

Building Cross-Device Cross-Platform Mobile Applications with PowerBuilder

Appeon Mobile – A sneak preview

BY ARMEEN MAZDA



This is a very exciting time to be a PowerBuilder developer. If you attended TechWave you may have felt the positive energy from your fellow developers. Appeon was featured in the plenary session and several breakout sessions, covering mobility, cloud, and UI modernization. Specifically, Tony Orsini of Accenture demonstrated their PowerBuilder SaaS solution deployed with Appeon 6.5 to the Microsoft Azure cloud. Don Clayton of Intertech Consulting showed a real-life call center application that sports a modern Web user interface just by using Appeon 6.5 and PowerBuilder. And you may have seen the prototype of Appeon Mobile, which will enable PowerBuilder to deploy to virtually any mobile device, including iPhone, iPad, Android-based mobile and pad devices, and so on.

There's a lot going on in the world of PowerBuilder but mobility seems to be on everybody's minds these days. After all, there's a reason why Apple is worth more than IBM, why Google invested so much into Android, and why Microsoft is trying to revitalize its mobile offering. Nearly everybody these days has a smartphone. Mobile is a force to be reckoned with, and much like the Web transformed ways of doing business, working, and living... mobile is driving another major shift. At Appeon we understand this and so we are investing heavily to develop a mobility solution for PowerBuilder.

In this article we will provide a sneak peak of Appeon Mobile as it was demonstrated at TechWave 2011 in Las Vegas. Of course we won't be able to show you the live demonstration that we did. However, we will provide you with screenshots as well as share with you the key points that were communicated in the plenary and DEV3 breakout sessions. Specifically, you will learn what Appeon Mobile is, what it will enable you to do, and when and how you can get your hands on it.

Product Description

Appeon Mobile (just like Appeon for PowerBuilder) is an add-on to PowerBuilder. While Appeon for PowerBuilder enables you to deploy your projects as Web

applications on Windows PCs, Appeon Mobile enables you to deploy your projects as mobile applications to *virtually any mobile device and OS*. It's used in the same fashion as Appeon for PowerBuilder. For those of you who are not familiar, you simply code in PowerBuilder (using DataWindows, PowerScript, painters and property sheets, etc.) and Appeon takes care of the rest. Ongoing maintenance/enhancements of the application are performed in PowerBuilder. A free evaluation version of Appeon for PowerBuilder is available on www.appeon.com if you'd like to familiarize yourself with our toolset.

With Appeon's Mobile plug-in for the PowerBuilder IDE, you'll be able to compile your PowerBuilder projects into database-driven mobile applications. These applications

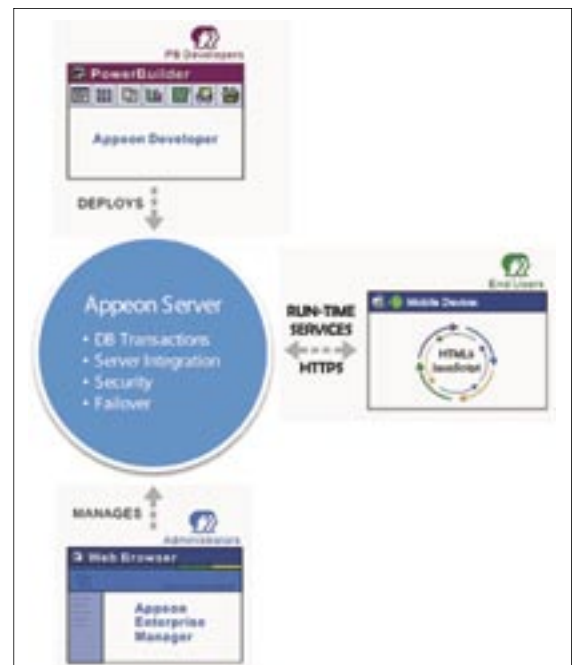


Figure 1

install as native mobile applications on iOS and Android mobile and pad devices (a pure HTML5 version of the mobile app is available to extend to other devices). The mobile application communicates with the Appeon Mobile Server, which installs to any leading Java server or .NET/IIS. The Appeon Mobile Server provides connectivity to the enterprise database, Sybase Unwired Platform (SUP) Mobile Business Objects (MBOs), PowerBuilder NVOs deployed as .NET assemblies, and Web Services.

Although there is a server-side component in the application architecture, the mobile application will feature offline capability for occasionally connected usage. Synchronization of data is completely handled by Appeon and there's no need for the developer or user to do anything fancy. In order to deliver maximum performance and not waste bandwidth during data synchronization, the mobile application will also feature data compression and data caching.

Key Product Features

Drum roll... and the top 10 features of Appeon Mobile are:

10. Supports PowerBuilder 9.0 – 12.5
9. Works with most leading commercial RDBMS, including Sybase, Microsoft, Oracle, and IBM
8. Speeds up mobile data transfer via data compression and device-side caching
7. Allows for offline usage in “occasionally connected” situations
6. Eliminates the need to manage a local mobile database (such as SQLite) and synchronization
5. Secures your mobile data via encryption during transfer and on the device
4. Consumes PowerBuilder NVOs, Sybase Unwired Platform MBOs, and Web Services
3. Reuses many existing DataWindows, PowerScript, SQL and Stored Procedures
2. Requires only PowerBuilder programming skills and IDE
1. Generates mobile applications that can be accessed from virtually any device and OS

Core Technology

Appeon Mobile is leveraging the core technology and in fact many of the components of Appeon for PowerBuilder. The Appeon Server, Appeon Enterprise Manager (AEM), and Appeon Developer are largely the same. Appeon will re-implement the Appeon Web Library (currently an ActiveX control) for the mobile platform. This library essentially acts as a PBVM for the application. And the HTML/JavaScript output will be upgraded to HTML5 and adjusted for compatibility with Safari/iOS, Chrome/Android, as well as FireFox and Internet Explorer.

Appeon's Mobile architecture will resemble the architecture of the Appeon for PowerBuilder product except that the Web application will be replaced with a mobile application. Figure 1 illustrates the key components of Appeon Mobile, where they reside, and how they work together.



Figure 2: Car Loan Calculator – Calculation Screen



Figure 3: Car Loan Calculator – My Loans Screen (View)



Figure 4: Car Loan Calculator – My Loans Screen (Delete)



Figure 5: Car Loan Calculator – Payment Schedule Screen (BMW)

We made a conscious decision to leverage the Appeon for PowerBuilder product as much as possible. The reasons were numerous. First and most important, Appeon will be able to bring to market a mobile solution in very short time that you can be assured will work well. Second, it makes learning the tool extremely easy, especially for thousands of existing Appeon customers. Last, it simplifies deployment and administration of the Appeon Server for companies that wish to use both Appeon for PowerBuilder and Appeon Mobile.

Appeon Mobile Demo

Using only PowerBuilder, Appeon built a car loan calculator for a mobile form factor with a typical mobile navigation. The car loan application was automatically deployed as an HTML5-based mobile application using a prototype of Ap-



Figure 6: Appeon Mobile Roadmap for 2012

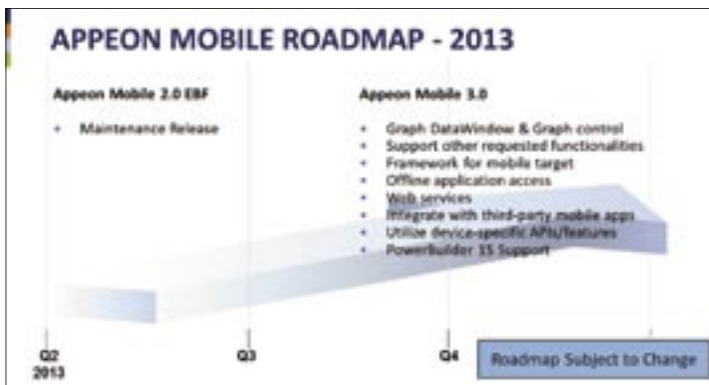


Figure 7: Appeon Mobile Roadmap for 2013

peon Mobile. It was demonstrated on the iPad 2 live at TechWave 2011 in Las Vegas. Although not demonstrated, the application was tested and certified on the iPhone 4 and the Android-based Samsung Galaxy S.

The following are screenshots of the actual mobile application we demonstrated. The application has a first home screen that calculates monthly loan payments and total loan payments. Figure 2 features a FreeForm DataWindow, EditMask, and CommandButtons.

Once a loan is calculated it can be saved and accessed from the My Loans screen. Figure 3 features a FreeForm DataWindow that contains multiple objects (emulating typical iOS control) and CommandButtons.

From the My Loans screen the saved loans can be deleted by clicking delete (see Figure 4) or the payment schedule can be viewed by clicking the arrow (see Figure 5). Figure 5 features a Grid DataWindow, EditMask, and CommandButtons.

Beta & Availability

Appeon Mobile is not currently on the market. It's undergoing R&D and what has been demonstrated is a prototype. Appeon will subject the product to a rigorous beta program before officially releasing. The beta program will be open to the public and is scheduled to begin in Q2/Q3 2012 timeframe. You may sign up for the beta by sending an email to marketing@appeon.com and requesting to be added to the beta email list.

Product Roadmap

The product roadmap depicts the features, schedule, and how Appeon plans to evolve the product over time (see Figures 6 and 7).

However, since Appeon Mobile is still undergoing R&D the features and schedule depicted in the product roadmap are subject to change. We do understand that this information is crucial for your mobility plans and we have taken every effort to make this as accurate as possible.

Conclusion

Being able to build cross-device cross-platform mobile applications with PowerBuilder is a game changer. In fact, it puts PowerBuilder ahead of other tools on the market. What tool can enable you to produce Win32 desktop applications, WPF desktop applications, .NET Web applications, Java Web applications, native iOS mobile applications, native Android mobile applications, and HTML5 mobile applications all from essentially one set of code? The future is bright, and we hope you will join us to make Appeon Mobile the best mobile solution on the market. ■

About the Authors

Armeen Mazda was a key member of the initial team that founded Appeon and is currently the CEO & President. Armeen has worked with Sybase and PowerBuilder technologies since 2000 and served various roles in Appeon, including Product Management, Business Development, and Operations. Armeen is a graduate of the Haas School of Business at U.C. Berkeley and holds 5 U.S. patents in the area of Rich Internet Application (RIA) technologies.

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