intetics
The Remote In-Sourcing® Company

Mobile App to Control Chemical Instruments from Tablets

Client

The Client is a German technology company that develops, manufactures and distributes laboratory instruments worldwide. Their product lines include instruments for preparation and analysis of chemical solutions. They also provide software and other accessories to make their laboratory technology comfortable, efficient and user friendly.

Challenge

The Client wanted to create a mobile software application to be used on Windows 8 and Android tablets to better control their existing line of chemical analysis instruments. The existing management system for the instruments has become outdated, as it required a single device to be connected to the instruments to manage the analysis of chemical solutions. The existing system was slow and its low resolution made it unattractive.

The Client wanted to create a new mobile tablet application to manage the instrument functions, with new features such as automation, scheduling, remote operation, multi-user access, and ability to operate 3-4 instruments at the same time. They also wanted to include a comfortable user interface with which they could build their brand.

The Client's IT needed more technical expertise to develop the new application and turned to Intetics for help. The new application was to be the starting point for development of other applications for the Client's other product lines. For that reason, the client also required knowledge transfer to their in-house team and possibility of easily modifying the application in the future for their other product lines.

The new application was also to be fully compatible with their existing technical laboratory equipment. The development of the software for this equipment was often not fully documented and added an extra challenge for understanding the client's highly technical product and matching the new mobile software with the requirements of the existing technology.

Solution

Intetics created a team of experienced engineers who closely cooperated with the client's in-house team to complete the new tablet application. Alongside constant design improvement, the Intetics team ensured superb functionality for the new application, as well as an attractive and user friendly interface. Intetics team developed the application for Android and Windows 8 and 8.1 using the multiplatform framework Phonegap. This platform choice allowed the application to be developed quickly as it minimized the amount of code needed to write the

Intetics Co. contact@intetics.com www.intetics.com
Fritz-Vomfelde-Srt. 34, 40547 Düsseldorf, Germany 809 Ridge Rd. Suite 205, Wilmette, IL 60091
Tel.: +49-211-3878-9350 Tel: +1 (312) 625-5669

multiplatform application. Phonegap also made it easier to prepare the application for different platforms in the future, because the same code can be reused.

The client's in-house team and Intetics team stayed in close cooperation with each other through frequent phone and video conferences in order to ensure that that application not only conformed to the design vision, but also met all functionality requirements.

Tools/Technologies used:

- PhoneGap
- JavaScript (Backbone.js, Zepto.js frameworks)
- HTML5
- CSS3
- Java (for creation of PhoneGap plugins)
- C# (for creation of PhoneGap plugins)

Results

Intetics team helped the Client create their new software tablet application that successfully replaced the existing control unit. The application allows easier manipulation of the client's laboratory equipment. It has an attractive design, remote and multi-user access, automatic scheduling and ability to connect to more than one instrument at a time. Due to the included demo feature, the Client has an opportunity to license the product and allow more users to utilize their software. The modern design of the application created an excellent branding opportunity for the client. Moreover, the application was a stepping stone for upgrading the software of the Client's other product lines, which will be carried out by their in-house team in the future – using technical knowledge they gained from working with Intetics.