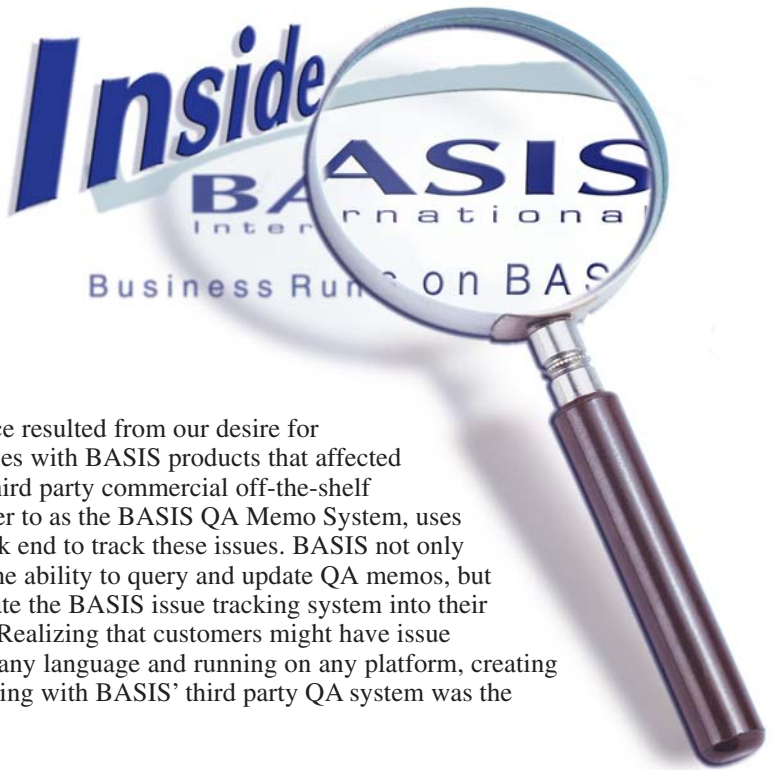


The QA Memos Web Service

By Brian Hipple



The term “Web service” is likely one you have heard, either in a previous Advantage article or as the latest IT buzzword. The Wall Street Journal recently reported that financial analysts say that Web services and the opportunities that they create for IT companies to garner improved revenues is the next major catalyst for a rally in IT stocks. Web services are widely used to communicate, share data, and invoke functionality between disparate systems written in different languages and running on different platforms. BASIS employs this technology in a service known as the QA Memos Web Service.

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The QA Memos Web Service resulted from our desire for customers to track their issues with BASIS products that affected their software. Remedy, a third party commercial off-the-shelf software system that we refer to as the BASIS QA Memo System, uses a Microsoft SQL server back end to track these issues. BASIS not only wanted customers to have the ability to query and update QA memos, but to have the ability to integrate the BASIS issue tracking system into their own issue tracking system. Realizing that customers might have issue tracking systems written in any language and running on any platform, creating a BBj® Web service interfacing with BASIS’ third party QA system was the perfect solution.

Giving users the ability to search and update QA memos was very important to BASIS. With this in mind, we created the QA Memos Service interface with this functionality. Specifically, we designed the search method to accept criteria such as the QA memo number, status – whether open, fixed, or closed – short description of the issue, and whether the QA memo affected a particular customer. Next, we defined the method for updating a QA memo with such customer information as name and e-mail address. Regarding creation of new QA memos, we chose not to allow customers to create memos via this Web service interface

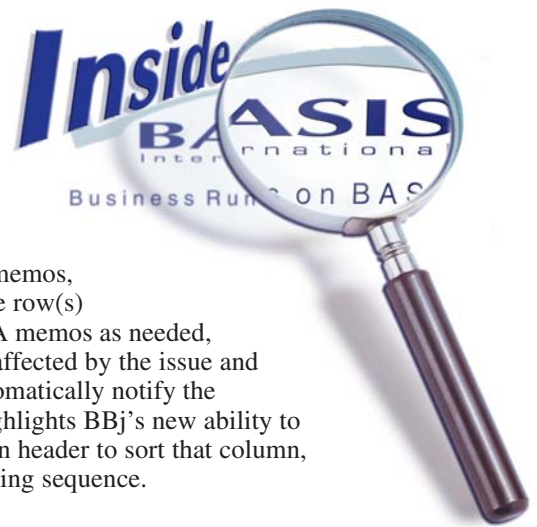
since procedurally BASIS would first reproduce the user-reported issue before creating a QA memo. This decision also would help us ensure the problem exists as stated, as well as facilitate a fix and confirm the fix solved the reported issue. Since BASIS wrote the service back end in BBj, the BBj application takes advantage of MS SQL Server’s JDBC Driver to access the data, apply business logic, and return it to the client.

BASIS also supplies a client application written in BBj to provide access to our QA Memos Web service. This sample consumption program appears in **Figure 1**.

continued ...

QA Memo #	Status	Short Description	Date Created	Date Fixed	*Customer Affected
15515	Open	When the grid font is changed, Visual PRO/5 au	2005/09/02		<input checked="" type="checkbox"/> Yes
15514	Open	ENHANCEMENT add BBjStandardGrid.num	2005/09/02		<input checked="" type="checkbox"/> Yes
15510	Open	ON_GRID_CHECK_ON and ON_GRID_CHEC	2005/09/01		<input checked="" type="checkbox"/> Yes
15506	Open	For BBjGrid, we need to provide the user a way	2005/09/01		<input type="checkbox"/> No
15505	Open	For BBjGrid, we need a method along the lines	2005/09/01		<input checked="" type="checkbox"/> Yes
15498	Open	Need BBjGrid::sortBySingleColumnOnly(boolea	2005/08/31		<input type="checkbox"/> No

Figure 1. Sample client application



The developer has the ability to query QA memos using the criteria mentioned above, as well as to update them with customer information. In order to update a QA memo, the developer must supply a customer name and e-mail address that must match a subscriber to the BBj-Developer list (www.basis.com/support/submanage.html). To update a QA memo with your customer information, simply enter your name and e-mail address, query the QA memos, and select the “Customer Affected” check box on the associated row(s). Notice the row(s) containing the selected QA memo(s) turns red. Repeat this process for as many QA memos as needed, then press the [Update] button. The updated information identifies the customers affected by the issue and helps the customer to query QA memos, as well as allowing the QA system to automatically notify the customer via e-mail when the QA memo is marked fixed. This application also highlights BBj’s new ability to sort information by columns in a standard grid. Simply click on the desired column header to sort that column, repeating clicks as needed to toggle the sort order between ascending and descending sequence.

Figure 2 shows a diagrammatic representation of the system components involved in the delivery of the Web service. It shows the BBj Web service accessing data from the Remedy system’s MS SQL Server database and a BBj database, which stores additional QA Memo information. It also illustrates the use of the BBj client application hosted in BASIS’ offices being deployed via Java Webstart, launched from a page on the BASIS website out across the internet to a client’s desktop. The consumption of the Web service could take place from within a BASIS customer’s own issue tracking system. Have a look at the *Choices, Choices, Choices* article on page 26 to learn more about the wealth of deployment choices available with BASIS technology.

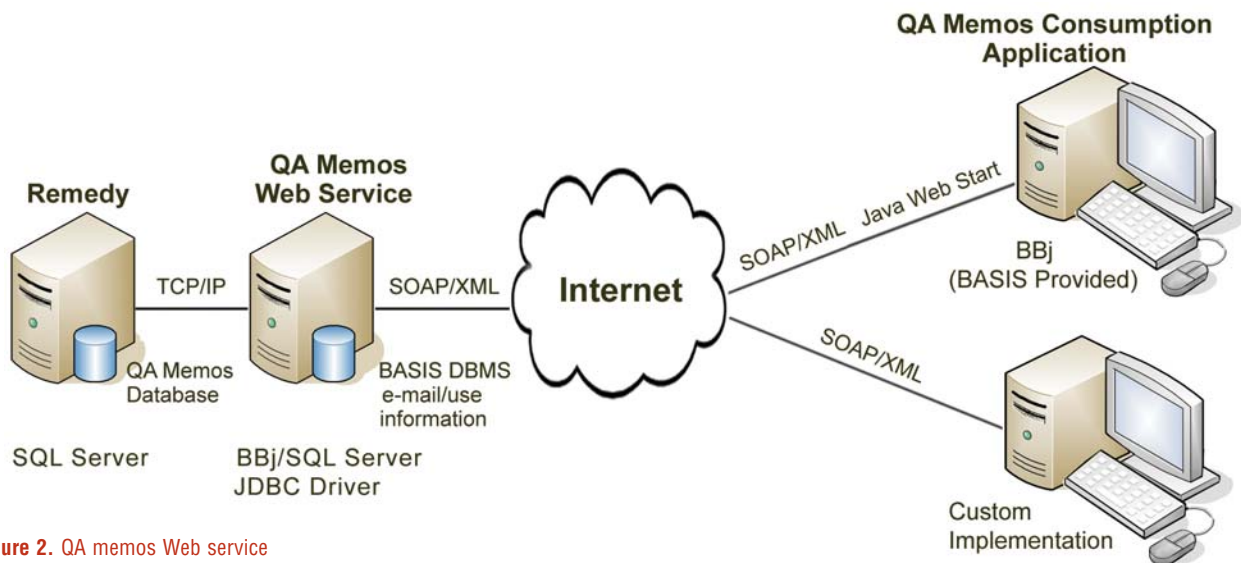



Figure 2. QA memos Web service

This application is a working example of a Web services consumption program written in BBj. BASIS freely distributes the source code to provide developers with the ability to scrutinize and customize the code. (To integrate this service into an application not written in BBj, create your client side stubs from the WSDL accessible in the link below.) The true power of Web services lies in the ability to create client interfaces and back end server interfaces to existing applications, with little concern for the operating system, database or the programming language that the application relies on. Web services fits into most any business need. Experience the power and flexibility of Web services today. 



To access the QA Memo Service WSDL, or run the client application referenced in this article, or to download the source code for this application, go to www.basis.com/devtools/techresources/index.html

For an in-depth look into how to create a Web service with BBj, refer to these *BASIS Advantage* articles:
Writing a Web Service www.basis.com/advantage/mag-v7n2/web-service.html and
BBj and Web Services www.basis.com/advantage/mag-v7n1/web-services.html.