



Product Design For a World-Class Leader In Intelligent Lighting

How replacing an outdated 924 touch panel with a brand-new digital lighting control in just three months helped a manufacturing company expand its market reach.

Industry:
Manufacturing

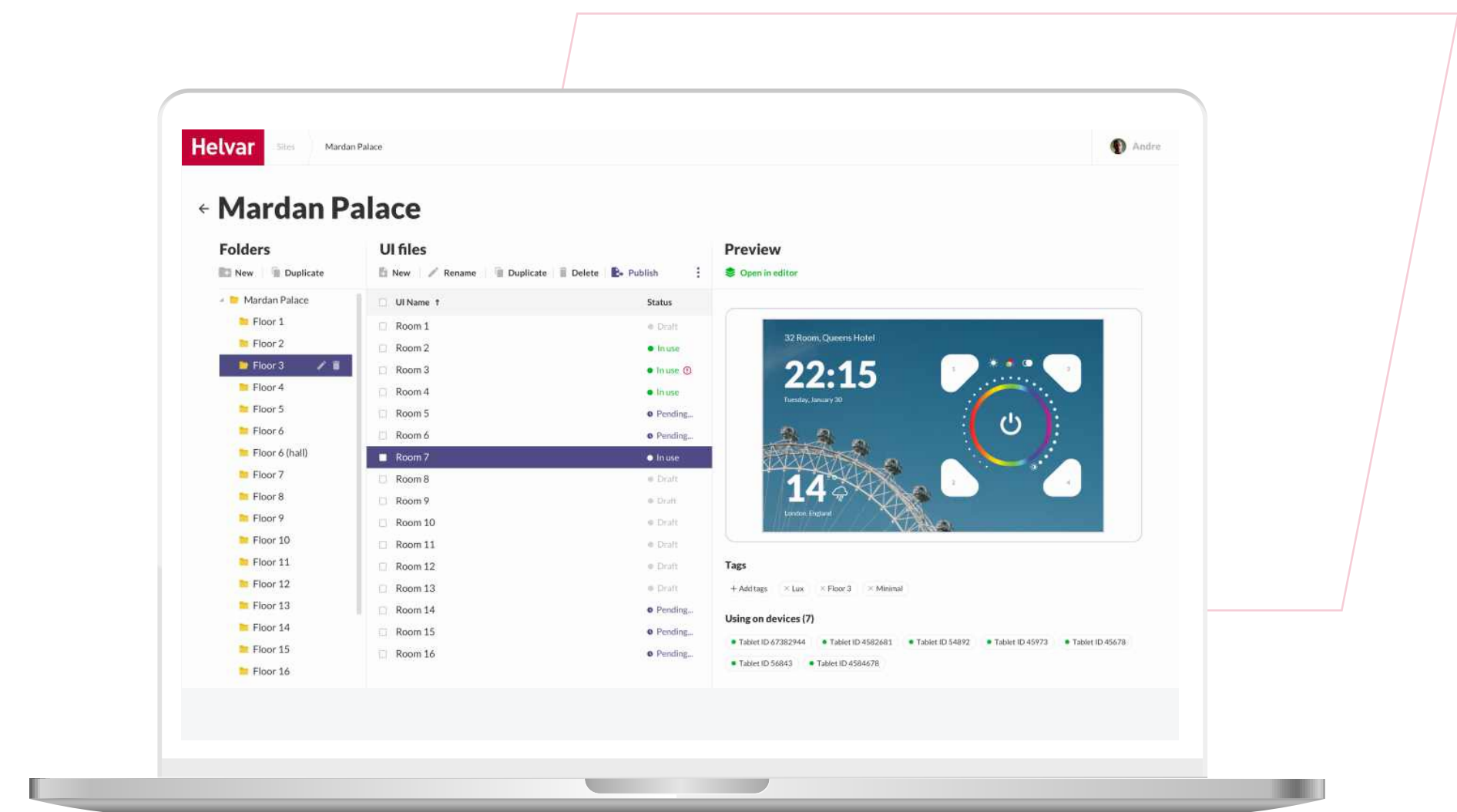
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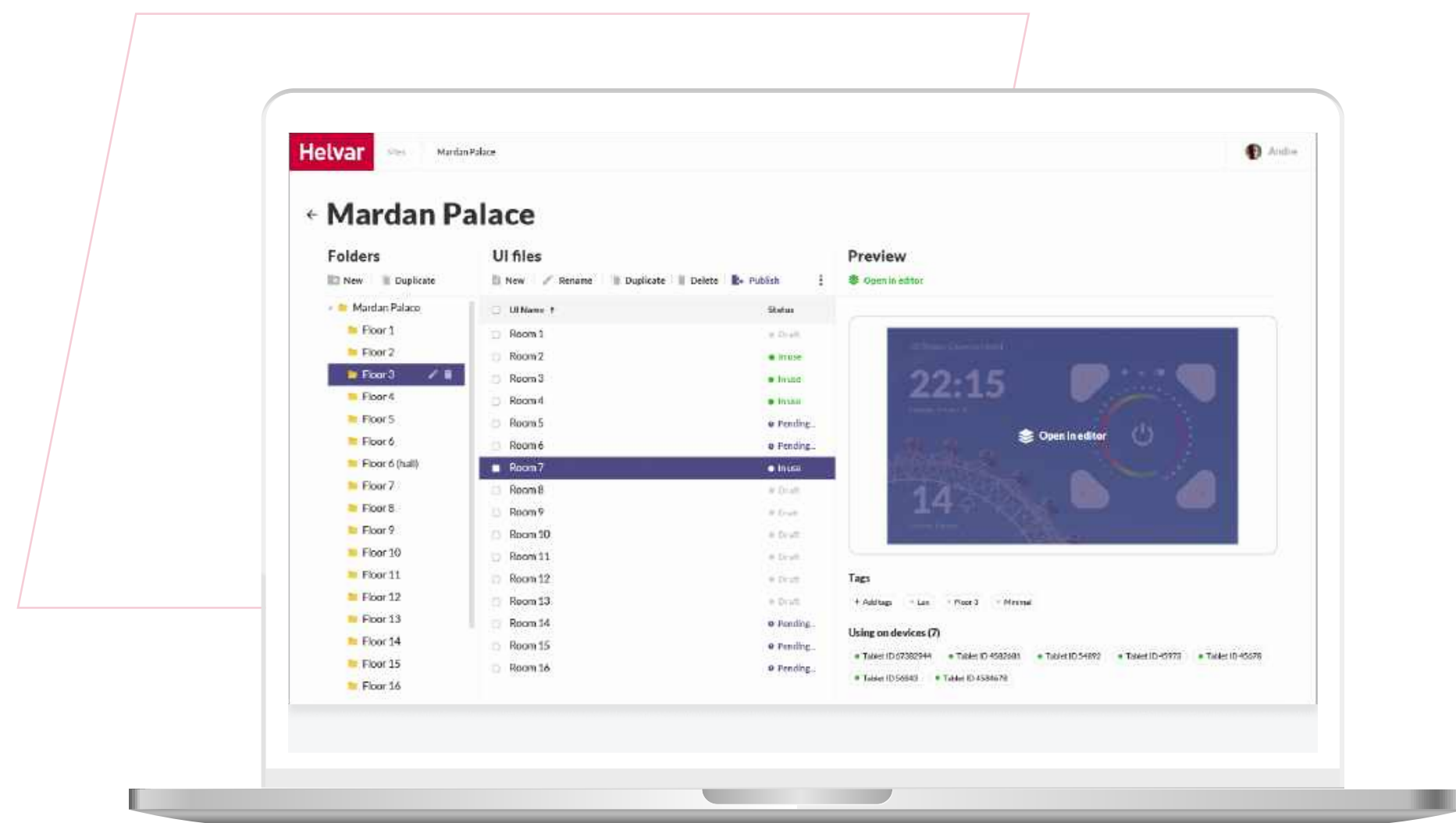


Business Challenge

Being among the industry leaders doesn't mean resting on your laurels is an option. On the contrary, it goes hand in hand with the necessity to keep looking for new paths and rapidly providing innovations to secure the top position. That's why we were approached by Helvar — a company that crafts **smart and sustainable environments with AI-powered energy-saving lighting control solutions**.

They already had physical controllers for intelligent lighting with pre-configured and adjustable lighting scenes and software for lighting management in a particular room. Even with this, Helvar wanted to raise the bar higher and create a product that had never been on the global market before.





The client had an idea of a **digital solution for centralized and local lighting that could be controlled and configured from a tablet. Moreover, the application interface on the device had to allow for unlimited customization in functions and looks.**

Such a product would enable enterprises with large-scale physical facilities to step away from the traditional smart lighting with cables and switches. The **digital approach would help reduce lighting wiring and maintenance costs** that can become a sizable chunk of the budget for facilities with 100+ rooms.

For Helvar, the new product would strengthen the company's leading position in the market and will help attract businesses with sizable physical facilities, such as hotels, hospitals, etc. to more efficiently fulfill their lighting needs.

What products did **Helvar** use to leverage, and why were they insufficient?



Illustris

It's a physical controller for individual room lighting control managed from a mobile application. However, its functionality was limited to changing light temperature, color, and intensity.

924 touch panel

A solution for advanced lighting control with pre-configured and adjustable lighting scenes sounds great, but there was a nuance. It was released in 2013 and had outdated UX/UI and needed to be managed by remote control.



Even if the client married the Illustris design with the 924 touch panel's functionality, they wouldn't get the product they had on their mind.

Helvar was after a brand-new solution and already had a vision of its parts:

Web Application



A **web application** to generate a building plan and create a library of interfaces for lighting control in each room of a building (selecting button functions, widgets, etc.). This data becomes UI files, which are then used in an Android application.

Android App



The **Android app** for a tablet placed in each room to allow end users to fine-tune the lighting to their needs.



The client had only an idea of the lighting control applications, and they needed our comprehensive [software product design services](#) to build a truly resilient solution with an intuitive, yet feature-rich interface and unlimited customization options.

What **head-scratchers** did we face?



Designing

two separate applications for different groups of end users

The client needed the web application for Helvar employees (“Engineers”) to create interfaces for high-level lighting control and switching between various lighting scenarios, and the Android app for Helvar’s clients (“End users”) to customize the lighting in a separate location.



Creating

a well-thought-out UI manager and UI editor to make lighting control a breeze

Providing customers with what they are hungry for is a cornerstone of any app’s success. The product owner wanted to hone the user-friendly design, so we had to craft first-rate tools with enhanced UX to efficiently manage smart lighting at the level of the whole building and spaces within it.

What head-scratchers did we face?



Striking the balance

between user-friendliness and cost efficiency
when mapping a building plan in the apps

The client had only an upper-level idea of the solution's design. Our task was pinpointing the most efficient way to implement it without breaking the bank.



Delivering

an additional condition that made the task
more challenging was moving at pace

The **client has pointed out that the solution has to be ready in 3–4 months**. Therefore, our team of UX/UI designers, a product designer, business analyst, web and Android application developers jumped in right away.

Solution

As with any product design project, we moved according to our battle-tested software product design process to make Helvar's solution a market success. Here is what we encountered at each stage.

01 Project setup

Instinctools is praised by its customers for a methodology-agnostic approach and the ability to adjust to any client's requirements. In the case of Helvar, the product owner insisted on **daily syncs to ensure all the stakeholders and the design team were kept in the loop**.

We readily met this condition and worked in small iterations providing the client with **fully functional interactive prototypes** to address any concerns straight away and ensure the final design would pass the validation seamlessly. Speaking about the amount of work we've carried out, our design team prepared **40+ layouts in InVision**.

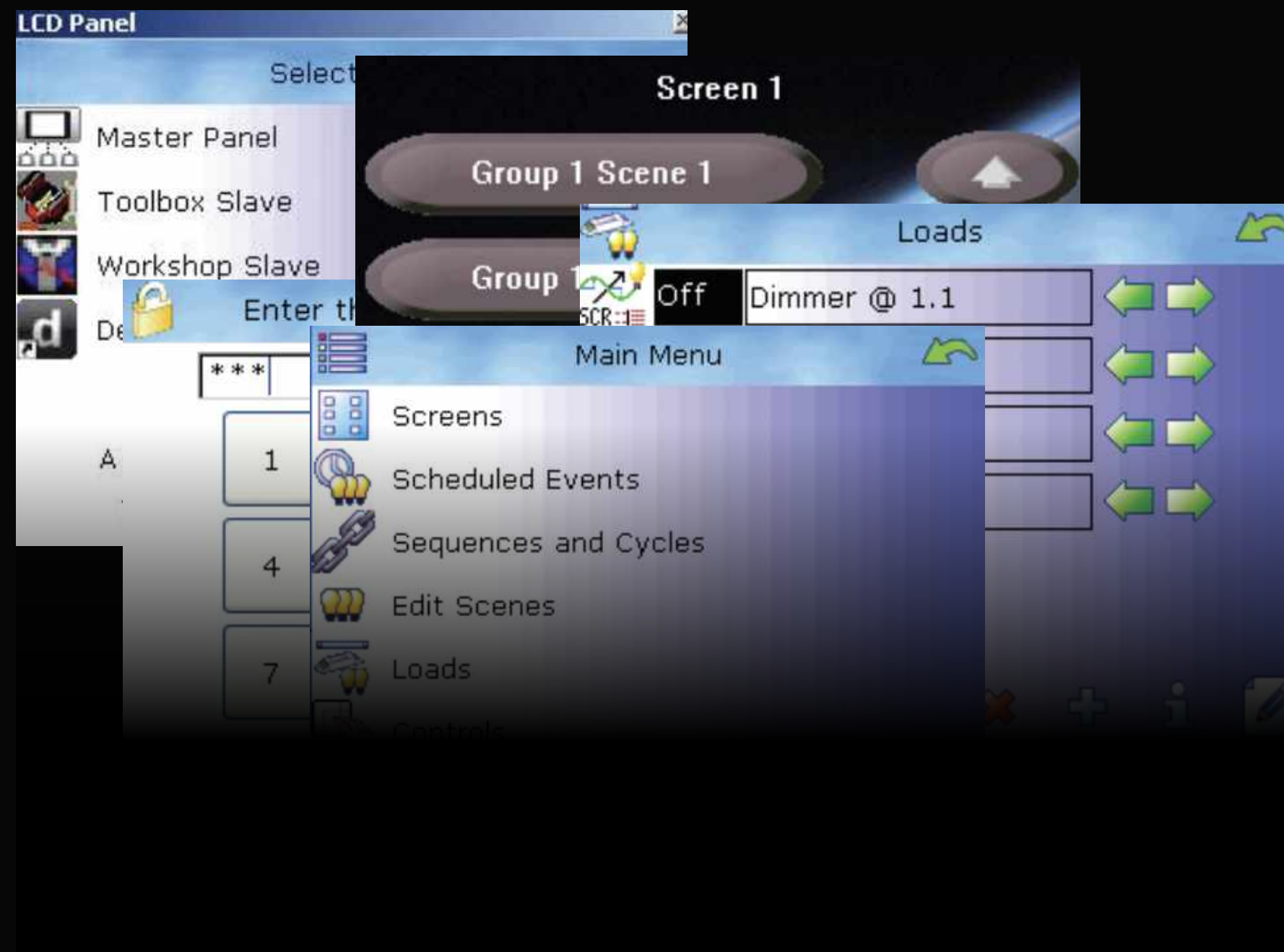
During the project setup, we discussed the initial design concept the client had beforehand and determined the app's usage contexts:

- Boardrooms and a reception area in an office building
- Patient rooms and a reception area in a hospital
- Suites and a reception area in a hotel or cruise ship

As Helvar's engineers were supposed to create UI files in the web application and then send them to the Android app where end users could operate with them, we started with the web solution.

At this stage, we reviewed the groundwork the client **has done before reaching out to *instinctools**. For instance, they'd already had early design concepts based on the design of their other product — **Illustris**.

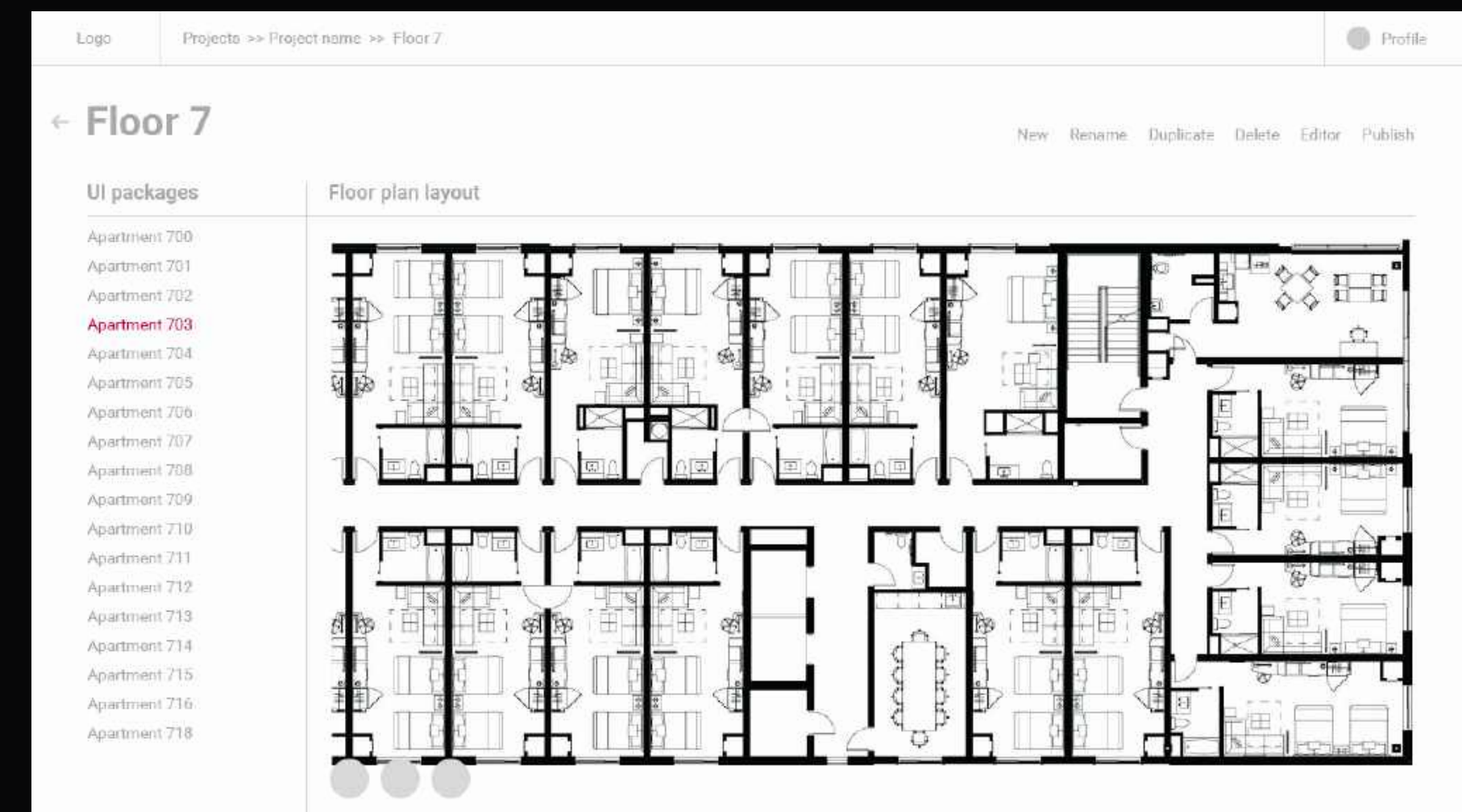


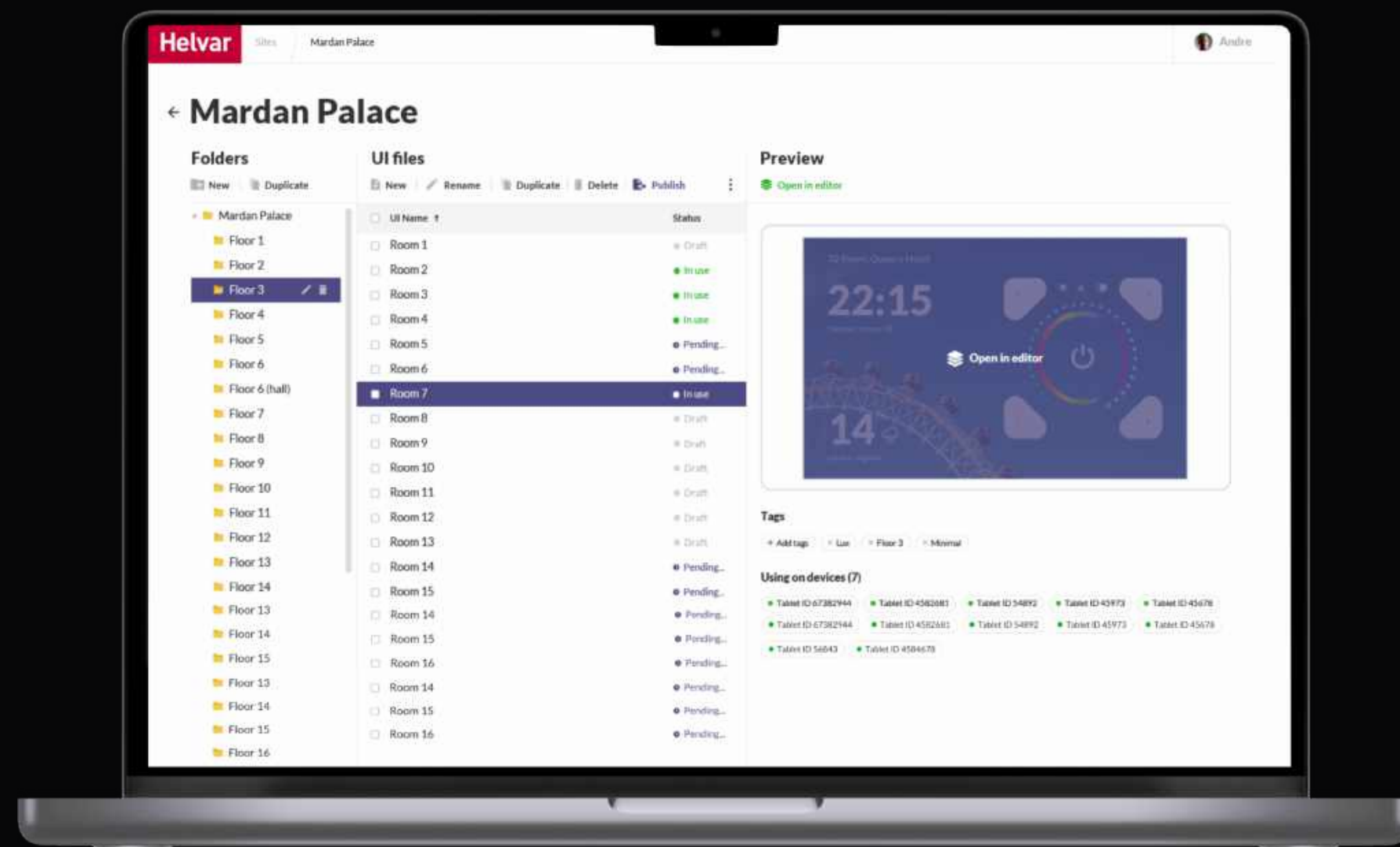


The client wanted to reuse the logic of the existing solution when crafting a future-proof digital touch panel with top-notch UX.

Still, the new lighting control solution required a more up-to-date design and customizable functionality to serve in buildings with hundreds of various spaces.

Implementing a building plan was a prerequisite for providing an easy-to-grasp lighting control. Because of this, we had to figure out the best way to put it in the application's interface. At first, our team discussed making a detailed plan for the whole building.



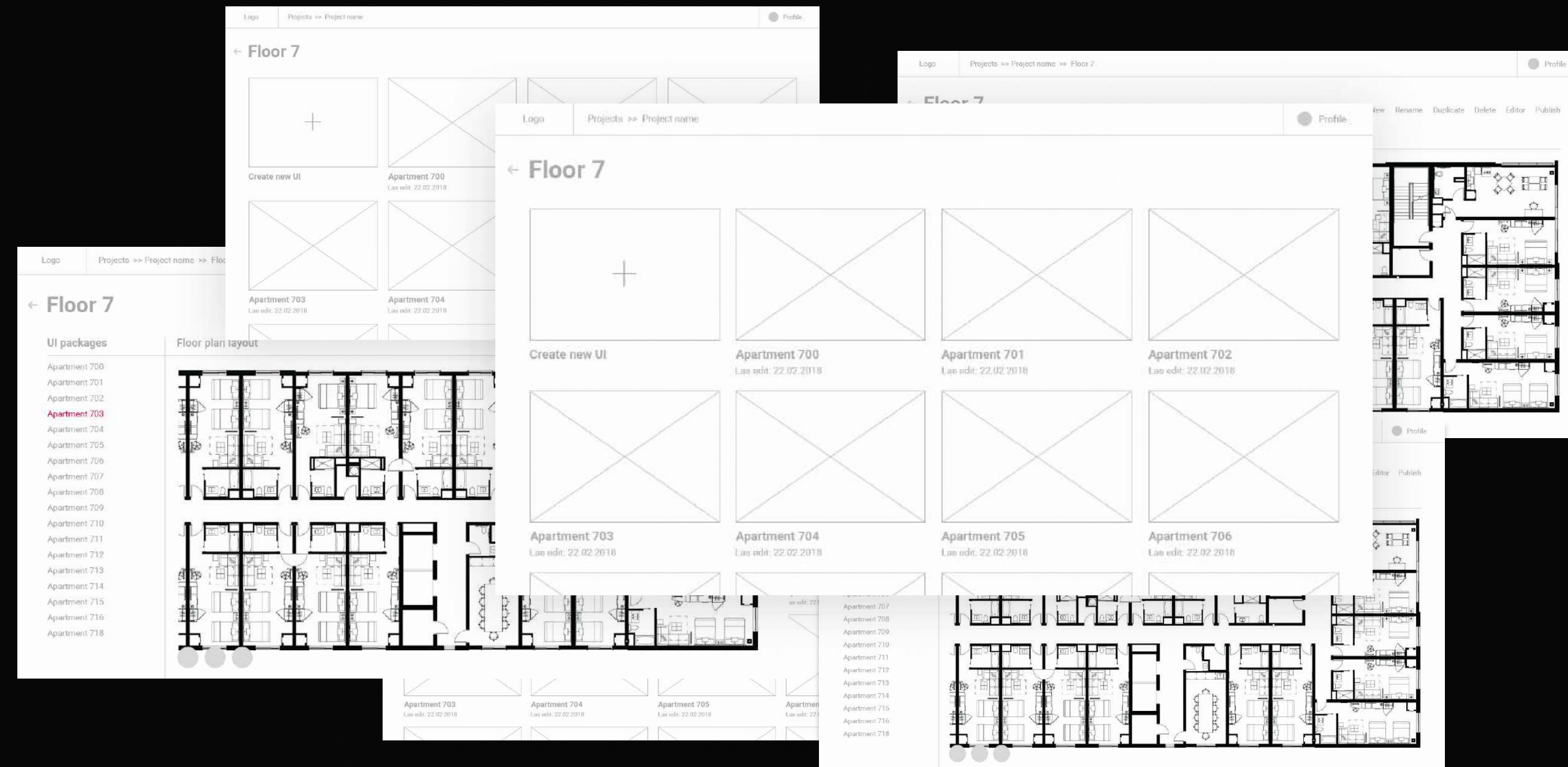


Nonetheless, such an over-elaborate scheme required more time, effort, and investment from the development standpoint. So we devised a more sleek solution and suggested **organizing a building into folders by floor and individual room with UI files for each locale.**

03

Wireframing

Here is an illustration of how the idea of folders was implemented at the wireframing stage.

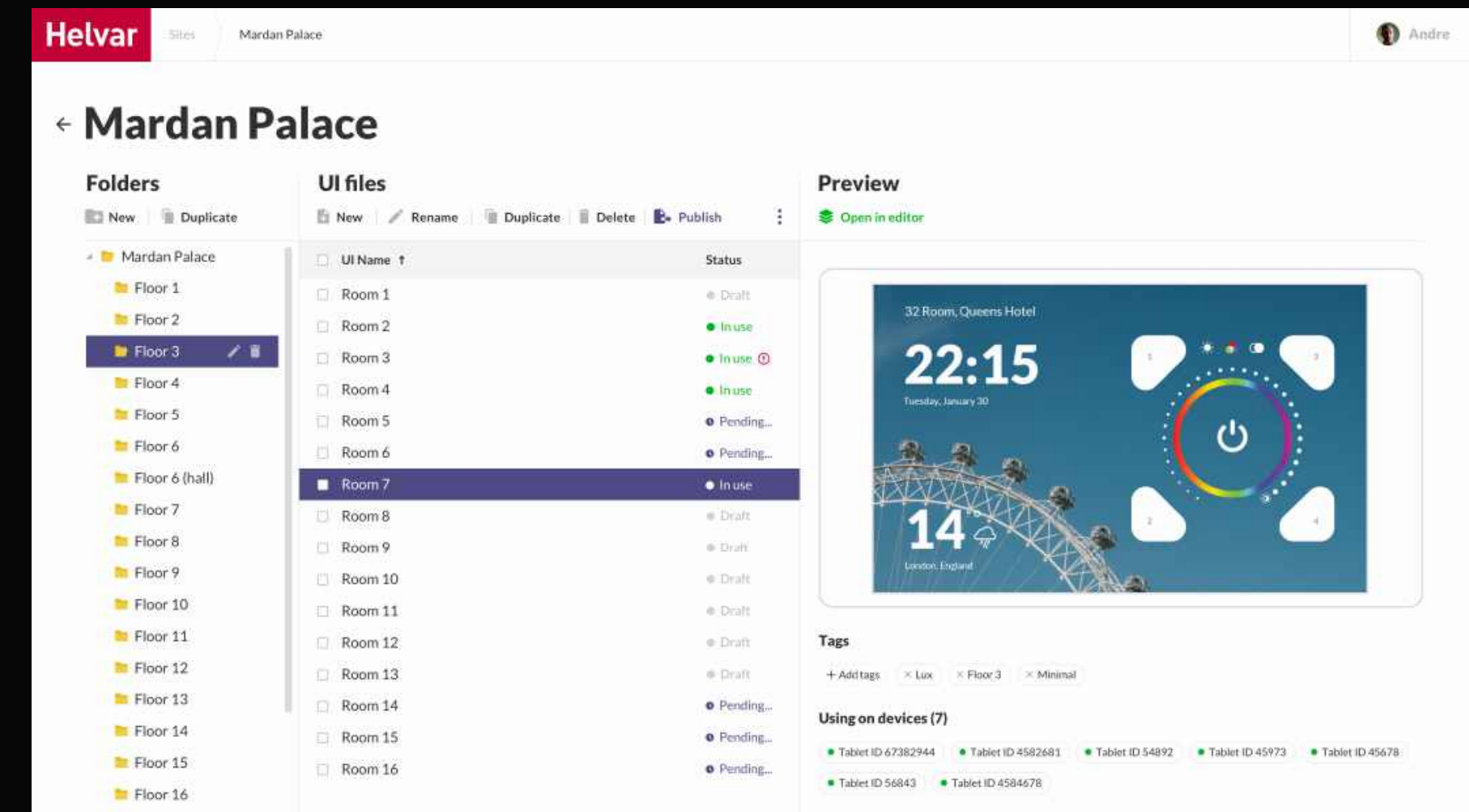


Next, we moved to designing solution components – **UI manager** and **UI editor**.

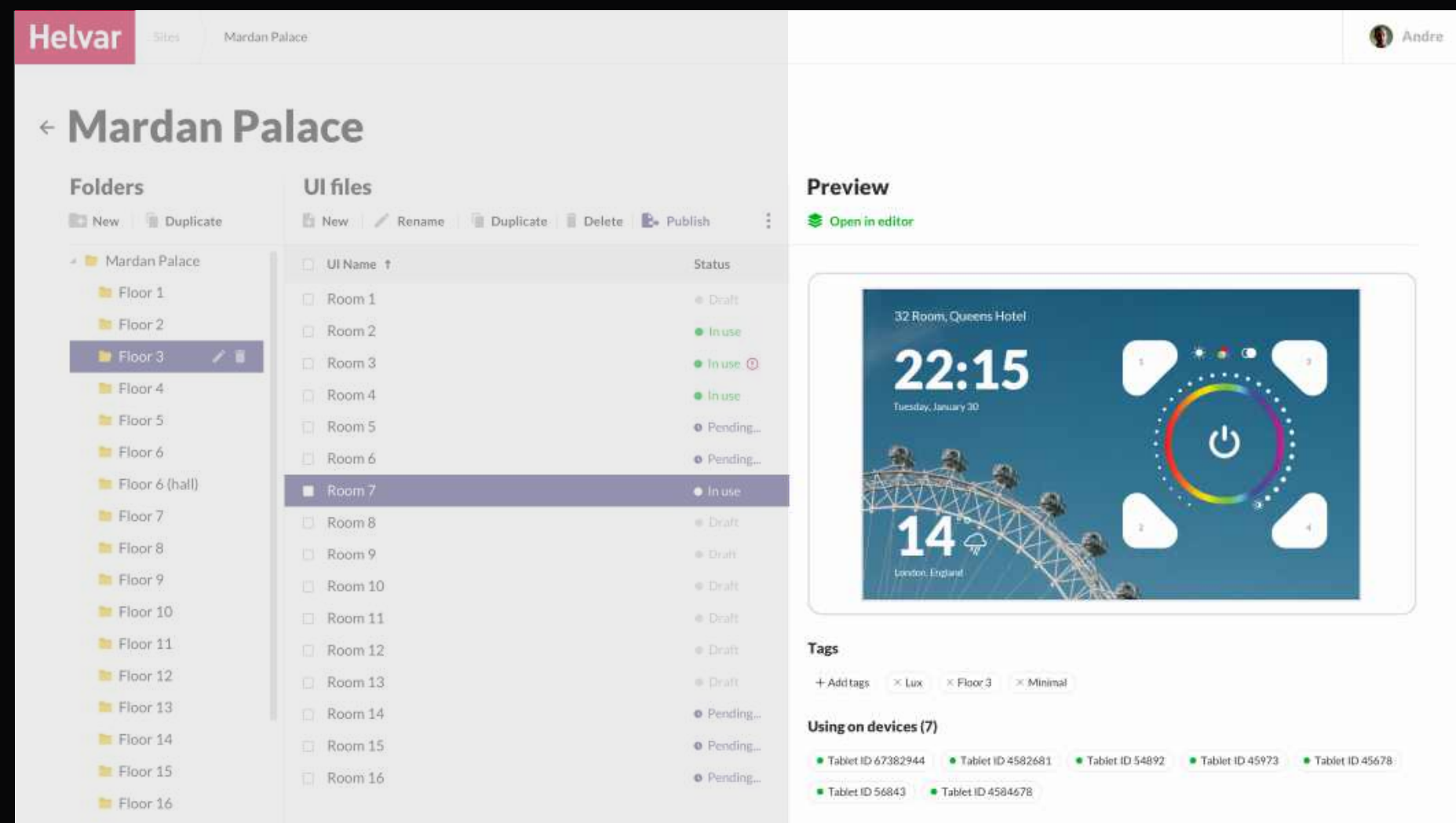
We had to provide Helvar's employees and end users of the lighting solution with clear and customizable digital tools. So our team came up with the idea of a **UI Manager and UI Editor**. But while we could leverage Helvar's existing products, such as Illustris and the 924 touch panel for the Editor, the UI Manager had to be designed from scratch.

UI Manager

The UI Manager is a part of the **web application for engineers** where Helvar's staff creates a folder structure corresponding to a real building.



04 Visual design and development

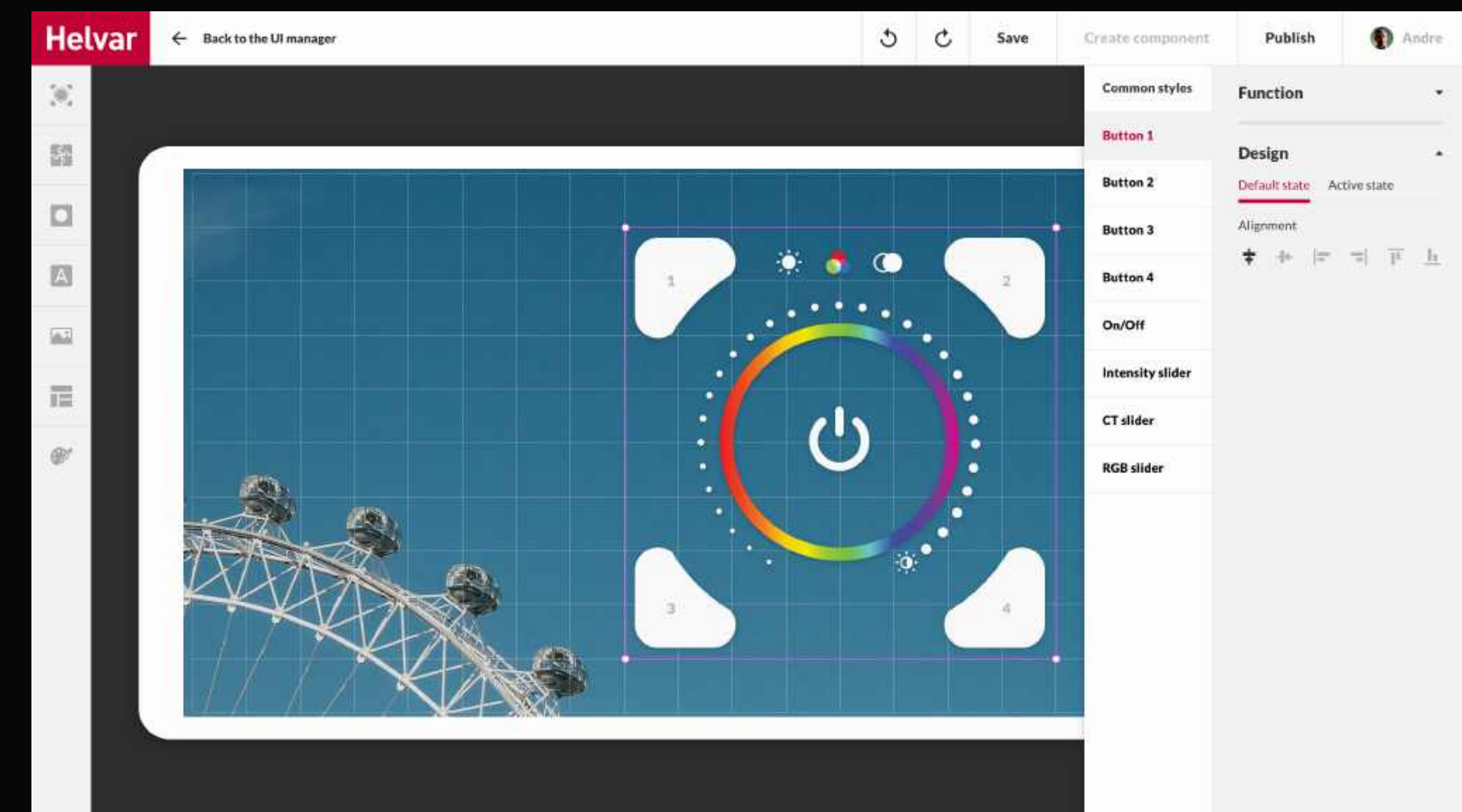


We suggested adding a **Preview area** so that engineers could easily pick a theme that would fit in with the interior of a particular room.

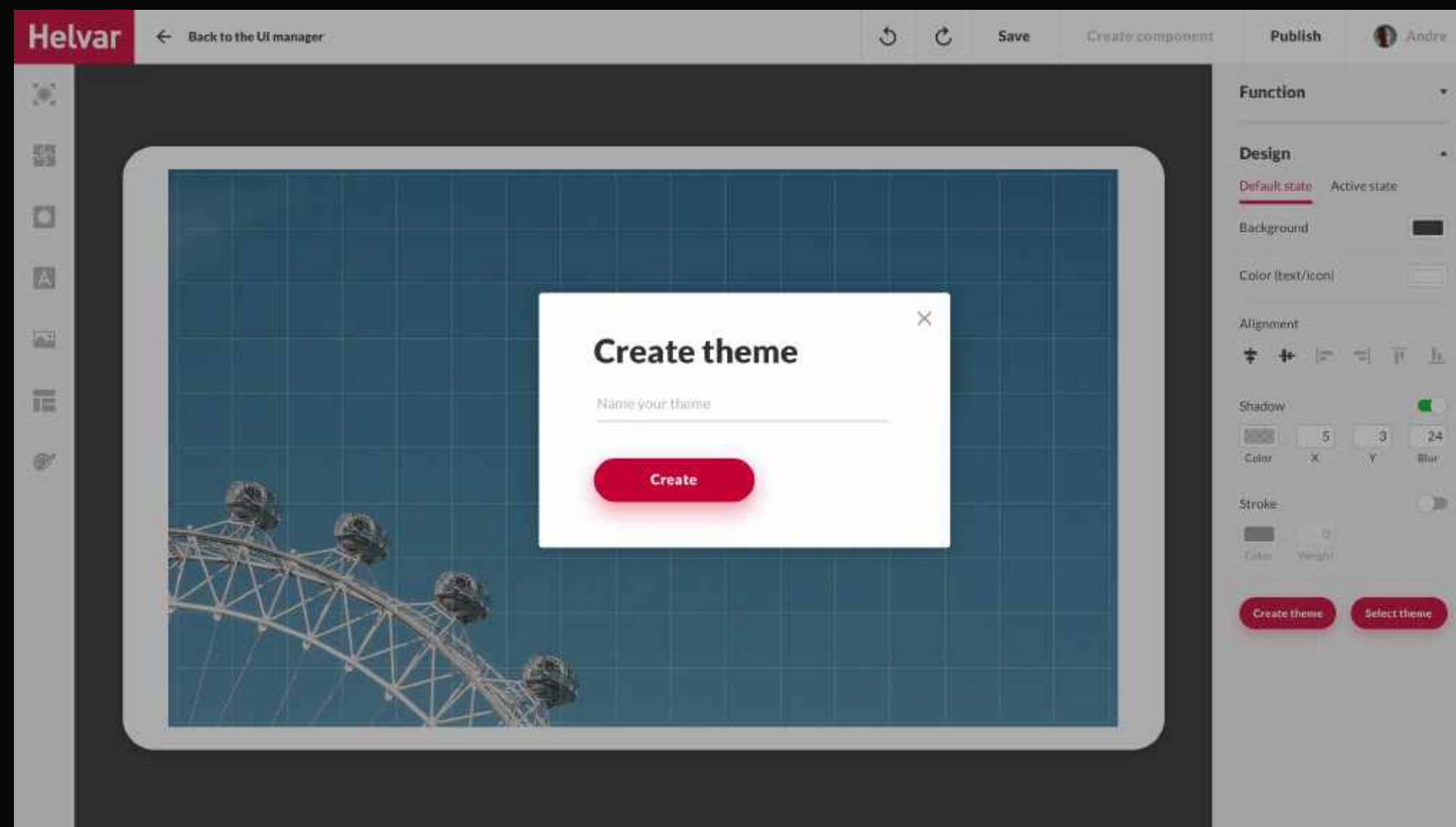
04 Visual design and development

UI Editor

The UI Editor is a part of the **Android application** **targeted at end users** (office workers, hospital patients, tourists in hotel rooms, etc.). Its interface had to remain clear and concise despite the immense number of functions it provides users with.



04 Visual design and development



The trickiest part of working on the UI Editor's design was that it had to be a **fully customizable tool**. We made it possible for users to edit, modify, and change everything, from the general style of the controller, the background, and font styles to fine-tuning each button's function and look.

We stipulated different access levels for the Editor:

■ Basic mode for actual end users

It allows customers to switch between themes freely and add standard controllers and widgets from the library.

■ Advanced mode for building managers

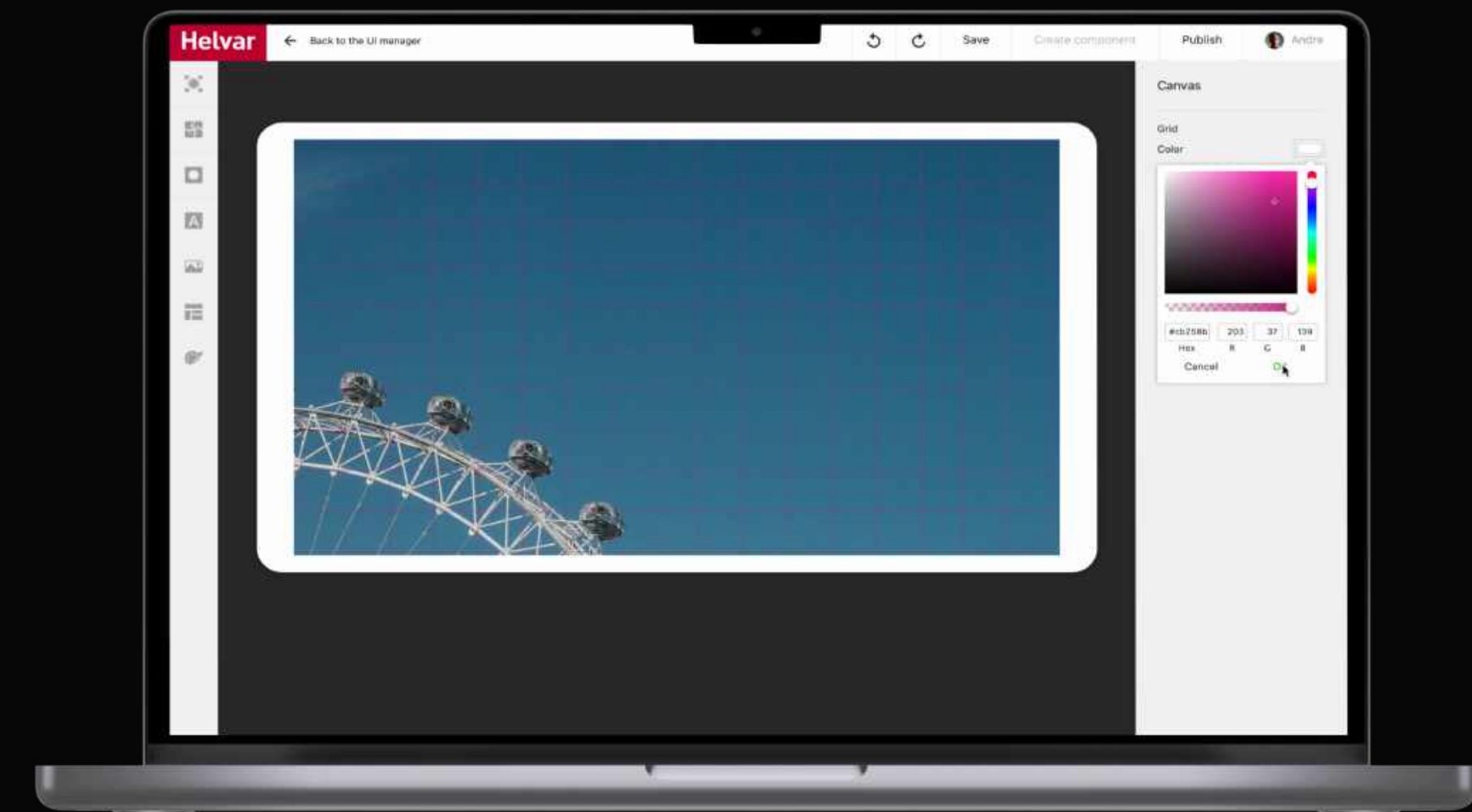
Receptionists in hotels and hospitals, office managers, etc., can modify Editor's interface and change the buttons' layout directly on the tablet. The mode is password-protected, and edits are accepted locally on a specific device.

04

Visual design and development

We designed software with **unlimited customization options to satisfy the desire of Helvar's clients for stronger brand awareness**. For instance, despite providing a plethora of in-built templates that cover various usage scenarios, we went the extra mile to bring boundless customization opportunities to users.

With a tablet in each room, users can not only create their unique theme (e.g., in the hotel colors and with its logo) but also put any buttons needed on the tablet screen and bind functions to them in the way they find the most convenient setup.



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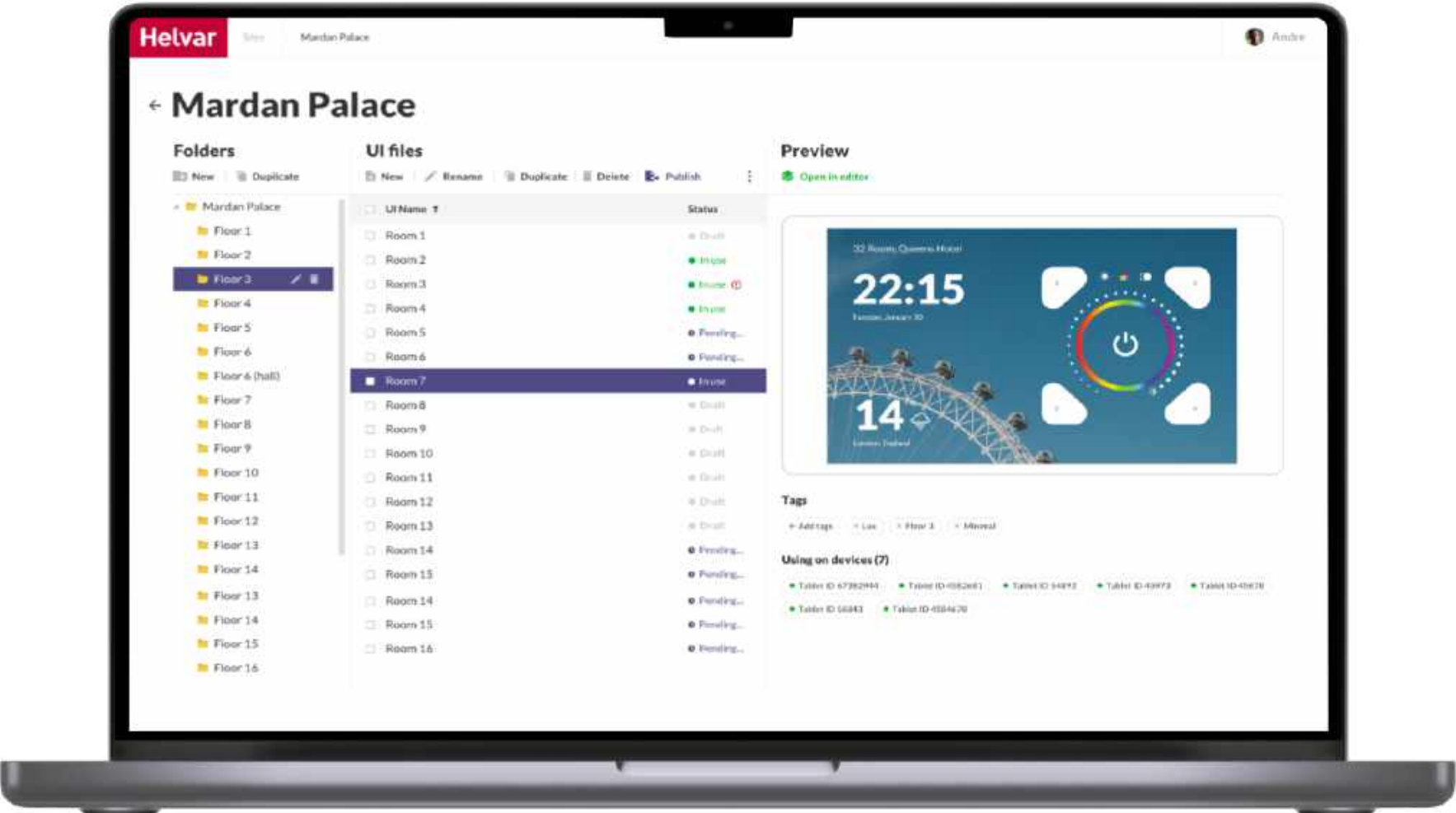
Visual design and development

Our product design and development team kept firing on all cylinders to ensure on-the-dot delivery of both web and Android applications, and we made it.

The web application was ready in two months, and the Android app took one month to build.

The client was impressed by *instinctools' businesslike expertise and keen awareness of the latest trends in software product design. Due to this early success, Helvar felt confident in working with our team for further three projects.

Before / After



Key features



Scalability

We helped create a frontier solution that enables easy digital control over lighting in huge facilities like hotels, hospitals, offices, etc.



Resilience

Crafting such a product allows Helvar to maintain its leadership in the industry. Despite the large scale of the solution, we managed to craft a clear and concise interface to ensure the product will stay robust and relevant down the road.



Customizability

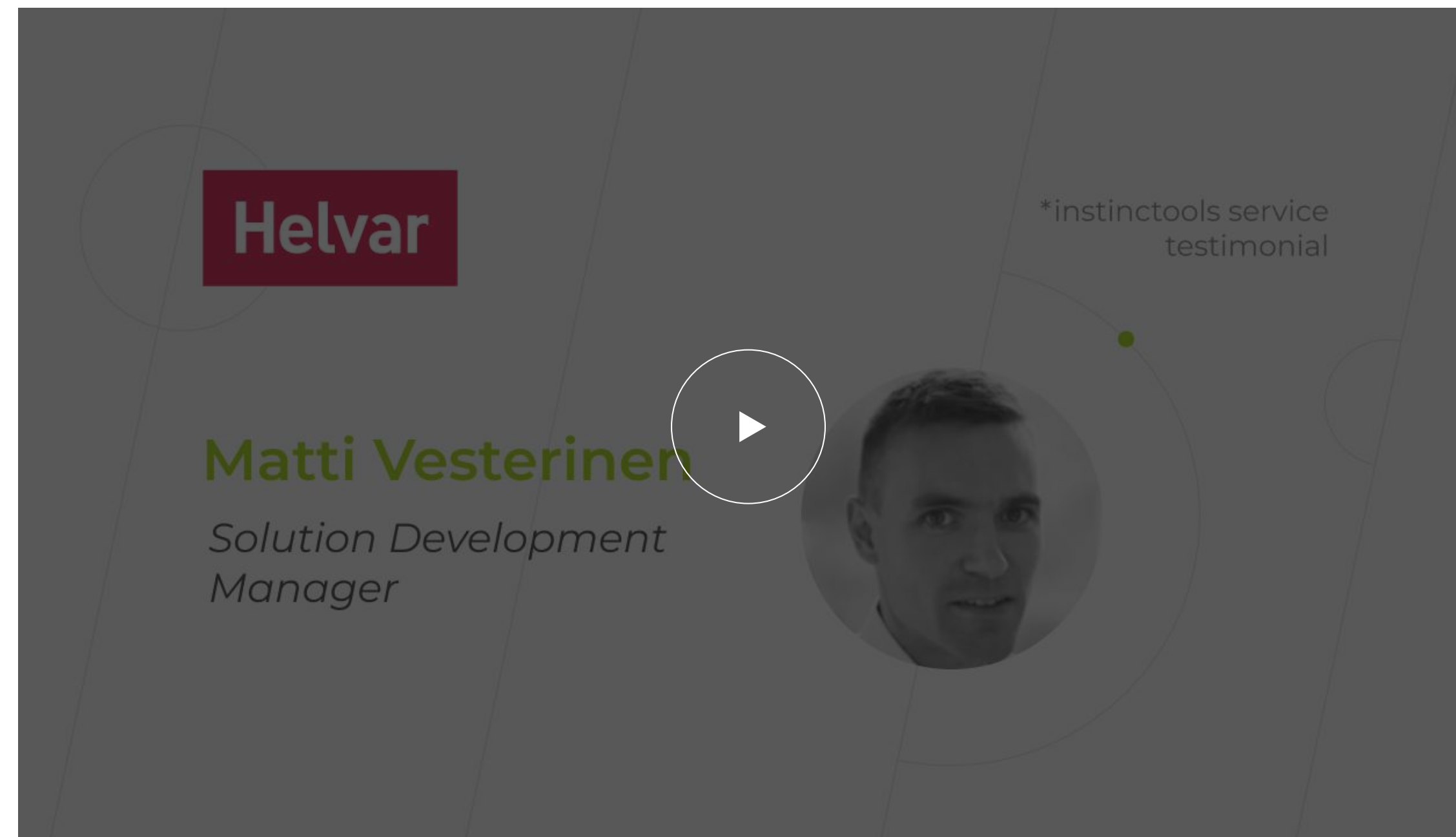
The more end-users the product has, the more configuration options are needed. Helvar's solution provides boundless customization capabilities and the possibility to adjust lighting to each user's needs.

Business Value

- **The very first solution on the market** for large facilities to digitally control intelligent lighting in a room, on a floor space, or in a whole building
- **Reduced installation and maintenance costs** thanks to wireless lighting management
- **User-friendly replacement** of an outdated 924 touch panel
- **90% of the UI can be configured** for the specific application and end user
- **Unique branding capabilities** to bolster brand awareness

Client's testimonial

Matti Vesterinen, as a product owner, sums up the quality of services provided by our team and shares their impressions of cooperation with *instinctools:



Multiplier effect

Putting a premium on a well-thought-out design is a prerequisite for a fruitful outcome in software product development. That's how it works for product companies whose profit depends on customer satisfaction. Design quality directly impacts user experience and, as a result, product demand on the market.

Businesses in any industry, from manufacturing and ecommerce to healthcare, fintech, education and more, benefit from centering around a customer experience.



Putting your end users first empowers you to solve complex design strategic tasks and confidently withstand market disruptions driven by user behavior changes.



Do you have a similar project idea?

Let's innovate together!



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