# Health Sciences Database Image Editing Outline

#### The TO DO list ...

- 1) **Straighten** to true vertical / horizontal
- 2) **Crop** removes extraneous data
- 3) Level's adjustment, can lightens very dark image, or darken a light image
- 4) **Resize** to HSDB preferred dimension of 700 pixels wide (maximum width can now exceed 700 pixels wide)
- 5) **Sharpen** returns crispness of focus
- 6) **Save** for web reduces overall file size, reduces load time
  - A. Open **Adobe PhotoShop 7.01**, if you are using an older version of Photoshop (5.5, or 6.01) the interface will differ but principles will be the same.
  - B. From drop-down menu click **File > Open**, navigate to folder or CD-ROM, select image file, click **Open** button. The image is now open in Photoshop.

Images stored on the Health Sciences database (HSDB) are now available in 7 sizing options; at this time it is optimum to edit your image to 768 x 512 pixels as the database now accepts images of greater than 700 pixels wide (this change went in to effect 6/2003). NOTE: if your image is smaller than any option listed below the larger sizes will not be created at upload time.

## The versions created from a single image of 768 x 512 pixels when uploaded to HSDB are:

Icon (image reduced to max 30 pixel width/height)
thumbnail (image reduced to max 72 pixel width/height)
small (image reduced to max 200 pixel width/height )
medium (image reduced to max 360 pixel width/height)
large (image reduced to max 520 pixel width/height)
extra-large (image reduced to max 700 pixel width/height)
original (original - untouched image, is saved just as uploaded)

## 1) Straightening



To straighten a crooked image:

- From Photoshop's tool box grab the "measure tool" (it's under the "eye dropper tool").
- Drag out a measure-line on an "image feature" that should be "horizontal" or "vertical." Click at start and end of measure line.
- From menu choose **Image > Rotate Canvas > Arbitrary** and the correct angle of rotation required to straighten the image will already be entered into the Rotate Canvas dialog box
- Click **OK** button

To access Photoshop's guides from the menu choose **View > Rulers**. Click, hold, and drag guide out from either vertical or horizontal ruler. **2)** Cropping removes unnecessary image data, saves on file size.

Your notes

# 2) Cropping

Adobe Photoshop's tool box. Press "**c**" on computer key board to bring up the crop tool.



Figure 4

Click and Drag a selection. To fine-tune crop, drag any boundary. Hit the "enter key" to finalize the crop, to abort crop use the ESC key.



Figure 5

Your notes:

## 3) Level's adjustment (two options)

Levels X Levels Channel: RGB Channel: RGB --OK OK 225 1.00 255 1.00 Input Levels: 🗓 Input Levels: 24 Cancel Cancel Load. Load... Save... Save... Auto Auto 1 ð 00 F A 255 Output Levels: 0 255 Output Levels: 0 Preview Preview  $\overline{\Delta}$  $\overline{\Delta}$ 

Option 1) Use this option – when you are unable to identify a true White or Black in your image.

## figure 6- before



From menu choose **Image > Adjust > Levels**. This will open Photoshop's Level's dialog box (figure 7).

Make adjustments to Levels dialog box as follow

a) Move outer two sliders toward center to meet the base of histogram (as indicated in green oval).

b) Move center-most slider toward left to lighten mid-tones [approximately 1.10, not shown in figure 7]

c) Click OK

Your notes:

#### Figure 8

Figure 9

Making a "levels" adjustment can do much for your image.

Figure 8 before using "option 2" figure 9 shows result.





**Option 2)** Use this option when you CAN identify a **true black**, **mid-tone gray**, **or white** point in image. From menu choose **Image > Adjust > Levels**. This opens Photoshop's Level's dialog box (**figure below**). Make adjustments to Levels dialog box as follow to set the image's "white point."

a) In the level's dialog box, click on the white eye dropper.

b) Touch eye dropper to point believed to be TRUE WHITE. In example it's a dispenser (blue arrow in image on left)c) Repeat using gray eyedropper touched to mid-tone grey point, and or black eyedropper touched to black pointd) Click OK. The image on right is much improved.

## LEVELS dialog box (adjustment – option 2). Figures 10 & 11.



## 4) Resizing the Image



#### Figure 12

The original image (not shown to scale) measured 768 x512 pixels and a file size of 2316 KB (72 ppi)

#### Image > Image Size

Image Size				×	
Pixel Dim	ensions: 554k	(was 237K) —		OK	
<u>W</u> idth:	540	pixels	<b>」</b> 」®	Cancel	
<u>H</u> eight:	350	pixels	<b>_ _ 8</b>	<u>A</u> uto	
- Print Size	:				
Wi <u>d</u> th:	7.5	inches	<b>- -</b>		
Height:	4.865	inches	<b>_ _ </b>		
Resolution:	72	pixels/inch	•		
Constrai	in Proportions				
Resample Image: Bicubic					



Figure 13

This web ready version (not shown to scale) measures 408 x 280 pixels wide and now file size of 26KB (72ppi)

Images stored on the Health Sciences database (HSDB) are now available in 7 sizing options; at this time it is optimum to edit your image to 768 x 512 pixels as the database now accepts images of greater than 700 pixels wide. As of 5/2003 the versions created from a single image uploaded to HSDB are **Icon**, **thumbnail**, **small**, **medium**, **large**, **extra-large**, and **original (the original image can exceed 700 pixels)**.

From the drop-down menu choose Image > Image Size. At bottom of dialog box, Constrain Proportions must always remain checked to prevent distorting the height or width of your image unintentionally. Check, Resample Image: Bicubic. The Resolution box should read 72 pixels / inch.

- a) Enter Width: 768, the Height box will auto fill.
- b) Select pixels from drop-down box,
- c) Click OK button.

## 5) Sharpening



Figure 12 - Image (soft focus).

Figure 13 - Sharpened Image

Figure 14 Unsharp Mask dialog box.

12. To sharpen an image from menu choose, **Filter > Sharpen > Unsharp Mask** (amount) A: 50, increase to 75, 100, 125, or 150 as needed. (radius) R: 1 (threshold) T: use 1 or 2

Use your best judgment, apply the filter, follow by from menu choose **Edit > Undo** to remove if filter is to harsh. An unsightly halo effect can occur when filter is set too high, familiarize yourself with its limitations. (use **ctrl + z** toggle filter on/off). **Amount** determines the extent of the contrast increase, **Radius** sets the number of adjacent pixels that are taken into consideration when sharpening takes place, and **Threshold** decides which pixels are to be considered edge pixels. **Artifacts** are false colors and strange shapes that appear after excessive sharpening. Any color, contrast, or other adjustments taking place after sharpening make artifacts more prominent, **Sharpen last of all, and only if it benefits the clarity of the image**.

## 6) Saving for web

From the drop-down menu choose File > Save for web. **Save for Web Dialog box, 4 up view shown.** Setting menu: "**unnamed**", File type, choose one: **jpg** or **gif**, choose one: **Low**, **medium**, **high**, or maximum, start at low and stop when you have achieved acceptable results. Click **Save button**.



You use the Save for Web dialog box to select optimization options and preview optimized artwork.

Save for Web dialog box

A. Toolbox

- B. Preview pop-up menu
- C. Optimize pop-up menu
- D. Color Table pop-up menu
- E. Zoom text box
- F. Original image
- G. Optimized image

To display the Save for Web dialog box ... Choose File > Save for Web.

## **Previewing images**

**Click a tab** at the top of the image area to select a display option: Original to view the image with no optimization, Optimized to view the image with the current optimization settings applied 4-Up to view four versions of the image side-by-side.

## Save for web dialog box setting options:

If the **entire artwork is not visible** in the Save for Web dialog box, you can use the **hand tool** to bring another area into view. You can **specify a magnification** level in the **Zoom text box** at the bottom of the Save for Web

**Optimization options for JPEG format** JPEG is the standard format for compressing continuous-tone images such as photographs. Optimizing an image as a JPEG format relies on lossy compression, which selectively discards data.

**Quality: use the 4 panes to compare quality settings to original. Start low working up. Choose what you find acceptable.** Choose an option from the Quality Level menu. The higher the Quality setting, the more detail the compression algorithm preserves. Using a high quality setting results in a larger file size than using a low Quality setting. View the optimized image at several quality settings to determine the best balance of quality and file size.

**Optimized: check the box, it further reduces file size.** Select Optimized to create an enhanced JPEG with a slightly smaller file size. The Optimized JPEG format is recommended for maximum file compression; however, some older browsers do not support this feature.

**Progressive: don't check this option when images are for HSDB/TUSK.** Select Progressive to create an image that displays progressively in a Web browser. The image will display as a series of overlays, enabling viewers to see a low-resolution version of the image before it downloads completely. Note: Progressive JPEGs require more RAM for viewing, and are not supported by some browsers.

**Blur: use "0"** Specify the amount of blur to apply to the image. This option applies an effect identical to that of the Gaussian Blur filter and allows the file to be compressed more, resulting in a smaller file size. A setting of 0.1 to 0.5 is recommended.

**ICC Profile: leave unchecked** Select ICC Profile to preserve the ICC profile of the artwork with the file. ICC profiles are used by some browsers for color correction. (See Setting up color management.)

**Matte: choose "none"** Specify a fill color for pixels that were transparent in the original image: Click the Matte color swatch and select a color in the color picker. Choose an option from the Matte menu. Pixels that were fully transparent in the original image are filled with the selected color, pixels that were partially transparent in the original image are blended with the selected color.

# 7) File Save As JPG

Save As	2 🗙	JPEG Options	×
Save in:		Matte: None	OK Cancel
		Baseline ("Standard")	
		Baseline Optimized     C Progressive	✓ Preview
File <u>n</u> ame:	1234_001.jpg <u>S</u> ave	Scans: 3	
Save As	JPEG (*JPG;*JPE) Cancel	Size	
	Save I humbhail 🔽 Use Lower Case Extension	~104.97K / 36.45s @ 28.8Kbps	•
Figure 16		Figure 17	

From the menu choose **File > Save As >** (in this example \*.JPG)

(figure 16) Save As Dialog Box .... enter image file name.jpg

(figure 17) JPEG Options Dialog Box: set Quality, click OK button.

Your notes: