

Bisco Gets More Bang for Their BBx Buck



Like so many companies who have been a longtime BASIS customer, Bisco Industries (www.biscoind.com) found themselves wanting, “needing”, to modernize the capabilities of their highly functional but dated-looking 20+ year old application. Bisco’s BBx® application provided the utility necessary to meet their basic needs, but the application no longer met their growing desire for newer features and functions. Bisco staff members wanted a more modern graphical interface that would be easier to navigate with either a keyboard or a mouse, and better data access via reporting tools. Management was concerned about security and the potential risk of depending on a single server system.

When Brian Stover took over as IT Director, Bisco tasked him to either find another solution or make the existing application meet the new requirements. Brian quickly met the challenge to learn about the newest BBx generations. Adding to what he gleaned from past BASIS roadshows, he tapped into a variety of resources that included the Java Break video library (links.basis.com/javabreak), presentations from TechCon sessions, and BASIS personnel to create a technology roadmap for Bisco.

The Plan and Execution

After weighing the options – whether to move forward with BASIS technology or to a new system – Stover realized it was simply a matter of logic. Bisco could achieve their goals with BASIS’ expanding technology better and faster than introducing an outside solution and without the concomitant risks to the business. More importantly, the BASIS solution was more cost effective, required less development, and came with an easier learning curve.

BASIS’ flexibility allowed Bisco to transform the application in a carefully staged approach that had budgetary, scheduling, and risk-reduction benefits. This also enabled Bisco to immediately begin to deliver on the goal of bringing greater productivity to the workforce.



Laurence Guiney
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Bisco began working with BASIS Professional Services to establish some initial goals for transitioning from PRO/5® to BBj® and beginning to develop with Barista®. To meet those goals, they defined three steps; **1)** upgrade to current BASIS BBj technology, **2)** migrate to new three-tiered architecture to replace the 10-year old single-tier system, and **3)** explore Barista usage in a pilot project to replace the old CUI lookup system with a more efficient GUI lookup system.

Upgrade to BBj

By converting the old PRO/5 system to BBj, Bisco was able to move to three-tiered architecture. In addition to the scalability and reliability advantages of three-tier architecture, introducing BBj thin client with Java Web Start allowed Bisco to eliminate the additional cost of a third party terminal emulation product and allowed their users to run concurrent sessions without needing to increase the user count of their existing license. Using BBj’s zero deployment capabilities also allowed for quicker and easier deployment of new users, which is critical for this growing business. BBj provided Bisco with access to BASIS’ extended Structured Query Language (SQL) support, GUI form design capability, and support for AES 256-bit security. Should Bisco decide they want to deploy new mobile GUI applications in a browser, BBj’s browser user interface (BUI) will also make this possible.

Migrate to Three-Tiered Architecture

At that time, Bisco Industries’ application and data server consisted of a single five-year old T5220 SUN Solaris server. While this system was sufficient to run their application, there was no onsite redundancy and any type of server issue could bring this multi-million dollar company to a temporary standstill.

With guidance and assistance from the BASIS Professional Services team, Bisco implemented three-tier architecture consisting of four Dell PowerEdge R620 servers with multi-core 2.70 GHz processors and solid state drives. One server now acts as the data server with the other three configured as load balanced application servers. The desktop users access the application with BBj’s thin client, deployed over their intranet via Java Web Start. Stover explains, “*I have found BASIS support to be number one. Our move from a single Solaris box to a three-tier Redhat solution, the conversion from PRO/5 to BBj, and development with Barista would have easily taken twice as long without the Professional Services from BASIS. BASIS continues to help us avoid the pitfalls that are associated with such a move. We have found that we can always get our question answered in a timely manner even when working with the European group. I don’t think those guys ever sleep.*”

Bisco Industries is a premier distributor of electronic components and fasteners used for production in aerospace, communication, computer, fabrication, industrial equipment, instrumentation, marine, and military industries. Their mission is to be their customers’ sole supplier of electronic components and fasteners by being a local presence, providing unsurpassed customer service and one-stop-shopping.

Bisco employs nearly 400 employees at 45 locations strategically located throughout the United States, Canada, and Mexico to ensure fast delivery and availability to their customers. Bisco’s global expansion plans include entering the European market. www.biscoind.com

Three-tier architecture provides Bisco with increased flexibility, maintainability, reusability, and scalability. For high-availability purposes, Bisco will be adding a second database server soon to complete their high availability cluster and add additional robustness to their enterprise.

Transition Using Barista...With Sprinkles

To make Bisco's transition from CUI to GUI faster and more efficient, they chose to use Barista for their GUI development. The first phase replaced an old character-based lookup system with a new graphical lookup as shown in **Figure 1**.

"...frees up one person to get the daily receiving process done..."

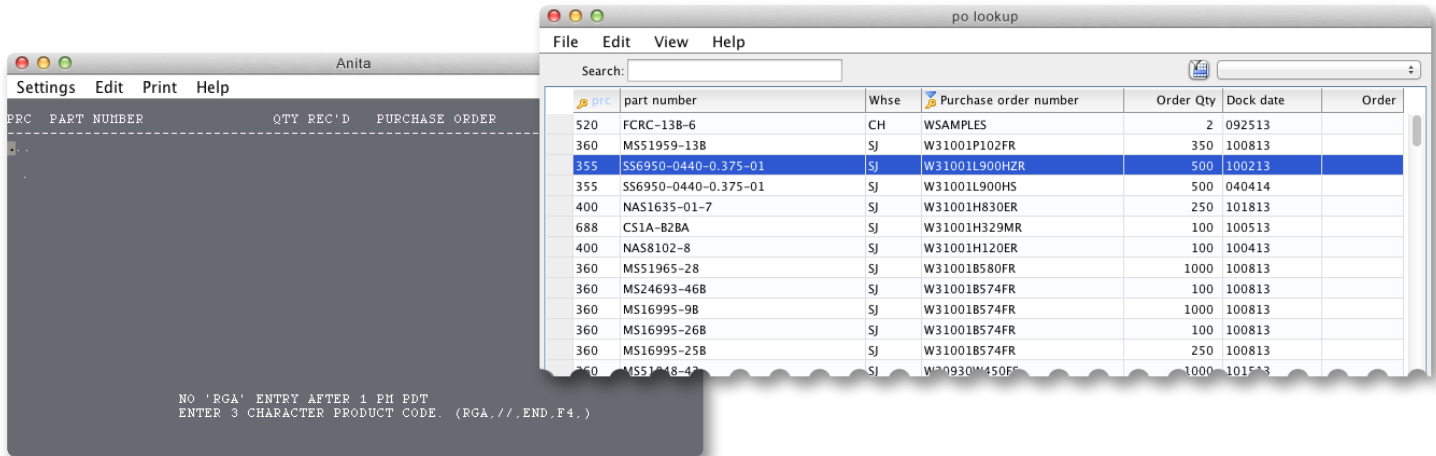


Figure 1. Comparing the Receiving look-up in the old CUI with the new GUI version

Bisco's new Barista version of the generalized lookup system – the Z Menu – provides their users a graphical lookup system to sort, filter, and apply wildcard searches to lookup customer or buyer information. **Figure 2** shows the CUI and new GUI version of the Z Menu lookups.

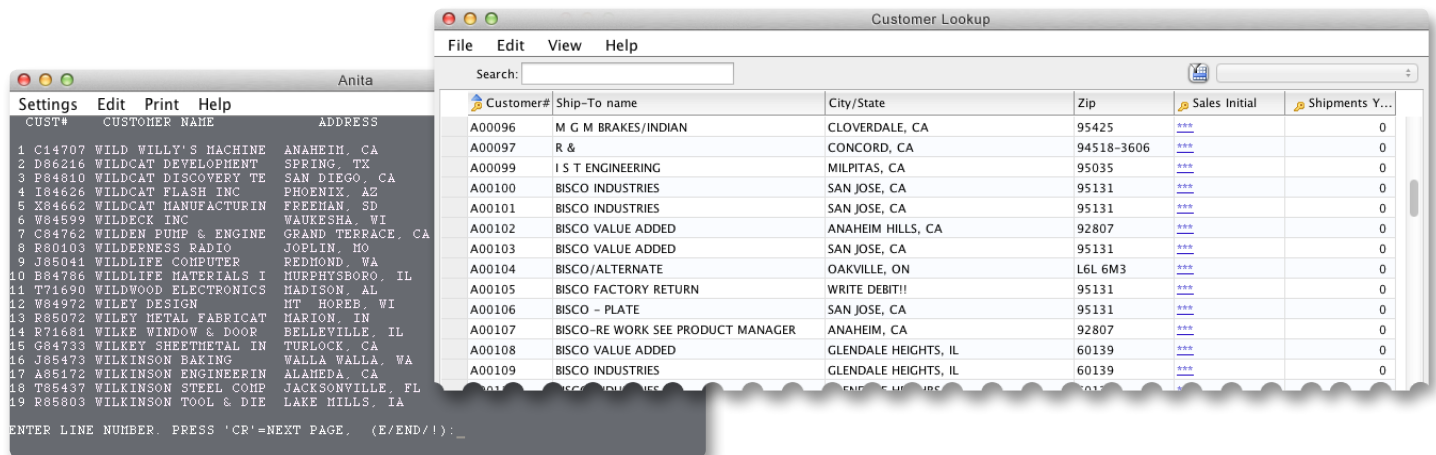


Figure 2. Comparing the old Z-Menu lookup screen in CUI with the new version in GUI

According to Mark Wright, lead developer on Bisco's migration to GUI, "The new receiving lookup has made the function of receiving in the warehouse much quicker. The warehouse staff is able to lookup the 'Purchase order number' by PRC/Part#, Vendor#, or warehouse just by clicking on the field they want to search and even use a wildcard '%'. It has become a standard feature all departments are now looking to have." Wright continues, "The old receiving screen would require the users to use four screens to have the same function as the one Barista grid lookup. The time savings for just one of our larger warehouses frees up one person to get the daily receiving process done, down from four people to three."

Wright goes on to describe the completely new functionality that Barista made possible with its easy-to-use rapid development features, "The development could have been done in BBJ with some work adding more keys and a lot of code. Instead, we were able to complete the Barista lookup in less than a hour and a few lines of code in the CUI program to make it all happen." Wright adds, "We also created a new process to track receiving problems completely from Barista. This look-up functionality took me less than a day from start to finish; that includes the look-ups and filters for each department. There is not much in training for users since all the Barista screens function the same way."

Figure 3. Barista-developed receiving tracker

“...less than a hour and a few lines of code...”

```
enter rd_query_id$, retval$
nsid$="RET_"+rd_query_id$+str(java.util.UUID.randomUUID())
bbj_home$=System.getProperty("com.basis.server.configDirectory")
bbj_home$=bbj_home$(1,len(bbj_home$)-3)
BBjAPI().getGroupNamespace().setValue(nsid$,"")
a=call(" bbj -tT0 -q -WD""+bbj_home$+"barista/" -c""+bbj_home$+
:"barista/sys/config/enu/barista.cfg" sys/prog/bax_launch_task.bbj
: - -yQ -uadmin -padmin123 -q"+rd_query_id$+" -mINQ -n"+nsid$+" ")
BBjAPI().getGroupNamespace().setCallbackForVariableChange(nsid$,"retval")
process_events,err$=same
retval:
BBjAPI().getGroupNamespace().removeCallbackForVariableChange(nsid$)
retval$ = BBjAPI().getGroupNamespace().getValue(nsid$)
if retval$=$00$ or retval$=":CANCEL:" then let retval$=""
exit
```

Figure 4. Actual code that added additional functionality to Bisco's application

Figure 3 shows a sample result from this new tracking process.

By using Barista and its “sprinkles,” Bisco was able to take advantage of the automatically generated grids. Sprinkles include utilization of the GUI look-up grid and built in filtering, re-ordering, print preview, and support of numerous output file types including PDF, XLS, CSV, XML, and Google Docs, as well as the ability to fax, email, and archive documents. Bisco added these sprinkles with just a few lines of the code (Figure 4) in their CUI app.

Another Need Met

In addition to the initial issues Bisco addressed with BASIS, their webstore didn't quite interface to their ERP solution as well as they wanted. Learning about the AddonStore, a webstore based on BBj technology, Bisco decided to implement the AddonStore as their new online interface to their existing ERP solution. This next project will not only provide them with the means to easily update the look of their site and allow for further expansion at a later date, but also give them a number of other benefits:

- The AddonStore provides easier development with separation between design and code, and a modern object-oriented development paradigm.
- The AddonStore uses the same technology for the internal system as Bisco's internal system, which allows for the re-use of business logic as well as the data formats (the store will receive the data using BBj replication).
- The AddonStore also allows more extensive use of cascading style sheets (CSS) than the current Bisco site, enabling them to apply different styles to the original content to give it a completely different look and easily change it at any time to keep the look and feel fresh and modern.

Bisco is again looking to BASIS Professional Services for assistance as they adapt and customize the AddonStore, and train Bisco employees to take over maintenance and modification of the site. Bisco programmers are learning by working on the very same site that they will eventually be responsible for, instead of simply learning from traditional training material.

Summary

Since facing this decision a few years ago to update their business application, Bisco has successfully provided their employees with the beginnings of a modern GUI application that combines the functionality of their existing business solution with the ease-of-use and look of a modern graphical user interface. By choosing to upgrade to BBj with integral assistance from BASIS Professional Services, Bisco is now transforming both their in-house application as well as their website to be functional, attractive, and user friendly. Bisco now has a robust enterprise with redundancy and performance, and room for unlimited expansion by adding additional servers to the load balanced cluster. They continue to add GUI functionality with Barista and with the AddonStore, and will look for even more ways to take advantage of BASIS technology in the future.

BASIS Professional Services played a key role in assisting with Bisco's survey of how well BASIS technology could fulfill their new requirements and by training Bisco's IT staff to continue meeting the needs and requirements of customers and employees alike, well into the future. If you find yourself in the same place as Bisco was, wanting or “needing” to modernize the look and capabilities of your functional but dated-looking application, consider sharing the task with BASIS Professional Services as Bisco did, and look forward to enjoying a fresher, more efficient, more modern you. ■ links.basis.com/13code