STILL: Building the intralogistics metaverse

Why Google Cloud

Driverless transport vehicles with modern sensors, such as laser scanners and cameras, are already being used in intralogistics and production plants. But their data isn’t always being used to its full potential. In 2021, STILL launched the ARIBIC ("Artificial Intelligence-Based Indoor Cartography") project, aiming to build a live digital twin for warehouses, that can collect and analyze telemetry data, and help create the next generation of autonomous, smart warehouses. Google Cloud's data and machine learning capabilities were key for ARIBIC with the potential to handle the massive amount of forklift data to train ML models.

Solution

STILL implemented Cloud Functions, Vertex AI, Kubernetes and Cloud Run to provide an autonomous pipeline, as well as Cloud Storage to store unstructured data. Generally, ARIBIC uses sensor data from warehouse equipment to create a real-time, digital replica (twin) of the warehouse in the cloud. This "living" 3D map constantly updates as forklifts move around. The next step will be to provide applications for localization, load tracking, inventory, damage detection, warehouse optimization, and much more. For example, if a customer wants to get the current status of goods in a warehouse, they can simply press a button and get it right away from the warehouse’s digital twin. This will form the intralogistics metaverse.

About STILL

STILL offers customized intralogistics solutions, and implements the intelligent teamwork of forklift trucks and warehouse technology, software, and services.

Industry: Manufacturing

Location: Germany

Impact

- **High-quality 3D maps** enriched with semantic information for digital services using data from different sensors
- **Tracking of goods** from inbound to outbound

> “We were looking for a platform that offered a wide range of services for data and machine learning. Google, along with Google Cloud, its broad product portfolio, and expertise in 3D mapping, was the ideal partner for our project.”
>
> STILL

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