Siemens PLM Software Expands Their Target Market with Mobile and Xamarin

Highlights

• Leveraged nearly all app logic across iOS and Android platforms

• Targeted Android and iOS using one codebase, dramatically reducing development cost

• Reused feature code from desktop solutions in mobile apps to create a differentiated solution
About Siemens PLM Software

Siemens PLM Software, a business unit of the Siemens Digital Factory Division, is a leading global provider of product lifecycle management (PLM) and manufacturing operations management (MOM) software, systems, and services, with over nine million licensed seats and more than 77,000 customers worldwide. Headquartered in Plano, Texas, Siemens PLM Software works collaboratively with its customers to provide industry software solutions that help companies everywhere achieve a sustainable competitive advantage by making the innovations that matter come to life.

Going Mobile

Siemens PLM Software recognized that many steps in the product development lifecycle don’t take place in traditional office settings. Designers and engineers are on the move, working with colleagues in different locations, visiting shop floors to optimize manufacturing processes, and working with customers in the field. They need tools that are easy to use and work on mobile devices such as tablets and smartphones. Additionally, many other types of users—from residential contractors to field salespeople and homeowners to hobbyists—could benefit from Siemens PLM Software drawing innovation.

Siemens PLM Software decided to extend its sophisticated drawing technology to new markets and scenarios, including appealing directly to consumers. “We wanted to expand our reach past specialized users who need very expensive and complex software,” says Ken Hosch, Director of Innovation, Research, and Strategy, Siemens PLM Software. The goal was to embody Siemens PLM Software drawing technology in mobile form. “Mobile apps open up new markets for our solutions,” Hosch adds.
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Innovation Meets Experience

The software development team chose to develop Catchbook with Xamarin, allowing them to build on their existing Windows development skills to create apps for iOS and Android. This let the team use code directly from their desktop applications in mobile apps while still providing native speed and functionality. They could leverage the same codebase across platforms while delivering a rich user experience.

Hosch stated that his team chose Xamarin in part because it allows developers to code in the environment that is most comfortable for them: “We’re very good at developing for Windows and Linux. Xamarin gave us the ability to target Android and iOS without having to learn how to write a native app for each one. It also provides consistency, because developers don’t have to switch between C# and Java or other languages if there is an issue.”
Reduced Development Costs with Code Sharing

Another major benefit that Xamarin offered Siemens PLM Software during development was the ability to reuse code across mobile platforms, significantly reducing the cost of developing the app. Siemens PLM Software estimates that they were able to share 75% of the user interface code across platforms, with 25% devoted to platform-specific renderers. “Establishing and maintaining development expertise is very expensive and having multiple codebases also increases management overhead,” said Hosch. “With Xamarin, we’re essentially writing one codebase to target all mobile platforms. We get Android, Windows, and iOS versions at a fantastically reduced cost.”

Additionally, the team was able to use Xamarin and Visual Studio to link with native C++ code from their desktop applications, including curve recognition and other sophisticated algorithms that represent their key differentiator in the marketplace. Not only does this make the mobile app richer and further reduce development costs, it also frees developers to focus on creating a strong user experience and workflow.

High Performance Apps, Rich User Experiences

Giving users an immersive, in-the-moment drawing experience requires a high performance app that responds smoothly to user inputs. Hosch stated that the team has been pleased with the performance of apps created with Xamarin. “The responsiveness is great. As the amount of digital ink on the page increases, that performance becomes critical.”

Using Xamarin, Siemens PLM Software has been able to create the drawing experience they envisioned. The app gives users a more direct interaction with their work than the traditional mouse-based CAD experience provides.

“Recently, a member of my team went to a customer site to demonstrate the app. He traced over the image of a turbine blade and a high performance race car to create drawings in Catchbook. These are complicated shapes, but they looked really good,” said Hosch.

ABOUT XAMARIN

Ship high quality apps faster with Xamarin, now a Microsoft company. Together we have a complete enterprise mobility solution to build, integrate, test, and monitor iOS and Android apps. We’re helping enterprises such as Kimberly-Clark, Cinemark, Alaska Airlines, Coca-Cola Bottling, and more accelerate their mobile success and quickly deliver high performance, high quality, fully native iOS and Android apps. We’re your trusted partner at every step—from mobile strategy to lifecycle best practices. Build your mobile future with Xamarin. For more information, please visit xamarin.com, read our blog, and follow us on Twitter at @xamarinhq.

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