



TOMRA Sorting:

Improved quality of the sorting process
and data driven services for end-customers

Background

TOMRA Sorting, a leading manufacturer of industrial sorting machines, is, undoubtedly, an early digital era adopter.

TOMRA's optical sorting and grading solutions cover diverse industries, such as food, mining, and recycling. **TOMRA Insight is a cloud-based solution that enables remote access to local site data** through a web-based interface on desktop or mobile devices. It is a customized version of the PA/Inimco platform, which is a scalable and reusable platform built on MS Azure, connecting hundreds of machines worldwide.

This platform allows customers to validate end product quality in real-time, and TOMRA Insights seamlessly integrates with the MS tech stack and third-party technologies. The solution also offers customizable reports and dashboards, providing specific user groups with the necessary information for their roles, thereby eliminating manual data collection.

With the TOMRA sorting system and machines, businesses can improve their data practices using this comprehensive solution.



Challenge

Today's sensors used in sorting technology do a lot. **They collect and process every single piece of information** about how your machine is performing, the products passing through, and finally, the process itself. Moreover, an additional legacy issue with traditional sorting machines is the lack of connection to larger business systems.

That would require a tightly secured platform that opens an information gateway for sorting machines. The solution stores and processes the data coming in and provides ready-to-use data to monitor and optimize operations, accessible through your standard web browser, designed for maximum flexibility.

This was the catalyst for TOMRA Insight.

Solution



HOW WAS THE CHALLENGE SOLVED?

TOMRA Insight, a powerful industry 4.0 cloud solution on the MS Azure Platform, arose from a TOMRA Sorting and Inimco/PA Solutions collaboration. It is set to be the new best practice in terms of Industrial IoT.

This collaboration took TOMRA's cloud-connected machines to the next level by remotely delivering customers highly valuable information through their generated data.

WHAT SOFTWARE IS INCLUDED OR USED?

Azure IoT/Data Analytics stack, ADX, Custom IoT Edge Modules, App services & Functions, custom web portals.

HOW WAS THE SOLUTION TECHNICALLY REALIZED?

The TOMRA solution was built on Microsoft Azure IoT, utilizing a combination of PA/Inimco Facts platform components, the Azure data analytics platform and a customized, interactive web portal. With the help of Azure IoT Hub/Edge, Azure Stream Analytics, and multiple processors, machine data is ingested in real-time and enriched with contextual data. **The enriched data can then be monitored** through a variety of customizable dashboarding and reporting tools, including an end-customer portal and an internal portal for operations. This allows for the seamless integration of Tomra's sorting system creating a comprehensive solution for businesses to improve their data practices.

Benefits & Facts

Using a standardized IIoT platform, the customer is able to quickly scale on a global level.

Next to scaling, the TOMRA Insight solution also helps them to improve the validation process by increasing the amount of sensor data that is monitored.

This has helped them see big improvements in efficiency, quality, and collaboration by collecting data from legacy to new machines.

CUSTOMER PROJECT OUTCOMES:



Improved quality and insights for end customers



Being years ahead of the competition



More than 400 machines connected

Conclusion & Scope

TOMRA Sorting's partnership with Inimco, a PA Solutions company, has produced TOMRA Insight, an Industry 4.0 cloud solution built on Microsoft Azure.

This standardized IIoT platform allows for quick global scaling, improved efficiency, and increased collaboration through the collection of data from both legacy and new machines.

Unlike classic IoT platforms that read machine data, **TOMRA Insight focuses on the actual product passing through the machine**, providing meaningful information in real-time.

Inimco's adaptation of Microsoft Azure technology to TOMRA's needs has enabled the transformation of entire product batches into valuable insights, providing a clear advantage by making all workflow data accessible online in one place.



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