exercise::10

Working with Color Space Profile Conversion

Overview ::
For this lab, you will be converting an RGB file (tagged with the **Adobe RGB** color space profile) into a number of different CMYK files and one RGB file. Each file will be converted using a different profile. Remember that CMYK & RGB files are device-dependent—they are targeted to a specific device or profile. Also note that *none* of the profiles we'll use in this lab are specific to our color laser printer.

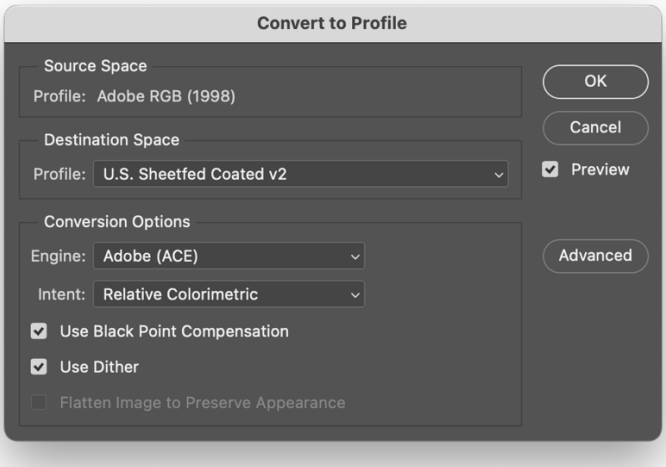
Process ::

1. Locate the exercise resources for this exercise on the class website under *Exercises*. Download that folder to your computer, and move the folder to your Desktop, and rename the folder on your computer using your name in the following format: `lastname_firstname_10`.

2. Open the file `Original_AdobeRGB_Swatches.tif` in Photoshop.

3. To convert the file to CMYK, use Edit > Convert to Profile.... Once in this dialog box, set the Destination Space Profile to **U.S. Sheetfed Coated v.2**. (This method allows us to convert the image to CMYK using a temporary Destination Space profile—it works with other conversion types as well)

   Make sure you have the Preview button selected so that you can see immediately the before-and-after appearance of the image. Continue this using the Undo (Command-Z) command to compare after converting. Study the image to see how it changes.



4. Use File > Save as... and save the image as `us_sheetfed_coatedv2.tif` in your exercise folder.

5. Close the file open in Photoshop, and re-open our original file. Do not work off of a converted file.

6. Perform Steps 3–5 **four more times**, each time with a different Destination Space Profile and, of course, performing a Save As and labeling it with a unique filename. Use the following profiles:

    a. **U.S. Sheetfed Uncoated v.2**

    b. **U.S. Web Uncoated v.2**

    c. **Japan Color 2002 Newspaper**

    d. **sRGB IEC61966-2.1**

7. In InDesign, create an 11x17 layout, with margins of 0.5" on all sides. Layout your images on the page, label each image with the Destination Space Profile, and include your name somewhere. Be sure to include the original TIFF file in your layout as well (still in Adobe RGB color space) and place it next to the sRGB version.

8. **Questions to answer:**
   Print the layout you made on the color laser printer. Take a good look at the color differences between the images. On the back of your print, briefly answer the following questions:

    a. How different are the swatch sets?

    b. Is the difference significant enough to matter to a designer or your client?

    c. To the best of your ability, explain why there is a difference between the images.

9. Hand in your printout (with your question answers on the back plus your name somewhere) and place all of the digital files for this lab in a folder named `lastname_firstname_10`, and copy that folder to your Drop Box on the shared Google Drive for this class.

   This exercise is due by the end of class today.