



MACGREGOR

Designed to perform with the sea

CASE STUDY

Aras Innovator Enables an Award-winning Advanced Monitoring Solution at MacGregor

COMPANY BACKGROUND

MacGregor is a leader in sustainable maritime cargo and load handling with three business divisions which are merchant, offshore, and services. 50% of the world's maritime fleet has MacGregor equipment installed. MacGregor is in digital development, and OnWatch Scout is a part of the digital solutions. MacGregor has 1,978 employees across 31 countries. Their sales in 2022 were 569 million EUR.

"What surprised me the most about Aras Innovator was the level of flexibility in the solution. Flexibility was an important criterion for us because we needed a solution to fit perfectly with our existing architecture. Secondly, we were also looking for a wide list of functionalities in the solution. And we were also focused on high level of customization options. We found all of this in Aras."

- Toni Uskola, Director for Platform Management at MacGregor

CHALLENGE

The company selected Aras Innovator back in 2016 as part of a larger transition towards a PLM approach to product manufacturing and management. Having previously been a PDM-driven company, MacGregor discovered visible benefits in the analysis phase, including an increase in data visibility and collaboration daily by transitioning towards PLM.

SOLUTION

MacGregor has built an advanced monitoring solution, called OnWatch Scout. The solution is supported by the Aras Innovator platform and the Aras Digital Twin Core application. The technology behind OnWatch Scout provides customers in the shipping industry with real time insights into the health of their equipment, together with recommendations to ensure proactive and timely actions. Customers can minimize the risk of unplanned and costly downtimes by ensuring fast time to act and improving first time fix rate.

BENEFITS

Today, Aras Innovator acts as the single source of truth for documents like manuals, step-by-step instructions, and spare parts documentation. That has translated into huge time savings in the daily work at MacGregor.

MacGregor, a world-renowned provider of cargo and load handling solutions for the global maritime industry has developed an award-winning monitoring solution with Aras Innovator as its supporting IT platform.

As in the aviation and land transportation industries, time is money in the shipping business. Customers expect reliable, and expedited delivery of goods. If a vessel is not in motion, it does not create value.

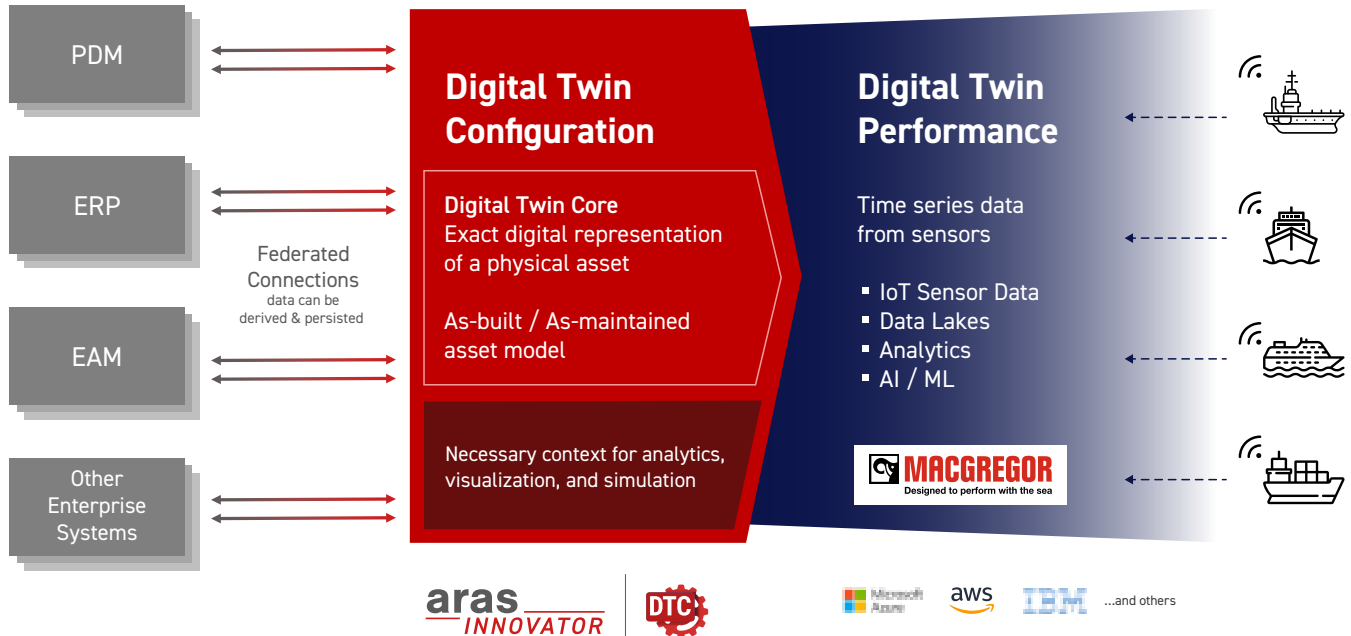
That is why MacGregor—a global leader in sustainable maritime cargo and load handling with a strong portfolio of products, services, and solutions—has developed OnWatch Scout, an advanced monitoring solution that unites performance data from vital equipment aboard the ship and provides condition and predictive monitoring information in real-time to the crew. The crew and engineers can diagnose potential problems aboard the vessel and fix them in real time to minimize downtime and transportation delays. In turn, less downtime means higher savings in time—and money.

OnWatch Scout was developed by MacGregor as a natural evolution of the company's digital services offerings where service engineering knowledge is digitalized to empower customers with information at their fingertips. OnWatch Scout provides customers with real time insights into the health of their equipment together with recommendations to ensure proactive and timely actions. Customers can reduce the risk of costly downtimes by ensuring fast time to act and improve first time fix rate.



Additionally, OnWatch Scout provides the documents and spare parts needed to fix the issue right away. This saves valuable time for customers in solving problems and finding the correct information. Also, as OnWatch Scout is visible to the ship, onshore technical staff, and service engineers, as well as other key stakeholders, they have clear visibility on the issue and can solve it quickly. Thus, OnWatch Scout becomes a complete customer empowerment package for technology management.

Building and Sustaining Digital Twins for the Maritime Industry



"Our intent was to go a step further by not just offering predictive maintenance but also prescriptive maintenance capabilities into a solution. That means when an alarm triggers in the system, we bring attention to an issue onboard the vessel and offer recommendations on how to fix the issue in the best way possible. One of the key features of OnWatch Scout is having all relevant data at hand, such as equipment manuals, specification sheets and other related documents. With this solution, we link all the recommended steps, spare parts, and documents related to those alarms. And Aras Innovator is our backbone in creating this database and managing all the data," says Bhavik Thakker, director for digital solutions at MacGregor.

With the assistance of Aras technical consultants, MacGregor took the concept of product data management within OnWatch Scout forward and developed the additional functionality they needed. With the combined efforts of Aras Innovator and OnWatch Scout, MacGregor can create an advanced monitoring solution for a vessel. It is then able to alert the technical team when attention is needed on the equipment and provides step by step recommendations on how to address the issue at hand.

WON A TOP INDUSTRY TECHNOLOGY AWARD

The OnWatch Scout solution was introduced in 2019. Shortly after the solution was launched, it received positive attention from both customers as well as the maritime technology industry. It was also nominated for a leading technology award, the 2022 SMART4SEA Technology Award which is an annual industry award with several technical innovations competing with one another.

In 2022, MacGregor was announced as the winner of the Technology Award for the development of OnWatch Scout. The jury and the public chose MacGregor's solution because "it is a prime example of a service which uses data analytics to help shipowners and operators develop more proactive and condition-based intelligent strategies for maintenance."

"It is a nice icing on the cake to win such an award because it is an acknowledgment from both the industry as well as OnWatch Scout customers who see direct business benefits from the solution. So, to me the award is an homage to the level of innovation and maturity of the solution. We were competing against some of the biggest names in the maritime industry and promising tech solutions from scale-up companies, so the award is really something we are very proud of," says Bhavik Thakker. He continues...

"I think the biggest surprise to me was how Aras Innovator became such an integral part of a conditioning monitoring solution. It played a significant part of where we are today with OnWatch Scout." says Bhavik Thakker, director for digital solutions at MacGregor.



A RESULT OF A LONGSTANDING RELATIONSHIP WITH ARAS

Long before the idea of OnWatch Scout was conceived, MacGregor was an Aras Innovator subscriber. The company selected Aras Innovator back in 2016 as part of a larger transition towards a PLM approach to product manufacturing and management. Having previously been a PDM-driven company, MacGregor discovered visible benefits in the analysis phase, including an increased data visibility and collaboration daily by transitioning towards PLM.

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"On an average, we were spending three weeks per vessel to configure the data required per vessel. With Aras Innovator, we have brought down that time to less than a week. Now, our intention is to bring down time spent to less than four days. We believe we can achieve this by making sure that the product data and structure of the similar equipment can be copied from existing templates in Aras Innovator. Once we get our data model perfected, I believe our target is very well achievable," says Bhavik Thakker.





ALL ELEMENTS OF DIGITAL TWIN CAPABILITY

Today, the Aras Innovator platform is recognized by both leadership and key departments and users inside MacGregor because of its clear business benefits. The merits of both OnWatch Scout and Aras Innovator have not gone unnoticed also at the corporate level.

“At the coffee machine, I bumped into a colleague from the corporate level who heads the department that works with data-driven services. He was very excited, telling me that MacGregor was the first company in the larger group to have all elements of digital twin capability. He did not know when we do the configuration in PLM, it pushes it to the actual equipment, but when he realized that, he became thrilled. Without Aras Innovator, we could not have achieved that,” says Juha Tuominen, vice president for information management at MacGregor.



Aras provides the most powerful low-code platform with applications to design, build, and operate complex products. It's technology enables the rapid delivery of flexible, upgradeable solutions that build business resilience. Aras' platform and product lifecycle management applications connect users in all disciplines and functions to critical product data and processes across the lifecycle and throughout the extended supply chain. Airbus, Audi, DENSO, Honda, Kawasaki, Microsoft, Mitsubishi, and Nissan are using the platform to manage complex change and traceability. Visit www.aras.com to learn more and follow us on Twitter and LinkedIn.

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