The Great Connection
Connecting Legacy Applications to the New BASIS Database Management System

By Jeff Ash

M igrating software currently written in older versions of BB^X® to BBj®, the latest version of BB^X, often occurs over an extended period of time. This article gives some helpful ideas about developing a migration plan and explains how both BBj and PRO/5® interpreters can connect directly to the BASIS Database Management System (formerly known as the BBj Database), allowing customers to deploy the traditional BASIS interpreter with an innovative Java-powered database.

During the migration process, it is often necessary to use or test an application running in BBj while still allowing others to run applications using PRO/5. Licensing both products separately is no longer a concern, since current versions of both PRO/5 and BBj utilize the same license. This gives developers the freedom to use both products without having to purchase multiple licenses. However, PRO/5 and BBj use a different file locking mechanism, causing a conflict if both attempt to use the same file at the same time. To eliminate the locking conflict, BBj programs access files via a PRO/5 Data Server®, which provides a single access point to the files. This ensures the use of a single locking mechanism, regardless of the client.

Now, the developer has the option to give both products access to the data through the BASIS Database via the new "PRO/5 5.0 DS Server." This new server, built into BBj Services, provides complete access to files using BBj technology and opens up one more step in the migration path as it moves all data access to the BBj environment. Further centralization of the system components makes administration more efficient and manageable using the BBj Enterprise Manager.

Using the new PRO/5 DS Server is easy and straightforward. PRO/5 applications gain access to this server the same way they access a PRO/5 Data Server®. Simply change the PRO/5 Data Server references to the host running BBj Services and adjust the port, if necessary. On the BBj side, the administrator runs the BBj Enterprise Manager and simply completes the new BBj Services Setup dialog to configure a PRO/5 5.0 DS Server. PRO/5 Data Server configuration parameters set in the config.bbx file appear this dialog. The BBj Services setup dialog, shown in **Figure 1**, assists administrators in configuring multiple servers, allowing them to:

- specify the port and bind address of the PRO/5 5.0 Data Serer
- configure whether the server starts with BBjServices
- set Socket Secure Layer (SSL) for connection encryption
- configure other parameters such as prefixes, DISKSYNs, and advisory locking

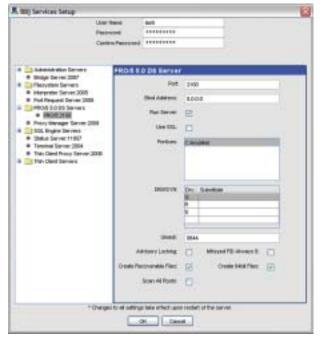In summary, several options aid in the migration process. First, as discussed above, all data access from PRO/5 and Visual PRO/5® version 5.0 or above, and BBj version 4.0 or above, may move into the Java-powered BBj world using the new BBj PRO/5 5.0 DS Server. This is the least disruptive migration step because it simply changes which process performs the reading and writing of the data files. Second, the users can run their application using PRO/5 or Visual PRO/5 and BBj simultaneously, without any licensing or data conflicts, allowing for some areas of an organization to utilize the BBj technology while other areas continue to use their existing PRO/5 platform. Third, administrators can move SQL operations to the BBj Database by simply opening up a BBj ODBC Data Source instead of using the internal SQL engine built into PRO/5 and Visual PRO/5. This extends all the new features, performance improvements, and bug fixes to the Visual PRO/5 clients, which BASIS developed over the past four years, for the BBj SQL engine. Features such as OR optimizations, database performance analysis, support for extended SQL syntax, and user-defined functions expand the capabilities of BBj's SQL engine, providing a more robust solution.

Java is definitely the wave of the future, and for many, including BASIS, it is the wave of the present. With the new features in PRO/5, Visual PRO/5, and BBj; and the migration options discussed in this article, migration to BBj from the earlier generations of BB^X can begin today.

Figure 1. PRO/5 5.0 DS Server configuration parameters