CASE STUDY

Making waves: How Shedd Aquarium is mastering asset management to deliver amazing aquatic experiences

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For years, Chicago's Shedd Aquarium, one of the largest indoor aquariums in the world, needed a more robust maintenance management system. After a long search, it upleveled to Asset Essentials in February 2020. Although pandemic-related delays prevented on-site training by a Siemens Implementation Specialist, this was no problem for Nick Kaiser, Director of Facilities, Technology and System Operations.

Ever since, Nick has led the charge to migrate all equipment and preventive maintenance schedules into the software and streamline maintenance operations to ensure a safe and enjoyable environment for both its aquatic residents and daily visitors.

Bringing inefficiencies to the surface

Between HVACs, aquatic life-support systems, a water plant, solar panels, and public spaces, operating a world-class aquarium is a delicate and complex job. Up until 2020, the Shedd Aquarium in Chicago, IL, was relying on a cumbersome maintenance management program with limited asset integration and workflow functionalities. As a result, the Operations Department wasn't using its resources efficiently or communicating as effectively as possible, putting its capital budget and critical ecosystem at risk.

Since upgrading to Asset Essentials, Nick Kaiser, the Director of Facilities, Technology and System Operations, has been handling the integration of all equipment and preventive maintenance schedules into a centralized database and creating standardized best practices. When he needs Siemens customer service assistance, Kaiser has always had a "fantastic" experience. "I've successfully used the help site to do research, like how to integrate vehicle mileage into the system. It's awesome."

By building this powerful database, Shedd Aquarium has an authoritative data source for asset conditions, maintenance history, and inventory management. Kaiser and the financial leaders can now access accurate, real-time data to make asset replacement and capital investment decisions based on reliable evidence.

SHEDD AQUARIUM

Customer: John G. Shedd Aquarium

Location: Museum Campus, Chicago IL

Vitals:

- Indoor public aquarium on the National Register of Historic Places with:
- 458,000-square-foot building featuring 9 exhibits on 4 levels
- 5 million gallons of water housing 32,000 aquatic animals
- Visits by nearly 2 million guests each year

Challenge: Up until 2020, the Shedd Aquarium in Chicago, IL, was relying on a cumbersome maintenance management program with limited asset integration and workflow functionalities. As a result, the Operations Department wasn't using its resources efficiently or communicating as effectively as possible, putting its capital budget and critical ecosystem at risk.

Results: With Asset Essentials, Shedd Aquarium is:

- Upleveling asset management and maintenance operations with a powerful centralized database
- Shoring up preventive maintenance processes to extend equipment lifespan and avoid unplanned downtime
- Diving into operational data and measuring KPIs to boost labor efficiency and productivity

And with mobile capability, some newer technicians are using it to boost productivity by making work order updates directly in the field. "More-recent hires – the field HVAC technicians – love the app. They're on their tablets all the time. More-seasoned employees want to be on their desktop. I'd like to see technicians using the app more, and not going back to their desktops," Kaiser says.

Power of preventive maintenance

For the Shedd Aquarium Operations Department, preventive maintenance (PM) is crucial for extending the lifecycle of its vast assets and continuing to be a leader in animal wellbeing.

Preventive maintenance involves the regular monitoring and proactive care of all assets and infrastructure to provide a healthy and welcoming environment and predict problems before they occur.

Asset Essentials provides automatic PM scheduling and asset performance data to help the team stay ahead of maintenance tasks, in order to improve long-term asset health and keep all equipment running safely without interruption.

Kaiser and his team have refined the preventive maintenance process to allow for better information sharing and resource allocation, provided that guidelines are followed. "PM-related work orders are done more effectively and with less manager interaction. If the instructions are written well, and enough time is set aside for distributing the work across team members, I don't hear much about it, because it just gets done," Kaiser says.

Diving deeper into facilities data

Today Shedd Aquarium relies on more data than ever to manage its sustainability initiatives and monitor water quality and aquatic systems. Kaiser is increasing the team's efforts to track operations data and key performance indicators (KPIs) to measure the work itself. By tracking KPIs, the Operations Department can gain insights into efficiency, cost-effectiveness, and even capacity to justify the need for more employees to meet operational demands.

With the recent opening of new habitats within the aquarium, a smaller operations team has begun capturing and tracking KPIs for labor hours as a test, before introducing it to the larger group. Asset Essentials offers easy-to-use, customizable dashboards and reports to measure real-time results against established goals and benchmarks.

By continuously monitoring these KPIs, Kaiser and other operations leaders can make data-driven decisions to improve operations and service, reduce costs, and enhance overall performance to set the institution up for continued success.

"We recently added new habitats and got the majority of equipment into the system. The few operators that work in the building are recording their labor hours now," according to Kaiser. "We're working on best practices with those habitats and those individuals before rolling it out to the rest of the team."

Learn more: **assetmanagement.siemens.com**

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