*instinctools

SaaS Quality Management App For a Leading Maritime Software Provider

How broadening their industry-specific software pool with a quality management system (QMS) for maritime companies allowed a world-class SaaS software provider to **win new customers**.

Industry:
Ecommerce

WEB DEVELOPMENT | SAAS DEVELOPMENT | SOFTWARE PRODUCT DEVELOPMENT | ENTERPRISE AUTOMATION

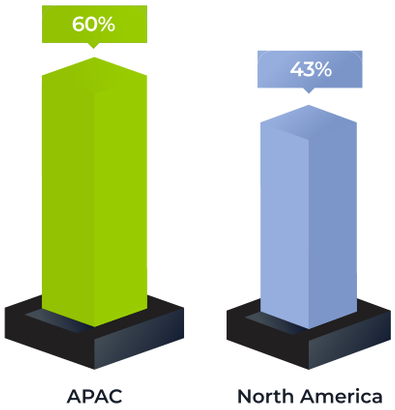
Business challenge

Is there a more common and widespread bottleneck than paper-based workflows? Despite the seemingly ubiquitous focus on technology-enabled business transformation, non-digital-born companies across industries still depend on paper documentation.

Such an approach leads to flawed records, delayed updates, etc., which overcomplicates the quality management process. When quality-related debacles take place at the enterprise scale, companies have to pay for them, not rarely with something more valuable than money — their reputation.

This was the weak spot our client aimed to tackle to help their customers move quickly and confidently down the digitalization path. A **world-class maritime software provider** with several solutions for streamlining industry-specific processes contacted *instinctools to widen their offering with a **cloud-based SaaS quality management system (QMS).**

What percentage of organizations depend on paper-based processes?



*Source: Forrester, Digital Documents Necessity

What issues did maritime enterprises **face** while managing quality documents mostly manually?

Delays at all stages of working with documentation

Failure to keep quality management documents updated

Lack of traceability within quality management processes

Risk of overlooking updated standards and compliance requirements in time

Human error in full bloom

Our client wanted to fix these problems with robust software that spans **quality, health, safety, and environment (QHSE) processes** by:

Digitizing

and streamlining all document-related operations, including creation, editing, etc.

Ensuring

compliance with general and maritime-specific standards

Providing

a **centralized repository with role-based access** to allow users to work with quality documents anywhere, anytime, without compromising security

Automating

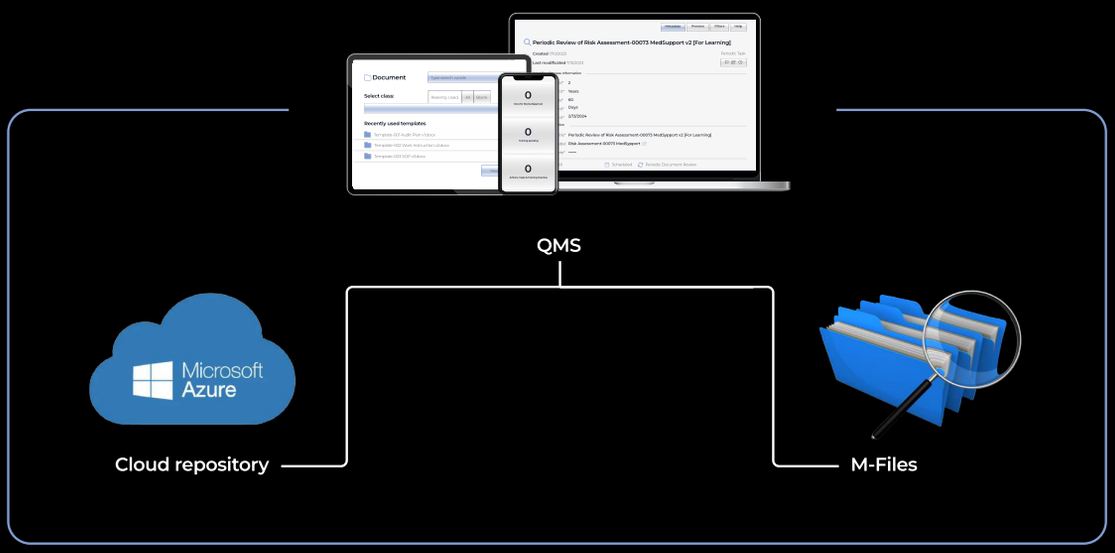
quality management workflows, such as authoring, reviewing, approving, notifying, etc., to **free employees from mundane rule-based tasks** and **eliminate the possibility of human error**

Fostering

transparency of quality management processes thanks to the detailed audit trail

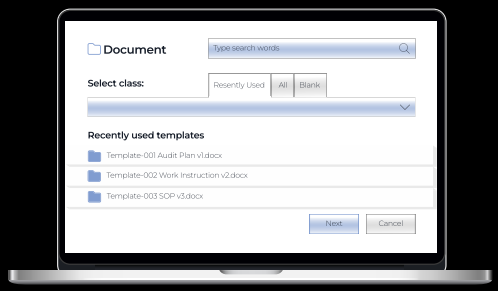
Solution

The client has been delivering solutions for enterprises using Microsoft 365 products. Therefore, our dedicated team went with **Microsoft Azure as a cloud repository** for the QMS. The system also needed a **metadata-driven document management platform** to automate document creation workflows. We've chosen **M-Files** with out-of-the-box integration with Microsoft Azure.



01 Packing the QMS with broad functionality

Banking on the rich off-the-shelf functionality for their customers was at the core of the client's strategy. Therefore, we've crafted the software with multiple out-of-the-box modules that go beyond simple document creation and review and cover regulatory compliance, audits, and risk management tasks.

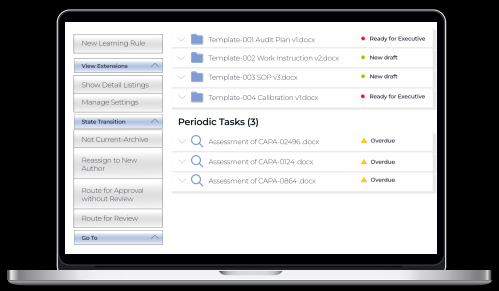


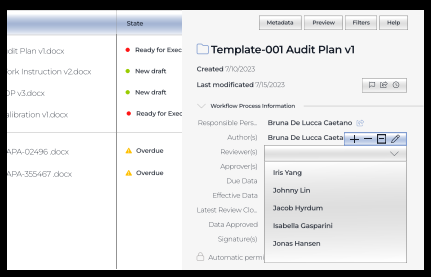
Document creation module

Users can create a document using templates or drag and drop existing **Word, Excel, PPTX, HTML, and PDF files** directly into the system.

Review and approval module

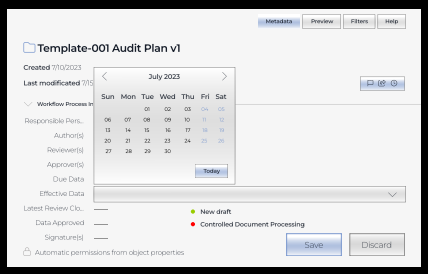
Drafted documents are sent for review or approval.

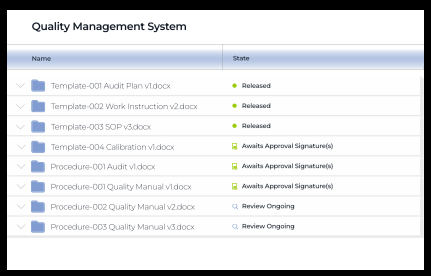




If there are several reviewers and approvers, they can **collaborate on document editing** using track changes.

Authors can set a **deadline** for reviews or approvals.

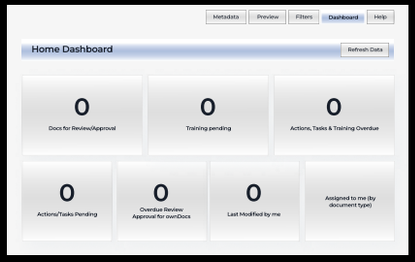


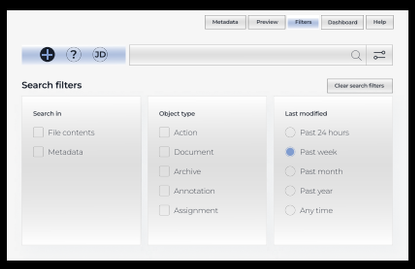


Assigners have **real-time visibility** into the state of reviews and approvals.

Assignees get **email auto notifications** about the documents waiting for their review or approval. Assigners also get auto alerts about suggestions and comments in the documents and when assignees mark them as reviewed or approved.

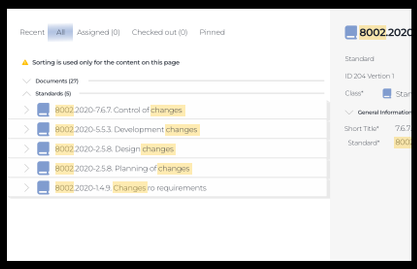
All users have **personal dashboards** as an easy way to access the files for review and approval, last modified documents, etc., just by clicking on the corresponding section.





Also, all users can look for documents across the system with an **intuitive search bar**.

It provides the possibility to search for **exact words** matching the titles and content of the files.



Regulatory compliance module

This module is the heart of the whole system. The QMS is **compliant with the following standards by default:**

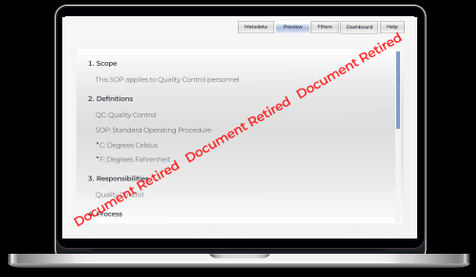
ISM (International Safety Management) guidelines define the safe operation of ships and address preventing pollution.

ISPS (International Ship and Port Facility Security) is designed to uncover and prevent criminal threats, such as piracy, acts of terrorism, etc.

ISO 9001 (Quality Management System) establishes requirements for a QMS

ISO 14001 (Environmental Management System) clarifies best practices that companies should follow to reduce their environmental footprint

ISO 45001 (Occupational Health and Safety Management System) determines physical, chemical, biological, ergonomic, and psychosocial hazards to minimize their impact on the employees' health and safety



Audit module

The client wanted to ensure complete **traceability** across the system, as keeping the company's documentation in order is one of the success factors contributing to **smooth external audits**. Therefore, we crafted a system where any document changes are recorded, and users have a **time-stamped audit trail** and the history of each document at their fingertips.

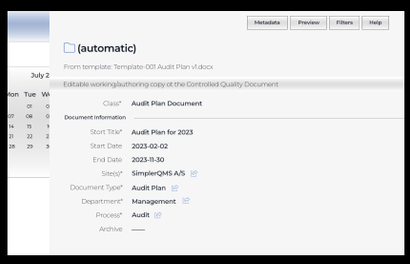
While the QMS always suggests the most recent file version, all roles have access to the previous ones. Document owners can set up **auto retirement** of the document's previous versions when the new one is released.

Internal audits and regulatory checks also become a breeze for maritime organizations with this QMS.

Our development team provided a complementary document template package for:

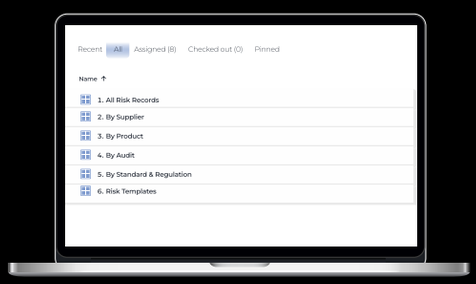
- Creating audit plans
- Scheduling internal audits
- Assigning responsible personnel and reviewers

Both authors, assignees, and reviewers can attach evidence related to the audit findings, making it easier to **unearth and fix alarming issues internally.**



Risk management module

The QMS we've developed enables companies to foresee dangers and prevent or minimize their negative impact

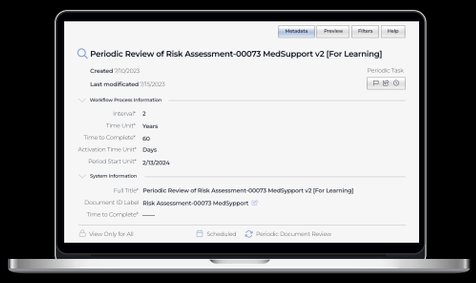


Connect information within the quality management system

Users can connect risk management documents with audit data, records related to suppliers and products, and other items within the system to enhance traceability of potential hazards.

Identify possible hazards with a risk management matrix

Spotting risk-prone issues as early as possible helps cover them before they snowball into severe threats and cause noticeable accidents. The risk management matrix is color-coded so that users can immediately see if there are any catastrophic and critical events that have to be addressed ASAP.



Schedule periodic risk assessments

Risk assessment is an area with high automation potential, and we didn't miss the chance to take full advantage of it, empowering users to set periodic risk assessments within any time frame.

Our software developers **wrote APIs** for data synchronization with external tools to allow the client's customers to seamlessly incorporate the web app into their existing software landscape and facilitate efficient data flow between the QMS and other systems, such as ERP, CRM, IMS, etc.

Business value

Before

- **Underdigitized** quality management workflow
- **Scattered** quality management data
- **Non-automated** workflows
- **Delays** at all stages of working with documentation
- **Lack of visibility** into quality management processes
- High probability of **human error**

After

- **Fully digitized** quality management processes
- **Single source** of documentation
- **Minimized manual effort** with automated workflows
- **Streamlined** audit-related activities
- **Complete traceability** thanks to time-stamped audit trail
- **Reduced** human error

Client's testimonial

Hear about the project's progress and outcomes directly from its product owner:

Tim Rosenberger
Director, Global R&D at SpecTec

*"I was impressed by the developers' skills and by the ability of *instinctools to extend the team on really short notice. I'm looking forward to the collaboration with *instinctools on our upcoming digital transportation projects"*

Watch testimonial

Do you have a **similar project idea**?