

More On Client File Access

By Brian Hipple

A

previous Advantage article, [Desktop Data Delivered](#), explored the client filesystem API available in BBJ® version 7.0 and greater. This article expands upon that building block to determine in what situations client files are useful and describes how to use the client file system to create client side files as well as how to edit and transfer the files to and from the client.

Use Cases

An application may need to store/access various forms of data on/from the client machine. Web browsers, for example, use cookies that are client-side settings to authenticate, track sessions, display state information, and maintain specific data about the user. An example of cookies is personal information such as name, company, address, and phone number. The client keeps all this data and automatically displays it in a form each time the user returns to the site. The BASIS product [download page](#) uses cookies to present personal data each time a user downloads a BASIS product, thereby saving the user the time-consuming task of re-entering the required information.

Other uses for a client-side file include user-specific data files and end-user documents such as invoices, shipping information, and reports. When a user is running a custom report, would it make sense to save the report on the server? No, it should live on the client, so that users can view it on the client machine and print it on a client-side printer. Keeping the aforementioned data items on the client for which they are associated, will keep the server storage at a minimum, allowing for scalability as the number of users increase. The user can also access these files when offline and when not running the BBx® application.

Creation/Revision

To create a BBJClientFile object, call the `BBJClientFilesystem::getClientFile` method with a specified client file name as the parameter. If the file does not exist, then call the `BBJClientFile::createNewFile` method. Calling the method `BBJClientFile::setContents` will set the contents of the client file to a specified string. To enable the user to edit the file, set the contents of an edit control such as a `BBJEditBox` or a `BBJCEdit` control to the return value of the `BBJClientFile::getContents` method.

Those who attended TechCon2007 saw the "Client File Editor" demo† in action. This demo allows the user to select a file on the client using the `BBJFileChooser` control created with the \$0004\$ flag passed into the `BBJWindow::addFileChooser` method to use the client filesystem. The user could also edit the contents using a `BBJCEdit` control and save it back to the client machine. See **Figure 1**.

continued...

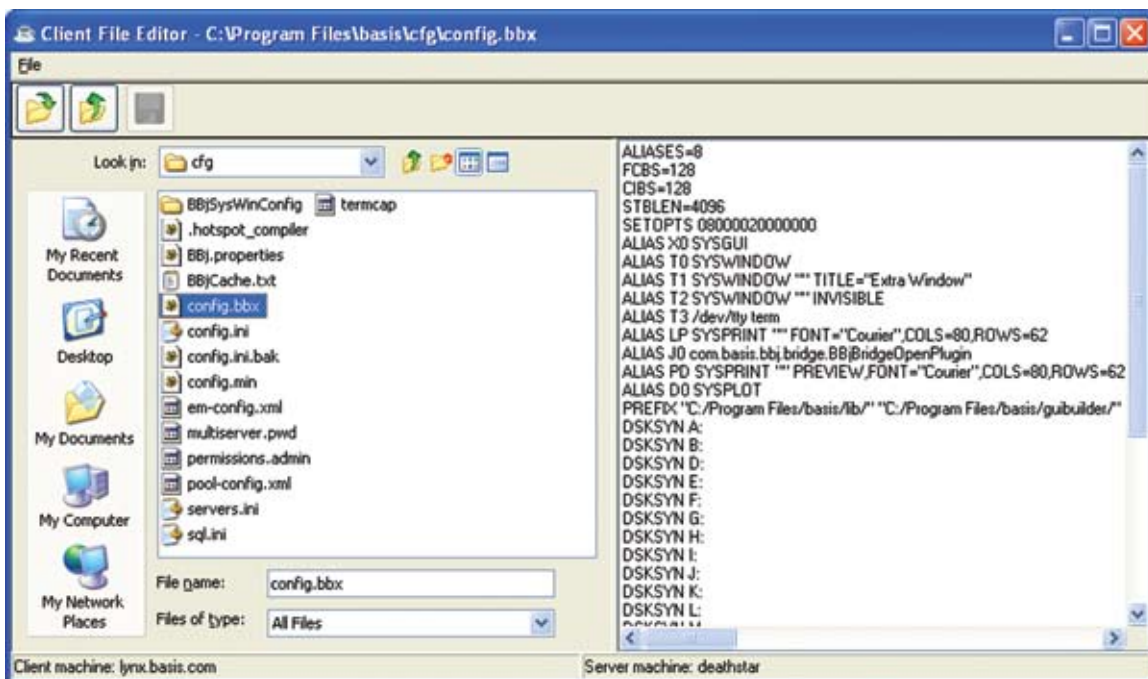


Figure 1. The Client File Editor demo



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The Client File Editor demo works well with ASCII files, but what if the file you want to save on the client is a BBx file such as an **MKEYED** or a **VKEYED** file? The file must be transferred to the server for manipulation with traditional BBx file verbs such as **OPEN**, **READ RECORD/WRITE RECORD**, **CLOSE**, and **RENAME**. When processing is complete, transfer the file to the client for storage. To copy files to and from the client, use **BBjClientFile::copyFromClient** and **BBjClientFile::copyToClient**, also demonstrated at TechCon2007 via the Client FTP program. This demo shows the client and server file systems in BBjFileChooser controls, in which the user can select the files and directories to transfer to and from the client. See **Figure 2**.

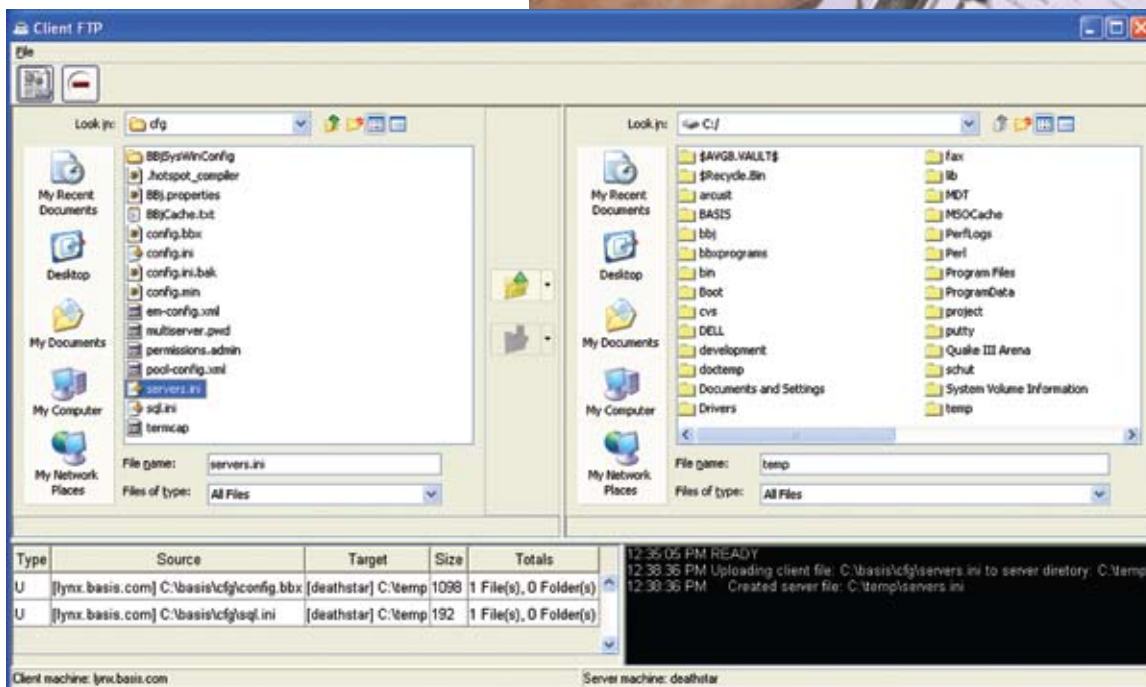



Figure 2. Client FTP program

Summary

The client file system offers many different functions when run in a thin client environment including Web start. This includes the use of client-side configuration and settings files, end user reports, and data files. End users will surely be impressed when they can access files on their own machine for further use, even when they want to access those files from non-BBx applications. Try the new client file system in your application today and reap the multiplicity of benefits of current BASIS technology. 



For an introduction to the client filesystem, read [Desktop Data Delivered](#) in the *BASIS International Advantage*.

† Download with BBj from www.basis.com/products/bbj/download.html and select "Demos" in the Optional File section. After completing the installation, select BBj > Demos > LaunchDock from the BASIS folder to run the demo.