Guide to obtaining an image for use as an e-form background:

- 1. Scan you form at 300dpi, using the grayscale setting.
 - here's an example a typical scanned image. Note that it's a bit rotated, the background is a bit grayish, the text is not pure black, and there's an office stamp in the bottom right corner.

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2. Open up the image in an image editing program. You can download the open source GIMP for free at "<u>http://www.gimp.org</u>

- open up the image in GIMP

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- 3. Let's straighted up the image.
 - We'll need to add in a vertical and a horizontal guideline as reference
 - click on top ruler, and drag a guideline down to line up with a horizontal line on the form

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 click on the left ruler and drag a guideline to the right to line up with a vertical line on the form



- now go to Layer->Transform->Arbitrary Rotation



- increase or decrease the angle so that the form looks straight



- Click on "Rotate" to finalize the rotation
- Go to "View", de-select "Show Guides" to hide the guidelines
- 4. Crop the image to the appropriate size
 - crop the image to get rid of the margins of the page
 - select the "rectangle select tool" on the top left corner of the "Toolbox"



- drag out a rectangle around the contents of the form

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- go to Image -> Crop to Selection



- Now you've got a correctly rotated and cropped image



5. Get rid of unwanted stamps/writing/etc.

- using the rectangle select tool, drag out a rectangle around the office stamp in the bottom right corner



- go to Edit -> Fill with BG colour (assuming you have selected white as your background colour)



- Now you'll have an image that's fairly clean.

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- 6. Adjust the colours of the page
 - If you print out the image now, you'll see the background is a bit grayish looking. Note that the area where we have deleted the office stamp is whiter than the rest of the background.
 - You'll want to make the whites whiter, and the blacks blacker.
 - go to Colours -> Levels

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- You'll see a histogram. There's a peak on this histogram's right, this represents all the light grey colour of the background.

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- Drag the white triangle from the extreme right of the histogram to just to the left of the peak (see red arrow). This will whiten the background areas.
- Drag the black triangle from the extreme left of the histogram to the right a little. This will darken the black text. Click OK to apply the colour changes.

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- There! The image looks pretty good now.

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- 7. Resizing the image
 - The size of the image at this time is still very big
 - I usually reduce the width of the image to 1500 pixels. When this images is loaded into the browser as a part of the e-form, this get scaled down by half to 750 pixels. Assuming that you're printing on a 8.5in by 11in US letter size paper, and that you have approximately 0.5in border on either side, you'll have 1500 pixels to print to a width of 7.5 inches, or about 200pixels per inch. This should be enough for a sharp printout.
 - If the form is in landscape orientation, I resize the width to 2000 pixels. Similarly, this get scaled down to 1000 pixels on the e-form. Printing 2000 pixels over 10 inches (0.5in border), also gives 200 pixels per inch.
 - Go to Image -> Scale Image



 Change the width to 1500 pixels, then click on the "link symbol" on the right or inside the Height input box to update the height size. Change the X resolution and Y resolution to 200 pixels/in. You can leave the interpolation at "Cubic". Click on "Scale" to apply the changes.

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8. Reducing the number of colours

- currently the image is in Grayscale mode, we can reduce the number of colours to reduce the file size.

- one way of achieving this is by changing the colour mode to indexed mode.
- Got to Image -> Mode -> Indexed



- in the conversion dialog box, select web-optimized palatte, remove unused colours from colourmap, then click Convert.

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- 9. Saving the image
 - Go to File -> Save as



 Type in a name for the image, select the destination folder. Click on the "+" sign beside the "Select File Type"

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- For the file type, you can use jpeg, gif, or png files. I usually use png files.
- In the png saving dialog, leaving the interlacing off may make the image sharper.
- You can experiment with the compression level, the higher the number, the smaller the file size. 9 works for most cases.

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- Click Save, and you're done!

Prepared by Shelter Lee, Nov 19, 2009.