



ENGINEERING MEETS GAME ENGINE

A desktop app to transform the planning process for firetrucks into a user-friendly environment in UNITY3D where customers can interactively configure their desired vehicle.

To simplify building individualized firetrucks, one of the world's largest manufacturers of fire-fighting technology in fire and civil protection created an interaction system that allows planning trucks according to customers' needs.

ANALYZING THE PAIN POINTS

Analyzing the status quo of the current firetruck planning process offered insight into the following pain points:

- Complex user journey between the end customers' demand and their desired truck
- More employees with planning capabilities are needed
- Missing overview of utilized equipment in a newly planned firetruck
- Heavy CAD data slows the planning process down
- No standardization

Developing a digital solution to turn those pain points into opportunities was addressed by ILI.DIGITAL.



TURNING SPECIFIED ENGINEERING KNOW-HOW INTO AN INTERACTIVE PLANNING TOOL

The concept was to create a desktop app that allows customers to configure their own truck.

End-customer engagement

The app contains a web viewer to interact with a planned truck in real-time and view the configuration.

Individualization

For the variable truck equipment, the user has a dynamic equipment library that is updating from the server. Users can upload their own parts into their scene as well as to the server.

Standardization

Within the application, certain truck models, semi variables (optional truck equipment with fixed positions), and carrier systems are stored. The user can configure a truck based on brand, drive transmission, wheel distance, and build-up type.

Lean process

To slim down the planning process, the app was built partially on local data and partially on synchronized cloud data.



THE SWEET SPOT BETWEEN STANDARDIZATION AND INDIVIDUALIZATION

With the desktop app, the fire-fighting technology manufacturer now disposes of a tailor-made truck planning process aligned with the production requirements.

On the one hand, this enables the company to plan firetrucks following the relevant standards, which makes the entire sales process more efficient. On the other hand, there is still the option of taking individual customer requirements into account for the planning process.

IMPACT

With the desktop app, sales representatives can install the tool on their laptops and take it to the customer to digitally plan the truck they want.

Using the app customers can visually experience the high technological standard of the vehicles even before they are produced and e.g., examine different deployment scenarios for aerial ladders. The app helps to understand the requirements of customers and simplifies communication.

In sum, digitalization has made the planning process for firetrucks scalable, flexible, and more efficient.



KEY SUCCESS FACTORS

All in all, the desktop app is built on the following three pillars:

Knowledge transformation

Specified engineering knowledge is transferred to the 3D configurator, thus less human planning capability is required.

3D transformation

By creating an interactive 3D system with an intelligent data infrastructure, planning firetrucks according to customer needs is a more engaging and efficient experience.

Lean transformation

With the hybrid app architecture, the planning process is much leaner and faster than before.

EXPERTS AT ILI.DIGITAL



TIM // Project Management



BERKER // Development



PETER N. // 3D Design

PROJECT DURATION

ILI.DIGITAL follows a clear strategy which exactly defines how long single processes take. Therefore, the time required for a project is easy to estimate.



Identifying opportunities and creating a portfolio of strategically evaluated value propositions for the next 3 to 5 years



Value proposition, value creation, and value capturing - designing disruptive business models ready to be implemented



Creating tangible and viable prototypes and making the created business models future-proof and disrupting the current business model



Transforming validated prototypes into real-world solutions and launching minimal lovable products



Scaling the digital business models to create new revenue streams and to ensure success in the future