Industry 4.0: Quuppa Adapts to Real-Time Changes with Arena PLM and SiliconExpert

A major reason why one manufacturer of real-time location services chose their product life cycle managment tool.

Quuppa

Industry 4.0

The fourth industrial revolution is one in which all things are connected to make production more efficient. Networked software brings product teams together, connecting the tools that they use to do their jobs harmoniously. The Internet of things has taken this a step further, connecting the hardware used to build products to realize new efficiencies.

Quuppa enables Industry 4.0 through its real-time locating system, a technology platform that leverages an infrastructure of Locators and tags to collect valuable positioning data. The tags are applied to the things that need to be tracked. In a typical warehouse, these would include parts, the tools used to assemble and the automated vehicles that move them around. Locating these things instantly can significantly reduce the time needed to make products available. The Locators are placed on the ceiling to pinpoint the whereabouts of tagged objects.

Increasing Complexity

Implementing the Internet of things requires a lot of electronic parts and has increased the demand for these parts considerably. There are more products than ever vying for the same components. New manufacturers have entered the market sourcing materials from new places. All parts are not created equally, and a sea of information exists that must be investigated.

Compliance

Quuppa must make sure that its solutions are compliant with government regulations such as the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) and the Restriction of Hazardous Substances (RoHS). At the same time, it's important to be mindful of the availability of the components that make up their solutions. This means monitoring of hundreds of parts to make sure that they are compliant and have an adequate inventory for the life of the product.

- **IEC 62474**
- **IPC-1752A**
- **REACH**
- **RoHS**
- **Prop 65**

The Problem

Traditionally, this involved maintaining a spreadsheet with all the information for each part on a separate row. Quuppa would ask product managers or engineers to find the datasheets for each component and update their file with the latest information. They quickly realized that this kept key employees from performing other important duties, and so they outsourced the research. This only served to replace their time problem with a money problem. Though their product managers' and engineers' time was freed up, the research still took time. Checking ten to fifteen components would take their supplier several hours. Beyond that, passing around a spreadsheet presented other problems. They found themselves asking questions. "Is this the latest version?" "Does this include the updates from last week?" "Which version did you update?" They needed a better solution.

The Solution

They looked at product life cycle management (PLM) tools and decided to focus on Arena PLM to help them manage their bills of materials. It provided a single source of truth for approved product statuses. Arena's integration with SiliconExpert was one important reason why they chose it. The SiliconExpert database contains information on over one billion parts, curated by hundreds of electronics engineers. Arena pulls that information into its PLM tool using SiliconExpert's application programmer's interface (API).

Now, up to date information on their parts is automatically brought into Arena PLM. "This has decreased the amount of time spent researching parts by an order of magnitude!", says Suvi Erlund, Product Manager at Quuppa. It helps Quuppa to strategically plan in a world of ever-changing regulations and supply chain disruptions. The connection between Arena PLM and SiliconExpert helps them to efficiently make their Intelligent Locating System so that others can be more efficient. Industry 4.0 is making Industry 4.0 possible.

How Can SiliconExpert Help You?

Contact us at partners@siliconexpert.com to discuss your specific challenges and get a custom solution.