IBM

Global Music Company Delivers Top Hits with e-business

Not many people go to a piano store to buy music, and music stores don't typically carry diskettes for Yamaha Disklavier pianos. This was a problem Yamaha Artist Services faced as they tried to discern the best way to distribute music for their Disklavier digital acoustic piano. How did they solve their dilemma? By creating a global jukebox, of sorts — www.GlobalJukeBox.com. Except this jukebox doesn't take quarters — not yet, anyway.

> *"IBM's e-business solutions made it easy to get started because its products are powerfully built, yet cost-effective."*
>
> *—Eric Johnson, Director of Artist Services, Yamaha*

The Web site has added variety as well as a cost-effective solution to the distribution of Disklavier music, which, until now, has been available only through CDs recorded, produced, and distributed by Yamaha. Since its introduction in 1983, Disklavier sales have been driven by high-volume businesses and music professionals who are able to justify the significant cost of acquiring and maintaining a library of recordings. Eric Johnson, director of Artist Services at Yamaha, sees e-business as a way to bring value to the Disklavier and boost sales into the mainstream home market. But the best part of the solution has to be that now the "store" is always open and accessible to anybody, anywhere, having Internet access — all with no driving, no calling, no lines, no shipping, and no waiting.

An added bonus is the exposure for music artists who deserve distribution but previously weren't available through Yamaha's limited in-store service. "One of the things that is always on my mind is how to add utility to the relationship that Yamaha has with professionals," Johnson explains. "My feeling was, if we could come up with a way of expanding the reach of a particular artist's music to Disklavier customers, that would be added utility."

This added utility also includes a broader base from which to interpret decision-support data from customer interactions with the Web site. By running the new project though IBM's DB2, Yamaha has acquired the potential to collect complex data on its customers, down to the musical attributes that a particular customer prefers.

Application	Online catalog and distribution of piano music for Disklavier
Business Value	Increased sales and customer satisfaction
Software	Lotus Notes Lotus Domino Lotus Domino.Connect IBM DB2 IBM Net.Data IBM DB2 Audio Extender
Hardware	IBM ThinkPad

Yamaha uses the power of Lotus Domino to boost music sales for their Disklavier piano.

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e-business

Perfect Harmony with IBM

Yamaha Artist Services approached IBM business partner Vision Associates, a New York-based consulting firm providing business intelligence solutions and services with IBM server-based products. Not having its own Internet services department, Yamaha found initial start-up costs were a critical factor in determining how to develop the project. Vision Associates captured and replicated Yamaha's WAVE (audio), MIDI, image, and text files stored in Lotus Notes, using their own Domino Web servers. This data was then reproduced into DB2 for Windows NT using the NotesPump feature of Domino's database integration component, Domino.Connect.

IBM's Net.Data, a web-linking tool packaged with DB2, generates pick lists, so the site is automatically updated along with the database, making HTML coding unnecessary. Also, since Net.Data automatically adds the relevant file extension to any file downloaded from the Web, only a Web browser is necessary on the user end.

Disklavier owners can go to the Web site and search for new music, say, in the key of G. When they find a piece by an artist that interests them, they can play a WAVE file to see if it's really what they're looking for. If they like it, they order it, download it to the IBM ThinkPad computer attached to the piano, and play the music instantly. Another option is that the music can be played live on the Disklavier while being accompanied by vocals downloaded from another field in the database, creating a mix of live piano and recorded CD-quality lyrics.

"IBM's solutions made it easy to get started because its products are powerfully built, yet cost-effective," Johnson says.

Name That Tune

But this Internet catalog isn't exactly your daddy's old jukebox. Have you ever had a certain phrase of a song stuck in your head, but you can't remember the title, the artist, or anything else about the song? With the Disklavier catalog, the phrase is all you need to know. Vision Associates President Shawn Bay says that the power of Notes and Domino bring quick retrieval of MIDI and WAVE files as well as text and pictures of the artists. All of this information is replicated in DB2 object files within a relational database, which can be searched by artist, by music style, by description, and even by that incessant little phrase you can't get out of your head.

The Hits Keep Coming

The long-range success of the Global Jukebox can be measured only by charting and analyzing activity at the Web site. MIDI sites generally require extensive support, receiving thousands of hits each day. Recognizing this, Yamaha plans to add new search capabilities gradually. Bay reports the system has proven surprisingly efficient, thus far, in its ability to allow complex searches of MIDI files for particular instruments because of its index-creating ability.

As traffic at the site expands, Yamaha expects to launch new search options and provide increased memory and CPU to accommodate its growth. Although currently running well on its current system, the application is planned to move to a larger server in the future to utilize the increased internal bandwidth without any changes to the application.

Bay concludes: "With Vision Associates' experience in mining and analyzing numeric data and IBM's advanced support for new data types, Yamaha has entered a whole new world for music and other products that can be represented digitally."

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IBM Marketing Representative or IBM Business Partner.

Visit our Web sites at:
www.ibm.com/e-business
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For more information on Yamaha, visit their Web sites at:
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