

I. Overview:

You are to write an html page that will watermark an SVG file with a QRCode and enable the user to print the resulting page at full-print resolution (8.5in x 11in @ 300 DPI Minimum) using JavaScript. The intent is to enable users to download a customized version of a file they can print.

- a. To minimize computational needs on the server and to save bandwidth, I would like the watermarking of the file and the generation of the QRCode to happen on the client's browser.
- b. To minimize the visual complexity of the generated QRCode, your page should send the string to be encoded into the QRCode to TinyURL (or other URL shortening service) prior to encoding it into a QRCode.
- c. You are free to use any technique, library, etc. that you feel is appropriate including rasterizing the SVG file (@ 300 DPI), using HTML 5 canvas, etc.
- d. You do not need to include a "print" button on the page. Assume the user will print the page by using the browser's native printing capabilities.
- e. When printed, the generated document should be full page (8.5in x 11in at a minimum of 300 DPI)
- f. This should work in Google Chrome, Firefox, MS Edge, and Safari.

II. Steps for your page

1. Hard code into your page a variable called QRCodeTarget with the following string:

<http://www.myserver.com/A.php?username=xxxxxx&password=yyyyyyyy>

Note: After your page is completed, I will be adding some PHP around it to dynamically fill the string QRCodeTarget with the content that I needed encoded into the QRCode

2. Download load clean.svg. Assume this graphic is to be shown at 100% percent of the letter-sized printed page (8.5in x 11in).
3. Send QRCodeTarget to TinyURL (or other shortening service) to generate a shortened version of the QRCode (ie ShortenedQRCodeTargetString).
4. Generate a QRCode holding the content of ShortenedQRCodeTargetString. The generated graphic should be vector or have enough raster resolution to print at 300 DPI. On the page printed page (8.5in x 11in), it should take up approximately 2in x 2 in.
5. Overlay the generated QRCode graphic on the corner of the screen as on result.pdf. If you can keep the entire operation as a vector graphics that would be great. However, if you need to rasterize the graphics that is fine too ... just be sure to generate enough resolution to allow printing at a minimum of 300 DPI (8.5in x 11in) when sent to the printer.

III. Samples

1. Clean.svg shows the type of file that you would be downloading from the server
2. Result.pdf is representative of the result that your page should generate. In this case the user printed it into a PDF. Note, you do NOT need to provide PDFing functionality.