

Creating Images With Flex and ColdFusion Scott Stroz

120 Nelson Lane, Clayton, NC 27027 | p 1 888 ALAGADA | f 1 888 248 7626 | www.alagad.com | info@alagad.com



Who Am I?

- Who am I?
 - Senior Software Architect for Alagad.
 - Web developer for over 7 years.
 - ColdFusion Developer since ColdFusion 5.
 - Adobe Community Expert
 - Author of Flogr
 - A Flex based tool for viewing ColdFusion log files.
 - Developing in Flex since version 1.5.

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What Will We Cover?

- Using External Libraries in Flex Applications
- Using AS3 CoreLib
- Creating the Image in Flex
- Passing the Image to ColdFusion
- Processing the Image with Coldfusion
- Things to Watch Out For
- What Can We Use This For?

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Using External ActionScript Libraries

- What are external libraries?
 - ActionScript classes, or groups of classes, packaged together, usually in a .swc file, to provide additional functionality.
- Examples:
 - ☐ AS3 CoreLib (hashing, JSON library, JPG & PNG Encoding, a lot more)
 - ☐ FlexUnit
 - ☐ eBay
 - ☐ Flickr
 - ☐ Yahoo Maps
 - ☐ Mapquest
 - ☐ YouTube

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Using External ActionScript Libraries

- How Do we use them?
 - You can add them to your Flex project by editing the properties of your project.
 - Place them in the 'libs' directory of your project.
 - Flex builder will recognize them and import them into you project for you.
 - Then we simply use `import` statements in our MXML or AS files.

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Creating the Image in Flex

- Before we can do any bitmap encoding, we need to import the CoreLib class we will use by using:

```
import com.adobe.images.JPEGEncoder;
```
- Next we need to create an instance of the BitmapData class:

```
bitmapData:BitmapData = new  
BitmapData(width, height);
```

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Creating the Image in Flex

- Now that we have our BitmapData, we need to create an instance of our encoder.
- `jpgEncoder:JPGEncoder = new JPGEncoder(90);`
- The argument we are passing in is the quality of the image.
- Lastly, we encode the BitmapData. This method returns a ByteArray object.
- `imgData:ByteArray = jpgEncoder.encode(bitmapData);`

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Creating the Image in Flex

- We can wrap this code up into functions to make it easier to use.

```
private function getBitmapData(target:UIComponent) : BitmapData{
    var bitmapData:BitmapData = new BitmapData(target.width,
        target.height);
    var matrix:Matrix = new Matrix();
    bitmapData.draw(target, matrix);
    return bitmapData;
}

private function createImage(target:UIComponent):ByteArray{
    var bitmapData:BitmapData = getBitmapData(target);
    var jpgEncoder:JPGEncoder = new JPGEncoder(90);
    return jpgEncoder.encode(bitmapData);
}
```

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Passing the Image to ColdFusion

- We now have our image ByteArray, next we need to send it to ColdFusion.
- First, we create a `<mx:RemoteObject />` to allow us to talk to ColdFusion.

```
<mx:RemoteObject
id="imageService"
showBusyCursor="true"
destination="ColdFusion"
source="com.DemoImageService">

<mx:method
name="saveImage"
result="imageSaveResult(event)" />

</mx:RemoteObject>
```

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Passing the Image to ColdFusion

- Next, we create some code that will call the `saveImage()` method of the imageService RemoteObject.

```
private function
sendImage(target:UIComponent):void{
    var imgData:ByteArray = createImage(target);
    imageService.saveImage(imgData);
}
```

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Processing the Image With ColdFusion

- Lastly, we need to create the ColdFusion Component (CFC) that will handle saving the image to the server.

```
<cfcomponent name="Image Service" displayName="Image Service"
output="false">

    <cffunction name="saveImage" access="remote" output="false"
returntype="string">

        <cfargument name="data" type="binary" required="true" />
        <cfset var imageName = createUUID() />
        <cfset imagePath = "/images/"&imageName&".jpg" />
        <cffile action="write" file="#expandPath(imagePath)#"
output="#arguments.data#" />
        <cfreturn imagePath />
    </cffunction>
</cfcomponent>
```

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- Let's See How This All Works Together

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Things To Watch Out For

- If you do not have your Flex components styled or skinned, the images created may not look like you intended.
 - Default styles for many UI Components are partially transparent and the background shows through.
 - If you do not style or skin the components being used, most will have faint gray borders or backgrounds.
 - By default any images created will have a white background.

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What Can We Use This For?

- This is cool but how useful is it?
- Ways this can be used:
 - Capturing graphs and charts easily.
 - Add captions to images.
 - Add watermarks to photos.
 - Simple business card generator.
- Let's take a look at some of these.

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Resources

- <http://www.flex.org>
- <http://code.google.com/as3corelib>
- <http://actionsript3libraries.riaforge.org>

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•Questions, comments,
concerns?

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