Maharam

BASIS Customer Success Story

The year 2002 marked a momentous occasion for Maharam – the celebration of its centennial anniversary. Founded in 1902, Maharam's fourth generation family business is America's premier source for commercial interior textiles. They design and sell textiles to architectural and design community and to office furniture suppliers. Today, the New York-based company generates annual sales revenues in excess of $90 million. In order to maintain revenue growth and technological leadership in its industry, Maharam needed the ability to provide remote access to sales and inventory data. BASIS provided Maharam with this remote access capability through BBj and its thin client architecture.

Maharam specializes in custom upholstery, wall, panel, window covering, and healthcare textiles for commercial interiors. Their software must provide services specific to their industry, such as ensuring that all rolls of fabric come from the same dye lot. Their highly customized software further facilitates a random restocking system that maximizes storage space. The solution includes integrated e-mail and faxing capabilities. Maharam's inventory, accounting, sales analysis, and miscellaneous utilities comprise a system that contains over 2000 programs. "In order to keep costs down while improving service levels, the computer system needed to increase efficiency by providing remote access to inventory and order information," says Brad Bell, BBj in-house developer and end-user at Maharam.

Because Brad has over 22 years of programming and development experience, Maharam depends on his

Figure 1. Example of Maharam's Old Menu.

Figure 2. Example of Maharam's New Menu Using BBj.

knowledge and expertise to make their CHUI to GUI transition as smooth as possible. "What first got me interested in BBj was 'GUI on Linux'. A GUI environment offers benefits such as not being constrained to an 80x24 screen, point-and-click in fields and grids, application standardization, quick training, and faster application development. In other words, the GUI environment opens the door to a myriad of possibilities that Maharam did not have with a CHUI-based system," Brad explains. "Using UNIX/Linux for running applications is the only choice because it is faster and more reliable. Maharam developed a great enterprise system, but it lacked a modern front end until BASIS released BBj."

BBj offered other benefits besides GUI on UNIX for Maharam, such as delivering remote access to inventory and order information. "BBj provided the added bonus of allowing us to make our application Web-enabled, instantly. This was a big one for us. Although we created a decent Web portal for selective application(s), we can now port our applications to the Web and the process of doing so is instantaneous - right out of the box," exclaims Brad.

Maharam's conversion from PRO/5 to BBj 2.02 in October 2002 presented an opportunity to re-think many of the company's applications. For example, "By taking advantage of what a GUI application versus a CHUI application allowed us to do with less code and by changing certain procedures actually cut down the number of programs by a third," says Brad. "We took our existing infrastructure and improved it with BBj."

"BBj's object-oriented programming and other changes such as callbacks and process events certainly simplified the re-writing of our package. BBj is just simpler to use and the new controls make it fun to work with", states Brad. The new controls also empower the developer and extend the functionality of the application. For example, Maharam's application benefited from the use of BBj's Timer Objects, Namespaces for Inter-Process Communication, and Popup Menus. "Furthermore, BASIS's new licensing structure allowed flexibility for our users to migrate from PRO/5 to BBj. Being able to move only some of our users to BBj was invaluable," continues Brad.

As part of Maharam's CHUI to GUI migration strategy, Brad writes all new programs in BBj. If an existing program requires
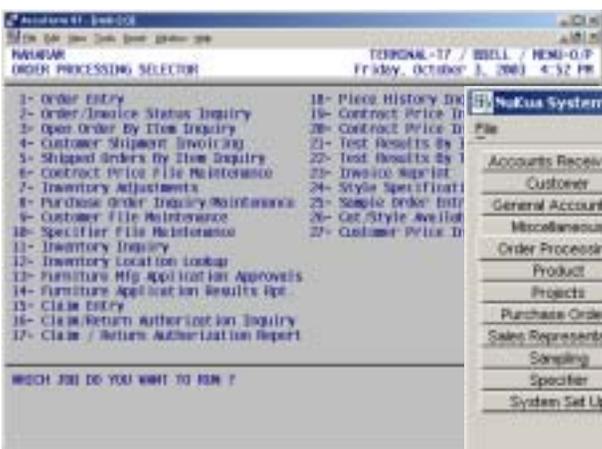
changes, he rewrites the entire program in BBj instead of altering the existing CHUI code. The screenshots below illustrate how BBj improved the look and feel of Maharam's user interface.

In the past, Maharam's Web offerings were limited to PRO/5 and the Basic Web Utility (BWU). The interface used HTML with the PRO/5 programs providing the logic on the backend. While Maharam still uses the BWU as a Web Portal, after the conversion to BBj, Brad took advantage of BBj's ability to run any program, CHUI or GUI, as an applet in a Web browser. This paradigm greatly simplified the application deployment, because it no longer involved HTML front ends to the application and anyone with a browser could run the application without the need for extra software such as a terminal emulator. The single point administration model allows the systems administrator to update the application on a centralized server, and all of Maharam's 300+ clients get the latest version the next time they run the application. This is a necessity since Maharam has 40 satellite locations connecting via a Virtual Private Network (VPN) or via Windows Terminal Services. With locations and subsidiaries as far away as Australia and Hong Kong, traveling to each location just to perform a software update is impractical.

Brad is experimenting with a Java Web Start based deployment in-house. Utilizing a common HTML starting page, the remote clients automatically download the requisite Java Virtual Machine (JVM) if necessary. The HTML starting page then redirects the browser to a Java Network Launching Protocol (JNLP) page. JNLP is a Web-centric delivery protocol and application environment for Java-based applications, and provides the mechanism by which the client machines download, cache, and launch the BBj application published on a Web server. "Web Start also allowed us to deploy some internal applications as 'Web based'. We have some users that wanted direct access to our expense report entry program without going to the trouble to log in to the system, or clicking on the program on a menu. With Web Start, I can just put a link on our intranet and let the end-user run the expense program directly with no more effort required than clicking on a Web link. To the end-user, it's a Web based application that took little time to develop," says Brad.

Perhaps the most exciting innovation currently underway for Maharam is the ability to use a Pocket PC in combination with a BBj application to scan barcodes on fabric swatches. The Pocket PCs run the BBj program via a Terminal Services Client, and the attached barcode scanner is responsible for retrieving barcodes from samples and providing that information in the form of keyboard input to the BBj program.

Under the current system, a customer walks around the showroom looking at fabric samples. After finding the samples they like, the customer physically brings the swatch to the sales desk in order to process their order. If the customer wants to take the swatch back to their office, then Maharam must replenish the showroom sample. "To simplify things, we are currently developing an applet that runs on a Pocket PC that reads a barcode on the back of a sample in the showroom. The customer uses the Pocket PC to simply log in to a terminal service and then scans the barcode on the back of the fabric sample. Then, the customer clicks a button to complete their order. By the time they get back to the front counter, the completed order is already printed and awaiting pickup. This whole process saves an incredible amount of time and effort for Maharam and helps us to deliver improved service levels to our customers," says Brad.

Figure 3. Pocket PC Running a BBj Application Scanning Barcodes on Fabric a Swatch.

After being a ready-prompt programmer for years, Brad easily made the switch to the BASIS IDE. "A program that used to take me a day to write now takes me one-third of the time using the BASIS IDE," says Brad. He enjoys using the IDE's syntax checking feature, which provides color-coded highlighting and saves him valuable programming and debugging time. He also likes the IDE's compiler because it returns automatic linking to the source of any reported errors, enabling him to jump to the exact line in the source code that produced the error. A few of the BBj 4.0 upcoming features that Brad looks forward to using are the BBjInputD object and the improvements to the JUL() function that allow for string dates and masking.

For more information about Maharam, visit *www.maharam.com.*