

WeatherTRAK Mobile

HDS Selects Wintellect and Xamarin for Next-Generation Enterprise 360° Smart Water Management Mobile Application

OVERVIEW

HydroPoint Data Systems is the market and technology leader in Smart Water Management. The company's main product offering WeatherTRAK combines controllers and other hardware with cloud-based applications and services to automate irrigation schedules based on landscape-specific parameters (such as plant, soil, slope and sprinkler type). The goal was to quickly establish optimal irrigation schedules that match the true water budget for each zone of a landscape.

HydroPoint desired to create a cross-platform extension of their existing system that would work on the iPhone and Android platforms, leveraging the Xamarin technology platform. The focus of the effort was to replace an older HTML5/hybrid app with equivalent functionality (but with improved usability and maintainability), and then to further add compelling new functionality. The objective was to provide HydroPoint field operators with a mobile application enabling them to monitor and manage core aspects of the system.

DETAILS

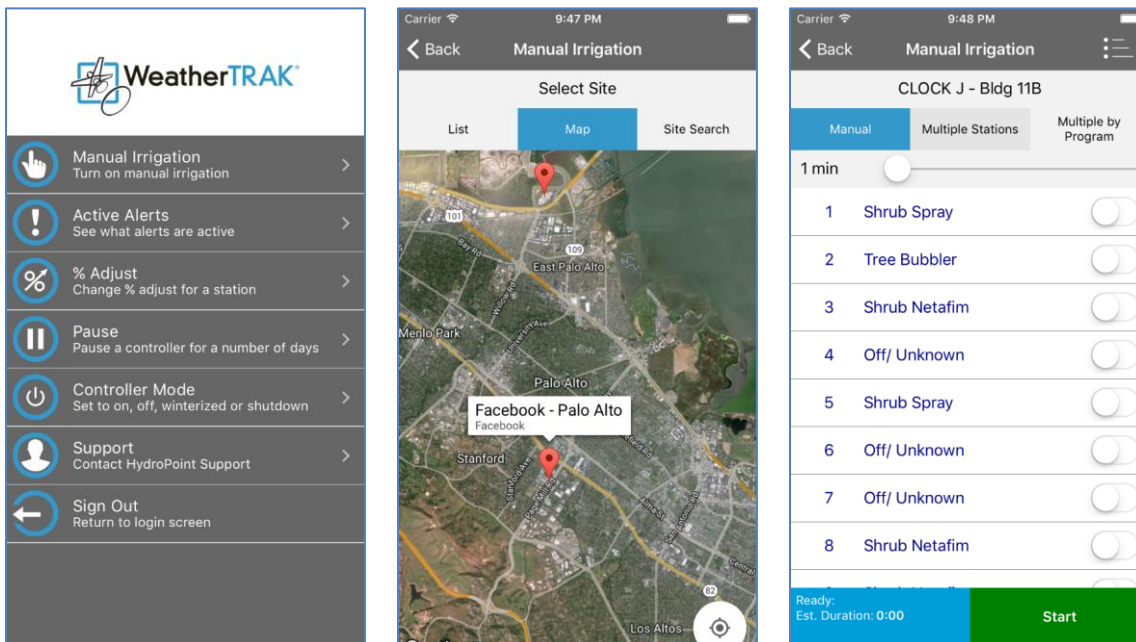
HydroPoint wanted a solution that their existing team of C# developers could easily maintain. At the same time, there was a desire to achieve the performance, as well as the look and feel, of a native application on both iOS and Android.

HydroPoint provided the vision and initial UI design and internal APIs. The Wintellect team of Xamarin-certified engineers then leveraged Xamarin Forms to achieve a level of nearly 90% of code shared between platforms - both for the user interface as well as the API calls. This allowed for greater maintainability of the entire project across all platforms.

While the majority of the application was able to be built using cross-platform shared code, Wintellect was still able to leverage native features of the two mobile platforms thanks to Xamarin Forms support for custom renderers and platform-specific services. WeatherTRAK integrates with native platform features for dialing, email, connectivity detection, geolocation and localization. And in order to support HydroPoint's requirement for a consistent GPS/Mapping experience, Wintellect chose to replace the default Xamarin Forms

Map experience on iOS (which uses Apple Maps) with a custom renderer that utilizes the Google Maps SDK.

The Wintellect team also took advantage of Xamarin's UI testing framework, allowing the creation of test workflows that run on each platform, ensuring that page interaction worked as intended, that errors are quickly found and addressed, and overall resulting in a higher quality application. Finally, to support ongoing product monitoring and improvement, Xamarin Insights was integrated into the application.



WHY WINTELLECT?

HydroPoint needed a partner that was expert at creating enterprise level mobile applications across multiple devices and platforms. A partner with Xamarin expertise was also a key requirement.

- Wintellect is a certified Xamarin Premier Consulting Partner whose staff includes Xamarin-certified multi-platform engineers.
- Wintellect is a recognized leader in software architecture and implementation on the web, mobile, and cloud platforms.

CONCLUSION

If you are interested in more information about Wintellect developer resources or business solutions, please call 877-966-5528, visit our web site at www.wintellect.com or email us at training@wintellect.com.



The solution was developed and implemented quickly within both timeframe and budget. The application was successfully extended to the mobile device space on the iOS and Android platforms. The architecture allowed for the bulk of the code to be reusable and shared across platforms, allowing for easier maintenance and extensibility for the future.

