QRS Music Introduces Major Scale Mobile Innovation and Makes Player Pianos Magical Again

The player piano was a technological marvel in 1900, when QRS Music Technologies was founded – one of the first magical examples of automation to come into restaurants, saloons, and homes, programmed with holes punched into a roll of paper that made a clockwork piano play itself.

QRS still manufactures paper piano rolls to founder Melville Clark's innovative 88 note tracker bar standard for pneumatic player pianos. Meanwhile, the technology for distributing music has advanced from paper, to cassette tapes, to CDs, and now the Internet and cloud services connected to mobile devices. Since 1986, QRS has been able to turn any piano into a player piano with its PNOmation kits. And with QRS PNOScan, an invisible optical sensor strip installed under a piano's keys, a pianist can unobtrusively record a performance or new composition as a musical instrument digital interface (MIDI) file for later playback.

Industry:
Consumer Goods

Solution:
Kony Mobility Platform

"With all the innovation around music, nothing comes close to the experience of a real piano. At QRS, our goal is to make player piano ownership more relevant, exciting, and enjoyable today than ever before," says QRS Music Technologies President and Chief Executive Office Thomas Dolan. "We want to lead the piano and keyboard market by offering innovative digital capabilities with the warmth, ambiance, and craftsmanship of a real acoustic instrument."

To further their mission of delivering expertly crafted instruments with the latest technology, QRS turned to Kony for help keeping the customer experience of controlling a player piano as simple and enjoyable as possible.

QRS has multiple platforms with unique uses that each demand a standalone mobile solution. To realize the benefits of these offerings, Dolan understood these applications need to be accessible and look and feel as if they were one, and not cobbled together from the website.
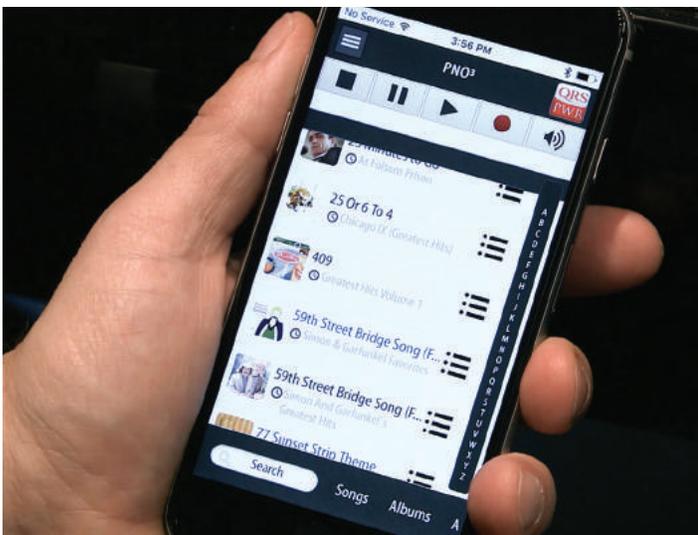
"We have a lot of different things going on behind the scenes, but customers don't want to know any of that – they just want

their piano to play," he says. "Mobile allows us to unify all the platforms and give the customer one easy-to-use place to go." With a mobile app, customers can connect to their piano and start it playing – with vocal accompaniment or even video, if desired. Touch another button to launch a music lesson. Or sit down at the piano and have it record your new composition, seamlessly transmitting that recording to a cloud service. And celebrity recordings make it possible to experience the closest thing to Elton John or Harry Connick, Jr. performing in your living room.

"Kony's approach to mobile takes care of all of this. Now an acoustic piano, traditionally seen as an old-fashioned nicety is transformed into an entertainment experience relevant to today's customer."

Making It Simple

Creating that simple experience was not simple, at first. In recent years, QRS has pioneered many new offerings with the introduction of video and background music that can play along with the piano, including both celebrity performances and interactive music lessons. In 2010, QRS introduced Wi-Fi connectivity, allowing users to control a piano using an iPad or similar device. This mobile capability opened up possibilities for downloading music, video, and software from many sources, in addition to telling the piano what to play or adjusting the volume. All of this also had to be integrated with the cloud services QRS

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President and CEO
QRS Music Technologies

uses to track its customer and financial records.

Dolan became concerned that the company was overloading customers with too much technology – and seeing an increase in technical support calls to the company and its dealers as a result. The basic value of a player piano is acoustic, not digital, he says. "The ultimate form of home entertainment is a real instrument and a real artist playing in your home – the three-dimensional sound of a string vibrating against a sound board. It just fills the air, and it fills you." Any new technology QRS adds needs to enhance that experience, not distract from it, he says.

Piano dealers also needed a simpler way of demonstrating PNOmation on any of the pianos in their showroom. For dealers to convince customers the technology was easy to use, they had to find it easy to use themselves.

Working with the Kony Mobility Platform, QRS is using mobile technology to put the focus where it belongs, on the music. When QRS first demonstrated piano control using an iPad, the user interface

was a web application, running off a web server embedded in the piano controller. To access the piano, a user first had to manually enter its IP address – and the fact that wireless routers dynamically reassign IP addresses frustrated customers and flooded QRS and its dealers with technical support calls.

The first project Kony and QRS partnered on was the creation of the QRSFinder, a piano finder mobile app which automatically searches a wireless network. In a home or restaurant where there is a single piano, the mobile app connects to it automatically. At a piano dealer's showroom, the app displays all the pianos available to choose from. Either way, there is no messing around with IP addresses.

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Meanwhile, dealers appreciate the "wow" factor that comes with showing buyers how easily a piano can be controlled from a mobile device. With its latest apps, QRS is making sure the mobile experience keeps pace with its own innovations in piano technology – proving that the player piano is as relevant and as magical today as it ever was.

What Customers Want

"For some customers, their piano has been in their family for generations. It's not a piece of furniture. The mobile app makes it easy for them, and that's what customers ask for," says Dr. Christian Blüthner-Haessler of the German piano manufacturer Julius Blüthner Pianofortefabrik GmbH. And for others who purchase a fine piano for their home, they either don't know how to play or are just learning. QRS technology lets them "enjoy the piano from the first day."

"The whole reason they purchased a piano was to enjoy the acoustic experience that having a grand piano in their house creates," says Steinway dealer Kevin Rindlisbacher. "By having the application where they can simply hit the button, it's completely easy for them to do, and they love it."

Kony helped QRS deliver its first true mobile apps for iOS and Android. While the apps can access web content and applications from QRS and its technology partners, it's much easier to direct consumers to an app store than it is to instruct them to create a web page shortcut on their device.

By offering a mobile app, QRS can now provide remote mobile access and an upgrade path to mobile for their 100,000 plus musician customers, giving QRS an edge over their nearest competitor.

The Kony Mobility Platform also lets QRS

keep up with the rapid pace of change in mobile technology. With a small staff and continuous flow of updates, QRS had sometimes been caught unawares by changes in mobile operating systems, such as an Android update that caused application icons to disappear from customer screens.

"With so many different uses and systems to integrate, doing it in house would take us years and not ensure we are current with the apps and devices that exist.

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– Aaron Yost
Lead Software Developer
QRS Music Technologies

Kony is ahead of the game. They know when the updates are coming, and they've adjusted for the updates," Dolan says. That means customers are spared a negative experience and dealers don't have to manage those support calls. "The Kony platform takes all that worry away and we can focus on what we do best," he says.

From Simplicity to Innovation

An important part of Dolan's business strategy is boosting the sales that come from music and referrals, rather than outbound marketing tactics like catalogs, postcards, and email blasts. With the mobile app, the cost of traditional marketing is removed with more immediate sales.

But instead of just selling, QRS wants to make sure customers enjoy its products. "If you don't play the piano, it's just a piece of furniture sitting in your living room," says Todd Brown, a district sales manager for QRS. By making it easy as possible to set the piano playing, QRS makes it more likely that customers will tell their friends and show it off to visitors. "Customers – either consumers or dealers, who have to train the consumers – are really blown away. To push a button on a mobile phone or smart

watch and get it to play the piano, their reaction is – I have to have one of those."

Having overcome basic usability challenges, QRS is delivering smoother, more enjoyable customer experiences that blend all the supporting backend business and media server applications. One of the

most significant new features is automatic notifications that pop up on a customer's device when new music is available.

By notifying customers of new promotions and music, customers are engaged in their piano and the investment they have in it. The mobile app provides a simple way of notifying customers of improvements, new music, and promotions.

Like everyone else, player piano owners get distracted by everything else going on in their lives. QRS wants them to take time off to enjoy their purchase, and mobile notifications are a great way of reminding them. "The more they play it, and the more they talk about it, the more they enjoy it – and word spreads and feeds on itself."

Finding the Right Partner

Aaron Yost, the lead software developer who developed the software for piano control, says QRS had a vision of what it wanted to deliver but did not have the required mobile software development expertise in house. "What we know is pianos," he says. "We looked for a mobile developer that would work with us, and Kony was the only solution that would take our idea and make it come to life."

Although QRS got programming help from Kony consultants, Kony Visualizer also lets him add new features going forward, Yost says. "We weren't looking for just a one app solution."

Developing with Kony tools makes it possible for him to work with a single codebase but still generate apps optimized for all the different mobile platforms and web browsers. "It gives us the complete user experience we hadn't quite had yet. Now there's one way someone can control their piano, and it works on any device. Whether you have a watch, a phone, or a tablet, it works the same way," Yost says. Behind the scenes, the apps integrate with the enterprise software and cloud services QRS uses to manage customer accounts. In addition to taking advantage of standard integrations Kony built for other customers, QRS had Kony build custom ones specific to its business, such as integration with the streaming video services that can be synchronized with piano playback.

Revolutionizing the Industry

At the 2016 National Association of Music Merchants (NAMM) tradeshow, QRS launched the first wearable mobile app for the piano and keyboard market. The QRSPNO Wearable App for the Apple Watch, which focuses on notifications and the unique playback control required by the music instruments, was further honored with the 2016 Keyboard Super NAMM Award.

Dolan knows that while wearables represent convenience and tracking, it also represents something intangible. "The Apple Watch app screams the seriousness we take in our product and the potential of wearables," says Dolan. "We can cater to the specific needs of the instruments we control and we can innovate using the features enabled through the API and Kony's mobile platform."

With its rich history and focus on innovation, QRS is revolutionizing the player piano industry. "We were the first ones to bring live background music along with the player piano. We were the first to offer SyncAlong, where you can play a CD or DVD and the piano plays along. And now we're the first with a mobile app for the Apple Watch," says Dolan. "If you imagine where technology is going down the road, we'll be there first."