



A Construction major empowers its Field Managers with technology designed for rugged environments and low-quality networks

Summary

Designed a SaaS solution that allows Project Managers and Foremen to track the real-time progress of construction projects on site. The design incorporates an understanding of the construction site environment and the solution works regardless of the availability or quality of connectivity. The cross-platform design enables developers to work on a single code base for both iOS and Android platforms.

Technology Stack



About the client

Newforma is a software product company providing cloud-based solutions for construction companies and their ancillary businesses. Their solutions enable architects, engineers, contractors, and owners (AECO) to collaborate, collect, and organize data of their construction projects, get detailed progress updates daily, and share reports – all from a single dashboard. Their software is used by over 122,000 users in more than 1,200 firms across the world.

The business challenge

Newforma aspired to provide highly granular data and reports on the projects directly from the site, to its AECO stakeholders. The solution needed to be intuitive and easy to use for Foremen or Site supervisors, factor in the rugged conditions, and be able to work on any mobile device owned by the users.

Data gathered needed to be uploaded into their existing construction management platform for collation, processing, and access/share with authorized users.

Trigent solution

The challenge was to simplify the previous version of the application, enhance the features, and augment the user experience keeping the construction site environment challenges in mind.

Synchronized overview

Trigent developed the cloud-based Project Information Management (PIM) software that allowed multiple stakeholders to communicate and have a unified view of the project.

All stakeholders – architects, engineers, contractors, owners – can upload data related to the project onto the platform. Everyone associated with the project gets a unified status report of the project.

Resilience to network quality and availability

The design centered around the user's life, real-time challenges. Most construction sites have low Internet connectivity or none. With this understanding, the mobile application was designed with zero dependence on network connectivity. Users at the site could use and access reports regardless of Internet access.

Cross-platform tool

The mobile app is developed with a cross-platform architecture. Developers work on a single underlying codebase that is compatible across iOS and Android.



We partnered with Trigent Software for programming support to build the iOS and Android mobile app. The Project Information Management solution that Trigent designed and developed for us has received positive internal and external feedback. We're quite pleased and the users are happy with the app.

Team Trigent is very professional, businesslike and data driven. They've delivered everything on time, with very few regressions. They are always prepared and collaborate with the in-house team to address any issues that arise. We continue to work with them on enhancing features to the app.

Customer experience

The UX of the application is being modulated for different user personas in the construction site or off-site environments. Examples include the Dark Mode option to conserve mobile battery, Voice interactions for hands-free usage.

Contextual information

Users can add any contextual information related to the project to allow other associates to better understand the project.

"Trigent's first mobile application using iOS 14"

Client Benefits

Trigent empowered Newforma to offer an enhanced cloud-based application to its customers that operated in tough terrains despite no Internet connectivity. It simplified their day-to-day work tracking, enabled managing reports, and exchanging live updates of projects.

Key features

- The cloud-based application works without the Internet
- Captures real-time field report for each project
- Streamlines day-to-day resource management
- Produces digital audit trail of the project with the last updated report
- One latest version of the report gets generated for the day
- A cross-platform tool with iOS and Android front end across the web and mobile devices
- iOS 14 compliant

Looking into the future

We continue to work with the client on the ConstructEx web application, enhancing its features and the UX. In view of the construction environment where touch screens are not user friendly, the ability to navigate with voice-enabled features is under consideration.

About Trigent

Trigent is an early pioneer in IT outsourcing and offshore software development business. We enable organizations to adopt digital processes and customer engagement models to achieve outstanding results and end-user experience. We help clients achieve this through enterprise-wide digital transformation, modernization, and optimization of their IT environment. Our decades of experience, deep domain knowledge, and technology expertise delivers transformational solutions to ISVs, enterprises, and SMBs.

We offer end to end consulting services, design, development and managed services across Infrastructure, Cloud, Mobility, BI, Analytics, Product Engineering, QA & Testing, IoT, Big Data, and Artificial Intelligence.