HP Ergosoft RIP Color Edition

HP Professional PANTONE Emulation

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HP Professional PANTONE Emulation analyzes image files for PANTONE spot colors and compares these spot colors to the printable color space of your color profile. By comparing the recipe of the spot color with the possible output, HP Professional PANTONE Emulation will display warnings for colors that cannot be accurately printed with the current profile and then allow you to not only find a suitable replacement color but also to substitute them for printing, all within the same tool.

To use HP Professional PANTONE Emulation, first make sure that your Print Environment contains a color profile that the PANTONE values can be compared to. Then, import an image file that contains spot colors into the Ergosoft RIP HP Color Edition.

Accessing the Feature

Next, start the HP Professional PANTONE Emulation tool through the *HP Tools* -toolbar. Note that if HP Professional PANTONE Emulation is not selectable from the toolbar, i.e. grayed out, your image files likely does not contain any detectable spot colors.
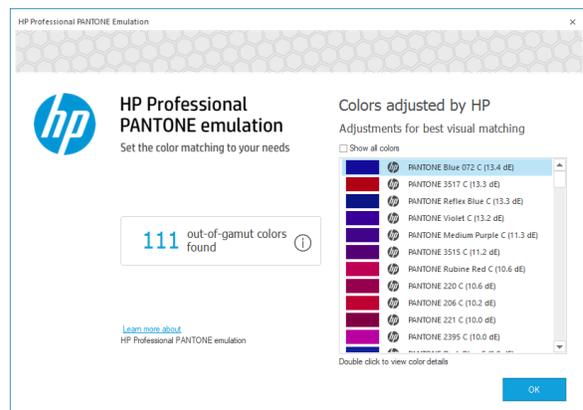
The Color List

After starting the HP Professional PANTONE Emulation tool, the color list dialog will appear. By default, the segment on right of the window will show a list of spot colors in the file that are out of gamut, i.e. not printable exactly with the current profile (By checking the *Show all colors* checkbox, the list will not only display out of gamut colors, but all spot colors detected in the file).

If the list is empty, all the detected spot colors are printable, congratulations!

If there are out of gamut colors in the list, HP Professional PANTONE Emulation lets you adjust the colors to printable color recipes.
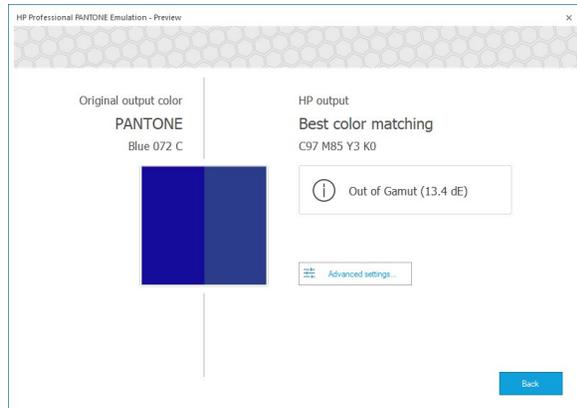
To do this, simply double-click on the color you would like to adjust.

Color Details

Double-clicking a color in the color list takes you to the adjustment dialog. This window displays several useful data points of information, such as the original PANTONE color both in name and an actual representation of the color, as well the suggested replacement color and the difference between the original color and the replacement color in deltaE using the CIEDE2000 standard.

The adjustment dialog will show the automatically suggested replacement color that most closely matches the original PANTONE color. The replacement color is shown both as a visual representation next to the original color as well as in CMYK values.

This is the color that will automatically be used when printing the file as is.

If you are satisfied with this color, there is nothing else you need to do. Simply click *Back* and verify the next color in the list.

If you would like to customize the replacement color, click on *Advanced Settings* to select a different replacement color.
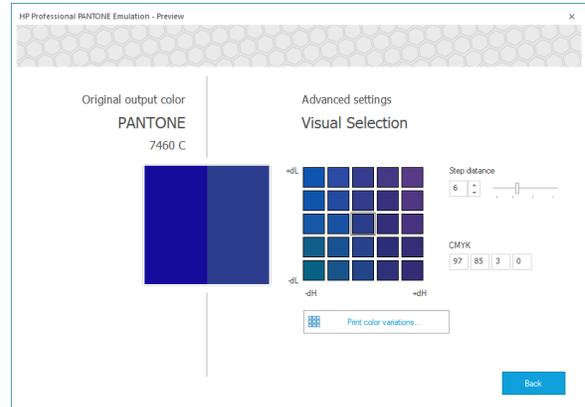
Advanced Settings (Further Color Adjustment)

In *Advanced Settings*, you can set a custom replacement color for the original, out of gamut PANTONE color, by simply selecting a color you like from a grid of similar colors. You can even adjust the color grid to get you closer to the desired color:

Step Distance: Sets how far apart the individual patches from the grid are. Increasing the step value means larger differences between the shown colors so larger shifts are possible.

CMYK: Shows the CMYK value of the currently selected color. You can also enter custom color values here if you already know the replacement value.

Print Color Variations: This button will create a job of the current grid and send it to the printer. This allows you to quickly print the color swatches in the grid to judge which one best matches your expected results.
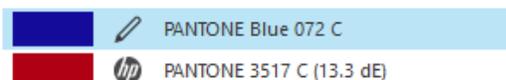

Apply these color changes to the permanent color table of named colors: By default, an adjustment for a color defined through HP Professional PANTONE Emulation is only applied to the currently selected image. By checking this box, the adjustment/replacement of the color is saved in the Print Environment as a *Named Color Profile*, so the adjustment/replacement is made every time a color with the same name is printed.

Saving your Changes

Once you have found and selected your desired color that closely represents your PANTONE color, click *Save* to select the color, and *Save* again in the following dialog to apply the replacement.

This will take you back to the original list, from where you can move on through the out of gamut colors to specify suitable print values for each of them.

Note that once a spot color has been assigned a replacement value, it will show a small pencil icon next to its list entry, allowing you to easily keep track of which colors have been adjusted/replaced.