

AGWORKS BUILDS COMPLEX CROP INSURANCE APP IN RECORD TIME WITH TELERIK UI SOLUTIONS

Background

AgWorks was born in 2010 by a merger between Dreamscape Technologies and iNETJ Communications, specializing in the development and support of crop processing systems. Both companies have extensive experience in the crop insurance industry. AgWorks has successfully implemented and managed crop insurance systems used to process more than \$1.6 billion in annual premiums, supporting all Federal Crop Insurance Corporation approved crop/product combinations in the U.S.

Client



AgWorks designed and implemented these systems using Microsoft.NET web-based technologies, Telerik[®] UI for ASP.NET MVC and Telerik[®] Reporting. AgWorks serves the federally backed crop insurance industry, which consists of only 18 companies nationwide.

Challenge

AgWorks was tasked with building a large-scale centralized web application to meet some very immediate needs of one of its customers. However, most applications tailored for the crop insurance industry take roughly three years to develop. “Our customer needed a basic solution within nine months, and a fully functioning solution within 12-16 months,” said Carl Gideon, Enterprise Architect at AgWorks. “It was going to be a very complex application, and a lot of companies fail trying to develop similar software. We’ve known several companies that spent millions and never rolled out a solution.”

The application has to render intricate screens to account for various crops, specializations, varieties of crop, and state and county policies. Close to 1,000 people use the app, including agents, staff at insurance companies and farmers.

“Typically the agent will talk to the farmer and provide a quote for insurance based on the farmer’s plans,” said Gideon. “The insurance company is the underwriter and in charge of reviewing and accepting the policy and sending it to the government for official approval, while the agent is in charge of entering information, filing claims and on-going policy maintenance. This app would manage all of that workflow. Reporting capabilities were also essential, because the crop insurance industry is so closely regulated.”

Additionally, as crops are planted and mature, the app has to be able to record acres, track the harvest, and record storm data and other information that may affect the crops. It manages premium collection, as well.

Gideon’s team hired 25 developers within three months to work on the solution. “We had to find and adopt a software platform quickly and start working right away.”

Gideon was referred to Telerik® products by a few consultants. “We looked at Silverlight, but we wanted a solution that enabled us to design in pure HTML,” he said. “A solid Grid module was also important for various aspects of the app, such as claims forms, policies, accounting and other processing that is

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Carl Gideon, Enterprise Architect at AgWorks

resource-intensive. Some of the forms in the application are thousands of pages long, and we needed a tool that could handle it.” Gideon’s team selected Telerik UI Extensions for ASP.NET MVC to build the app’s UI because of the overall completeness of the solution. The ASP.NET MVC server wrappers generate the JavaScript and HTML rendered by the view engine in the browser, facilitating communication between the Views, Models and Controllers. They also make use of MVC features such as data annotations, server binding and so on. “All the controls were there,” said Gideon. “Telerik enables us to apply themes and colors and save them as style sheets, as well, which boosts our productivity.”

Solution

Using Telerik MVC extensions, the team met the customer’s tight deadline and was able to launch the first version of the application in only nine months. Another version was released a few months later. “Telerik tools are easy to use, so it was easy to train developers and get them up to speed quickly,” said Gideon. “The toolset is full-featured and consistent. If you learn how to create a dropdown list, the same rules apply for other features, so there’s very little ramp-up.”

AgWorks Converts 1,900 Screens to Kendo UI Framework in Two Weeks

Since the initial software release, AgWorks transitioned the application from the MVC controls to Telerik® Kendo UI® for ASP.NET MVC framework and PhoneGap. “When we started out, we were under pressure to get the app to market so quickly, we decided to freeze the technology stack and not burden developers with constant updates,” Gideon said. “But we knew we’d have to switch gears at some point.”

Telerik eventually transitioned to the Kendo UI framework and stopped supporting the ASP.NET MVC extensions the team used originally, and although there were upgrade paths, they were a few releases behind. Instead, they decided to move the application over to Kendo UI framework, which would also enable them to develop for mobile platforms like iOS and Android in the future.

“We wanted to have a common toolset so developers who normally work in mobile are well supported,” Gideon said. As a result, his team had to update 1,900 files within the two-week release schedule—a major undertaking.

At the recommendation of Telerik, AgWorks contracted with Falafel Software, a custom software development, consultation and training company, to assist with converting the app to the Kendo UI framework. “We had four primary developers start converting the app about a month in advance, then more joined the project. Six of our developers were in Hungary; the team was scattered all over the world,” said Gideon. “Falafel developed the methodologies we used to upgrade the screens and helped to train the team to use them.” The team relied heavily on Visual Studio Team Foundation Server (TFS) for collaborating throughout the project.

To complete the conversion within the two-week release schedule, AgWorks flew out all of the developers to Amarillo, and they worked together in a single location. They managed to convert the 1,900 screens over roughly 3,800 hours of

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development time, with very few issues. “We performed extensive testing, and touched more than 500,000 lines of code,” said Gideon. “Even though we had to work quickly, we had no major problems when we rolled out the upgrade. To be able to do that much that quickly says a lot about the Telerik technology we used and how well it worked.”

Results

Gideon credits Telerik for the team’s ability to develop its highly complex application so quickly. Success with the 2-week conversion from MVC extensions to the Kendo UI framework, he said, further demonstrates the strength of the technology.

“We delivered our first version in nine months—which is unheard of in this industry—because we hired 25 of the best people in the industry and gave them really good tools,” he said. “Then, we converted the entire app to a new UI in just two weeks. I don’t think we could have met our deadlines if we didn’t have easy-to-use HTML-based UI toolsets to work with. Telerik was a key component in our success.”

Telerik has also enabled AgWorks to keep up with rapidly changing technology needs. “It used to be that technology became obsolete every two years, but now you have to update it at least every six months or be left in the dust,” said Gideon.

“Telerik solutions help us keep up with this pace of change, and quickly incorporate new technologies such as mobile, to meet our customers’ needs.”

Telerik Helps AgWorks with Evolving Mobile Strategy

AgWorks’ mobile strategy is evolving, and Telerik technology will help facilitate new mobile apps for both insurance agents and growers. “We first developed a Java-based app for Android about 3.5 years ago,” said Gideon. The app can be used in the field for recording damage, taking photos, filling out and submitting forms, and other key tasks. “At the time, Apple didn’t offer printing solutions, and agents need to be able to print forms from the app. But we’ve since updated the app and plan to deploy a new version built with Kendo UI framework and PhoneGap soon.”

Gideon’s team is also developing another mobile app using Telerik technology—a real-time app designed for the farmer. Using his phone, a farmer can log into the app to view policy data, claim status and other information related to his crop insurance. The app is compatible with iOS and Android and empowers the grower with self-service capabilities.

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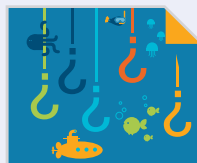
Carl Gideon, Enterprise Architect at AgWorks

“Mobile is a new area for us,” said Gideon. “We’re starting to use the Kendo UI framework more in our development efforts, and its support for responsive app development will help us make powerful crop insurance applications accessible directly to the farmers.”

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