

# Dishing up Forms

By Robert Del Prete

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he BBJForm object, combined with the getBBjPDFForm() method and the BBJClientFileSystem, make generating and distributing forms fast, easy, and accurate. This article reviews the BBJ® Objects and methods that give developers all the tools they need to dish up even the most complicated forms.

## When it all Began

BBj 4.0 introduced the BBJForm object to simplify document and report creation within BBj and to provide advanced formatting capability and greater access to printers. Creation of reports with complex layout requirements and multiple font types and images became much easier for BBj developers to create.

The getBBjPDFForm() method, introduced in BBj 6.0, allows the creation of documents in Portable Document Format (PDF) format. Created by Adobe in 1993, PDF files include text, images, multiple fonts, and graphics, and are viewable by multiple applications on different operating systems. With so many options for creating and viewing documents, PDF gives developers a rich and widely accepted environment in which to create their forms.

To complement these features, BBj 7.0 introduced the BBJClientFileSystem to provide developers with an API to access and manipulate files on the client without needing a BBJFileSystem server on the client.

## The Utensils

The BBJClientFile and BBJForm objects combine to give developers a better structure for their printing routines and more effectively meet the needs of their customer base. The "Rebate Generator" demo† (shown in **Figure 1** and downloadable with BBj), utilizes these objects to allow BBj clients to display and/or print a PDF document. This program includes formatted text, bar code fonts, images, and graphics. It moves the PDF to the client using the BBJClientFileSystem and displays the PDF via a BBj multimedia viewer program created using client objects.

Item Number	Description	Rebate Amount
<input checked="" type="checkbox"/> DCC-00002	Ancho-Pods, large	\$3.00
<input checked="" type="checkbox"/> DCC-00006	Chile Con Carne Sampler	\$1.00
<input type="checkbox"/> DCC-00014	Red Chile Rictac	\$1.00
<input checked="" type="checkbox"/> DCC-00018	Wild Piquin	2.00

\*\*\*select items and choose amount to generate the appropriate Rebate Form\*\*\*

Generate Cancel

Figure 1. The "Rebate Generator" demo

## Create the Form

Developers can use the getBBjPDFForm() method to obtain a BBJForm object and subsequently add the page object using createPage(). Then they simply need to add text and images to the page object to create the rebate form.

```
api=BBjAPI()
pdfform$="pdfform.pdf"
doc!=api!.getBBjPDFForm(pdfform$,1)
page!=doc!.createPage()
```

The getBBjPDFForm() method specifies the PDF image parameter to prevent complications on the client. This increases the size of the PDF image, but it also guarantees the end result displays exactly as rendered, regardless of

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whether the barcode font exists on the target computer. If the PDF document needs editing, specify the document form of `getBBjPDFForm()` as follows:

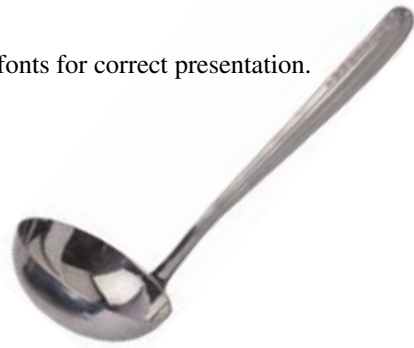
```
Doc!=api!.getBBjPDFForm(pdfform$,0)
```

This form allows editing but relies on the client operating system to supply the fonts for correct presentation.

### Add an Image

To add a new image to the page, specify the image file, location, and size.

```
dccccimage!=page!.newImage()  
dccccimage!.setFile("DryCanyonLOGO.png")  
dccccimage!.setPosition(new java.awt.Point(0,0))  
dccccimage!.setWidth(566)  
dccccimage!.setHeight(65)
```



### Add a Graphic Line

To add a simple line graphic to the page, use `newLine()` and set the position, length, and thickness using `BBjFormLine` methods.

```
titleline1!=page!.newLine()  
titleline1!.setRelative(0)  
titleline1!.setPosition(new java.awt.Point(20,105))  
titleline1!.setEndPoint(new java.awt.Point(580,105))  
titleline1!.setThickness(1)
```

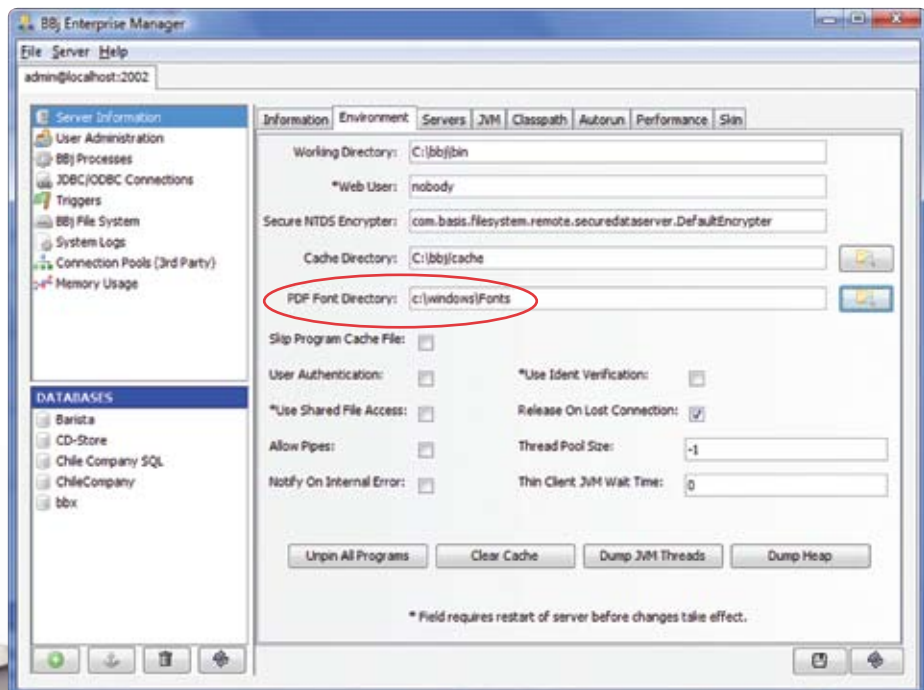
### Add Text

Add text to the paragraph by specifying `newParagraph()` and set fonts, location, and size..

```
let smalltextfont!= new java.awt.Font("Arial", java.awt.Font.PLAIN, 9)  
qualifytext2!=page!.newParagraph()  
qualifytext2!.setHorizontalFill(1)  
qualifytext2!.setPosition(new java.awt.Point(15,445))  
qualifytext2!.setText("To qualify for this rebate, please make sure you complete ALL of the following steps:")  
qualifytext2!.setFont(smalltextfont!)
```

Notice the use of `setFont()` in the sample above. Any TrueType or PostScript font, including barcode fonts, is available to the PDF form provided the correct font location appears in the Enterprise Manager "PDF Font Directory" field as shown in **Figure 2**. Once this configuration is complete, this process of adding barcode fonts to the form is the same as changing the font on any other paragraph.

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**Figure 2.** Configure PDF Font Directory in the Enterprise Manager



## Use a Barcode Font

```
let barcodeFont!=new java.awt.Font("IDAutomationSXHC39M",java.awt.Font.PLAIN,14)
productlupc!=page!.newParagraph()
productlupc!.setHorizontalFill(1)
productlupc!.setPosition(new java.awt.Point(340,(positionVector!.getItem(itemcount-1)+7)))
productlupc!.setText("32789823")
productlupc!.setFont(barcodeFont!)
page!.add(productlupc!)
```

## Ready to Serve

After adding text and images, render the document as a PDF image.

Distributing the form to the client is possible via the BBClientFileSystem. The `copyToClient()` method copies the newly created PDF file over to the client.

```
mcf! = api!.getThinClient().getClientFileSystem()
clientpdf$=FILESAVE("Save PDF File to Client",FILE_DIR$,"","",FILTER$)
clientpdf!=mcf!.getClientFile(clientpdf$)
clientpdf!.copyToClient(filepdf$)
```

The `getClientFile()` method retrieves the file on the remote client while the `copyToClient()` copies the file over to the client. The finished PDF form appears in **Figure 3**.




The "Multi-Media Viewer" demo† program uses client objects to display the PDF file on the client system. The end result is a PDF document created, shipped, and displayed on the client using BBj. The document can be viewed, printed, e-mailed, or saved for later use.

Multimedia Viewer

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DRY CANYON CHILE COMPANY

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**\*\*\*Offer Valid October 1, 2007 through December 31, 2007 Limit two Rebates\*\*\***

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- 3) Include the ORIGINAL UPC CODE out from the qualifying products. See below for Sample.


ATTN: ALL of the above required documents to:

**Figure 3.** The resultant PDF of the "Rebate Generator" demo

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## Summary

Using the BBJForm object along with the BBJClientFileSystem gives developers a wide range of options for creating and deploying forms within their application. Remote clients can now view and retrieve complex forms generated on the server. Dishing up forms has never been easier! 



Read more about PDF forms in earlier issues of the *BASIS International Advantage*

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