safety crews didn't need to wait for the flag, however. They too received the high temperature alert and had begun to mobilize even before the operator had visually identified the fire. The team was already on route to the fan as the fire call came in. At the same time, the safety manager initiated plant safety procedures, getting all people out of harm's way, and mitigating further risks. Through the entire process, the plant manager—out of state at the company headquarters—received instant notifications of

every event and response, providing peace of mind that the situation was under control.

Staying Prepared Means Staying Safe

The difference between a manageable problem and a critical disaster can be only minutes. Those minutes tick away quickly as personnel are trying to communicate critical information across a plant during a crisis. AMS Optics delivers automatic, instantaneous communication and collaboration between plant equipment and the personnel who maintain that equipment, letting stakeholders focus less on delivering information and more on solving problems before they spiral out of control.



Mobile Collaboration for Better Asset Management

AMS Optics collaboration software allows you to prioritize and deliver relevant asset health information to the right people at the right time. You'll make better decisions based on predictive intelligence and improve the maintenance, availability, and performance of key production assets across the enterprise.

After AMS Optics notifies you of a developing problem, connectivity to powerful diagnostic tools takes you another step closer to understanding and correcting the issue. Interfaces to AMS Machinery Manager and AMS Device Manager provide the deeper dive necessary to diagnose and ultimately correct faults in rotating equipment, instruments and valves.

Learn more at www.emerson.com/amsoptics

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