



Meet Glenn Patterson—Senior Applications Director

October 14, 2014

Mobile ERP, Sage 100 ERP, Sage Products, xkzero Products

By Julie Downey

To effectively create mobile apps, a development team must be backed by technical proficiency, astute analysis of user behavior, and attention to client goals. Senior Applications Director Glenn Patterson provides this trifecta of traits to xkzero, and is one of the company’s driving forces of innovation.



Glenn says, “My approach is to produce a high quality product that is consistent and useful, and meets the clients’ needs. There are no limitations.”
xkzero

knocked the roof off the industry ceiling when entering mobile ERP app territory.

Search our site

Categories

Accounting (28)

Best Practices (38)

Events (37)

Industry News (20)

MicroAccounting Offerings (9)

"It was a huge investment, but something we committed to taking on well before anyone else in the Sage space did," Glenn says. "Making a mark with mobile apps that integrate with ERP systems requires mastery of programming and design for not only the mobile platform, but also with the web and the individual ERPs," he says.

>Glenn is committed to keeping up with today's ever-emerging technology space. He says, "It's not like 30 years ago, when you could specialize and be a database administrator, or a COBOL programmer." Staying sharp and relevant often requires the tenacity to boldly enter unfamiliar terrain, such as when Glenn faced an operating system crossroads.

His deep programming roots lie in Microsoft-based language, yet he was tasked with building [iSales 100](#), an iOS-based sales app for Sage 100 ERP users. He explains, "They are different developing environments. When we first encountered Apple-based language, its syntax was quite foreign to us." Glenn was concerned that if he committed to striving for fluency in the Apple-only language called Objective C, he would need to invest time that might slow down the production process and even interfere with hours allocated for other projects. He found an effective strategy, though, in Xamarin.iOS (formerly MonoTouch), which essentially maps all the code created in the MS system, and translates it to work with Apple.

Even when unrelated to a particular project, he likes staying abreast of new developments and problem solving methods. He says, "I'm always looking at current tools and evaluating which ones we should use." Lately, he is impressed with the ubiquity of Javascript. He says, "Javascript is becoming a first class language. It has matured over the past few years to the point where it can be used to code not just web pages, but also when programming the server and mobile devices."

User Interface Design (UID) and User Experience Design (UXD)

Mobile ERP (6)

News (37)

Newsletters (2)

Reporting and Intelligence (15)

Sage ERP Document Management (2)

Sage Products (126)

Sage 100 ERP (87)

Sage 500 ERP (32)

Sage ERP X3 (33)

Sage HRMS (16)

Support (30)

xkzero Products (19)

Sign up for our newsletter

Receive a bi-weekly digest of our blog articles.

Your Name

"I enjoy both UID and UXD, and Dan Norris, our Marketing Director, does a lot of the graphic design; He has an eye. I give a lot of input, too. We corroborate to ensure we ultimately follow business rules and meet management objectives."

User Interface Design: When writing software, Glenn says the first order of business is to enable functionality, which requires designing the "interface." UI design considers the quickest and easiest ways to present options to users. Choices may include selecting meaningful icons that don't require explanation, dividing tasks into digestible steps, and guiding users to preferred actions such as "Save" or "Create New Entry."

User Experience Design: The "experience" refers to a user's flow of movement throughout the app. People are accustomed to moving through web sites and software, so the familiar path patterns drive interface navigation expectations. Glenn's strategy is to follow a "visual, tactile flow," and keep it simple.

In his design, Glenn says, he anticipates the ways people might veer from planned paths and break the app. He says, "It's like defensive driving. If I put three buttons on the screen, I'm inviting people to hit all three at once."

"It's simply human nature that they would do that. Design can lead behavior, and open up doors to abuse a program. I must make the apps 'abuser friendly,'" Glenn says.

Designing for Mobile vs Desktop:

"There are certain mobile paradigms that are different from the desktop. For example, since there is no mouse, when designing an app for a mobile device, you can't have a hover function," Glenn says. Conversely, some options exclusively apply to handheld devices, such as swiping. The design principles also vary. "On mobile devices," he says, "screens should go no

(required)

Your Email

(required)

Your Company

(required)

Interests

Send

Recent blog posts



Choose Your Hassle: Back Up Data Now or Deal with Data Loss Later
June 5, 2015

more than 4-5 pages deep or people will forget where they started. Also, there is a much smaller form factor.

You can't put everything on the screen at once because you can't see it."

Glenn adapts his approach when creating a mobile app for people who are accustomed to using it on a desktop. People get used to particular functionality, and he finds ways to make a seamless transition to mobile. In the case of Sage 100 ERP (formerly MAS 90/200), "When a user enters numeric data on a desktop, the cursor goes right in front of the decimal point. None of this is native to iOS. I wrote 200+ lines of code to make a control that would behave in a way that long-time users expected."

xkzero Apps

Glenn has played an integral part in building the xkzero apps that are all designed to integrate with Sage ERP solutions. The list of apps includes [GetX](#), [iSales 100](#), [EBM 100](#), [xkzero Mobile Commerce](#), and [xkzero Transportation Management](#).

[GetX](#) is a search engine for Sage 100 that "provides Google-like search functionality that everyone is used to nowadays, yet isn't (native) to Sage 100. It is very fast and highly customizable. Once customers have used it for one or two searches they can't imagine using the ERP or accounting system without it," he says. "I tell you I think GetX is the most valuable, most underutilized product, which builds on top of Sage 100 ERP. I wish everyone had it," Glenn says. As for another popular app, he explains the origin of [iSales 100](#), "It was inspired by a client's need to replace a Windows-based mobile app. We started fresh with a whole new concept."

Technical & Customer Needs: One of the requirements for an enterprise mobile app is getting the data onto the device. "The app has to be able to talk to the back-end. To do this we had to create web based data transmission back and forth between the app and the back-end. I had to come up with a way of implementing all of it."

Glenn's solution was to write the business rules in Sage 100 ERP, and build the web services using Open Source



General Ledger Journal Reversa Now in Sage 100 ERP Version 2015
May 28, 2015



How to Create User-Defined Fields in Sage 100 ERP
May 28, 2015



Favorite Enhancements in Sage ERP Version 2015
May 26, 2015



Sage 100 ERP Version 2015: User Resource
May 26, 2015

packages. “Creating our own web services puts us in control of the entire development process so we are able to adapt to almost any customer requirement.

This is one of the things we do at xkzero—rather than seek at the fastest and cheapest way to satisfy a customer need, we look for ways we can leverage and build on solutions as the user’s app criteria changes and evolves.” The first iteration of iSales 100 provided customers with basic functionality, such as tracking contacts, conducting sales orders, and entering quotes. In response to client input, xkzero has added features such as invoicing, credit memos, and the ability to filter data.

The development team initially created [xkzero Mobile Commerce](#) in close collaboration with a client looking to disrupt their distribution channel, automating processes that previously had been manual. They used agile software development methodology, which highly involves the customer—the person who really needs his thing to work. This approach incorporates a lot of communication into the design, with all stakeholders making frequent decisions and steering the progress.

“This is a short, iterative process,” Glenn says, in which the developers and client agree on short-term goals for a time period such as two weeks, often referred to as sprints. One example might be creating a screen where one can look up a customer’s address, and pop it up on a map. At the end of 14 days, when it should be functional, the client and developers review the progress. “Early on, you are able to pivot and make adjustments,” he says.

Historically, software development has been a waterfall process. “This meant you design all the details, code everything, test, then fix, and you’re done,” Glenn said.

In the case of xkzero Mobile Commerce, Glenn says, “Using the agile process was very successful with this project. We wrote the app in a short period of time with a great deal of functionality. We went live on the date the client requested and never looked back. I’m very proud of that.”



xkzero Transportation Management is the ERP integration to Echo Global Logistics's web-based services. Echo is a bulk freight consolidator, using Less Than Truckload (LTL) shipping methods to give smaller companies the shared buying power similar to that offered by Echo's founders' ever-popular consumer product, Groupon. "There is no shipping solution for small and mid-market distributors that quite compares. xkzero Transportation Management seamlessly brings Echo's system into the ERP, making it that much more appealing to the customers," Glenn says.

iOS versus Android "Apple is always going to be there. It's a safe bet that people will get their hands on it. When incorporating new mobile applications into business practices, companies will likely need to purchase hardware anyway, so we didn't feel it was a barrier to entry to restrict our app to iOS only," Glenn says. Designing apps for iOS is a more efficient use of development time. "If an app works on iOS, it'll work on all iPhones and iPads," he says. On the contrary, Android devices have an array of specifications, such as screen dimensions and functionality varying from one manufacturer to another. These discrepancies can lead to lengthy development and testing cycles. Glenn says, "At this time, we are putting our efforts into developing the best software possible for iOS."

"iOS has opened up a wide variety of ways to make use of computing power in a small format," Glenn says.

Glenn occasionally encounters user interface (UI) design challenges when programming an app for the iPhone and iPad, to solve for screen size variables. When adapting iSales for iPad, he utilized the width of the screen to the user's advantage by creating a split view of both the list and details. Glenn says making the leap to learn how to develop apps for iOS was well worth the effort, as Apple products provide a great opportunity for xkzero to serve client needs.

Read more about Glenn Patterson: The Man Behind the Apps

- Android
- Apple
- Echo Global Logistics
- GetX
- iOS
- iPad
- iPhone
- iSales 100
- Meet the Team
- mobile app
- Sage eBusiness Management 100
- user experience
- xkzero
- xkzero Mobile Commerce
- xkzero Transportation Management

 Share this post

 About the author

Julie Downey

Content Marketing Specialist, MicroAccounting and xkzero
Julie writes articles for our blogs, and gathers relevant material from ERP and mobile app experts, and edits contributors' stories. She brings her experience as an adjunct media arts professor and long-time teaching artist into our content development process, inspiring others to express ideas. In addition to bloggizing content, Julie manages several of our social media accounts.

 Related posts



General Ledger Journal Reversal Now in Sage 100 ERP Version 2015

May 28, 2015



How to Create User-Defined Fields in Sage 100 ERP

May 28, 2015



Favorite Enhancements in Sage 100 ERP Version 2015

May 26, 2015



Sage 100 ERP Version 2015: User Resources

May 26, 2015



Purchase Order History: New in Sage 100 ERP Version 2015

May 26, 2015



Sage 100 ERP Payroll Enhancements to Manage ACA Requirements

May 22, 2015

Contact Us

Phone (toll free)
855.876.3773

Corporate Headquarters:
801 E. Campbell Road, Suite
330
Richardson, TX 75081
Phone: 214.800.5500

Chicago Office:
1111 E Touhy Ave, Suite 550
Des Plaines, IL 60018
Phone: 847.305.2810







Ohio Office:
P.O. Box 80645
Canton, OH 44708
Phone: 330.437.1536



Services

- Business Process Optimization
- Consulting
- Programming & Development
- Project Management
- ERP Product Training
- Ongoing Support
- Technical Services
- Account Management

Recent Blog Posts

-  Choose Your Hassle: Back Up Data Now or Deal with Data Loss Later
June 5, 2015
-  General Ledger Journal Reversal Now in Sage 100 ERP Version 2015
May 28, 2015
-  How to Create User-Defined Fields in Sage 100 ERP
May 28, 2015
-  Favorite Enhancements in Sage 100 ERP Version 2015
May 26, 2015
-  Sage 100 ERP Version 2015: User Resources
May 26, 2015
-  Purchase Order History: New in Sage 100 ERP Version 2015
May 26, 2015

