

SA International

Spot Color Mapping in Flexi



1.1. About Spot Color Mapping

There are 2 different spot color mapping settings in Flexi. One deals with the input values of spot colors and how they will be interpreted. The other deals with the output values of spot colors and how they will be printed.

1.1.1. Global Spot Color Mapping

Global Spot Color mapping handles the input values of spot colors. Spot colors are actually completely name based. Because they are intended to be handled by custom spot color mapping in RIP software, it is the name that is the most crucial part of a spot color.

For display purposes, design software often assign "alternative values" either in RGB or CMYK. RIP software uses these alternative values as a starting point to print the spot color. From that starting point, the output can be further fine tuned in Custom Spot Color Mapping.

However, these alternative values are not always correct. Only design software that has a license for certain color libraries like Pantone TM know the correct values for the spot colors.

With Global Spot Color Mapping, Flexi replaces the alternative values of incoming files with the correct values supplied by the color library manufacturers.

1.1.2. Custom Spot Color Mapping

Custom Spot Color Mapping allows you to map spot colors to exact output values for your specific output device. Mapped colors will always print out using the output values set in the Custom Spot Color Mapping module, overriding any other color management settings.

If you mapped a custom color but don't want to use that particular color mapping for a particular job, you can either turn off all custom spot color mapping or delete the color mapping for that particular color.

Each custom spot color mapping applies to a single color mode on a single output device. To map the same custom color to multiple color modes, you must make multiple custom spot color mappings - one for each color mode.

Custom spot color mapping only applies to jobs in a vector format such as EPS or PostScript. It does not affect bitmaps or JPEGs.

Custom spot color mapping only affects jobs that are added after the color mapping has been added. Jobs that are already queued are not affected.

1.1.3. Enabling Custom Spot Color Mapping

To enable color mapping, check Use color mapping in the Color Management tab of the Job Properties or Default Job Properties dialogs and click OK.

If the same color is defined using both Custom Spot Color Mapping and Global Color Mapping, the Custom Spot Color Mapping settings will override the Global Color Mapping settings. In order to register as the same color, the name and color mode must be identical.

1.2. Creating New Colors in Spot Color Mapping

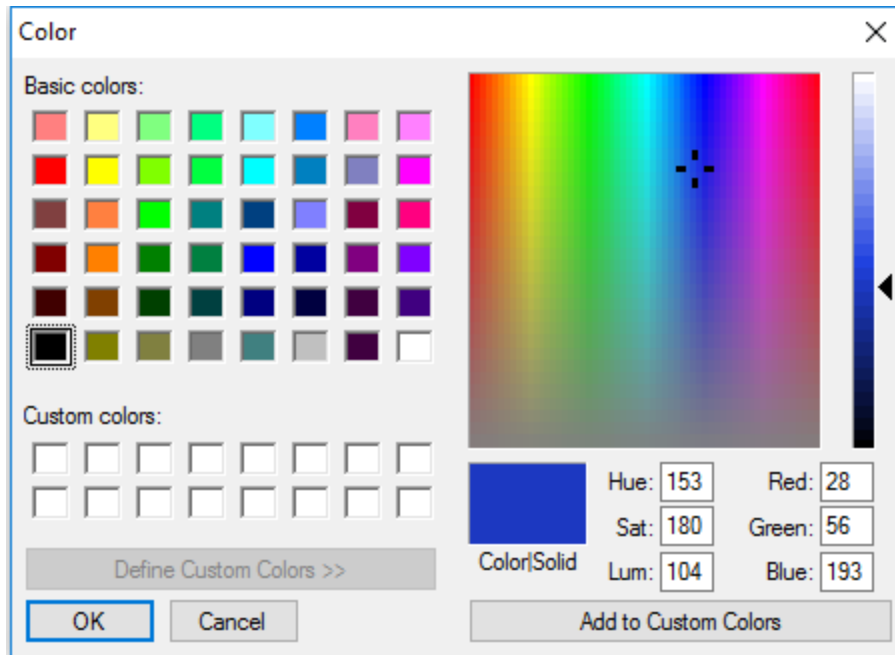
There are a number of ways to create a new color in the custom spot color mapping tool

1.2.1. Importing a file containing spot colors

- » In the spot color mapping tool, click the import button
- » Browse for a PDF or EPS file containing spot colors
- » Click OK

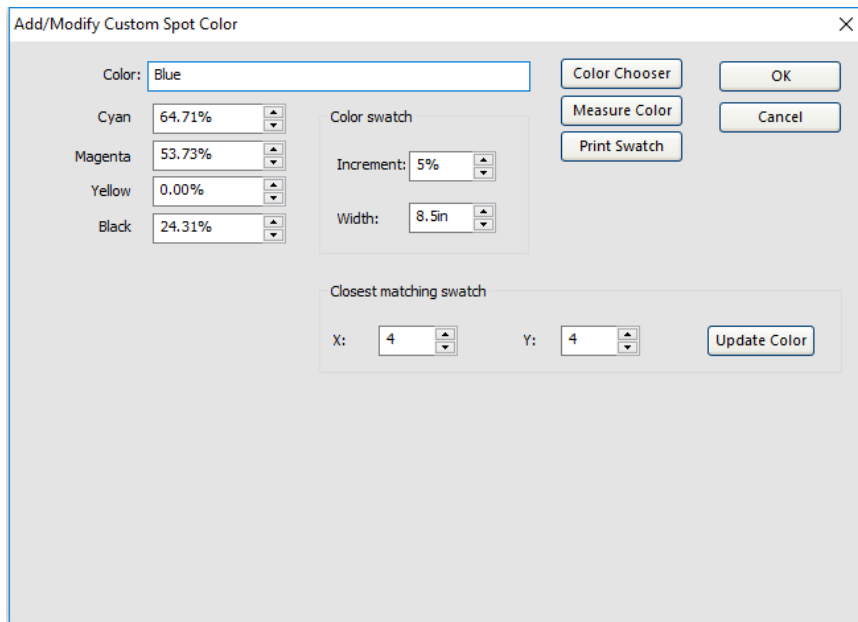
1.2.2. Using Color Chooser :

- » In the Customer Spot Color Mapping Tool, Click New
- » Click Color Chooser



- » Select a Color and click OK



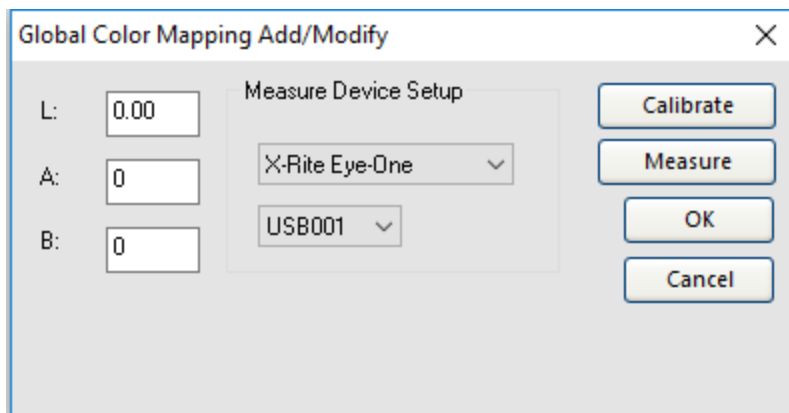


- » Type a name for the color and click OK

1.2.3. Measuring a color with a spectrophotometer

If you have a spectrophotometer, you can measure a new spot color.

- » In the spot color mapping tool, click **Measure**



- » Select your spectrophotometer from the list
- » Click **Calibrate**
- » Click **Measure**
- » Click **OK**
- » Type in a name for your spot color and click **OK**

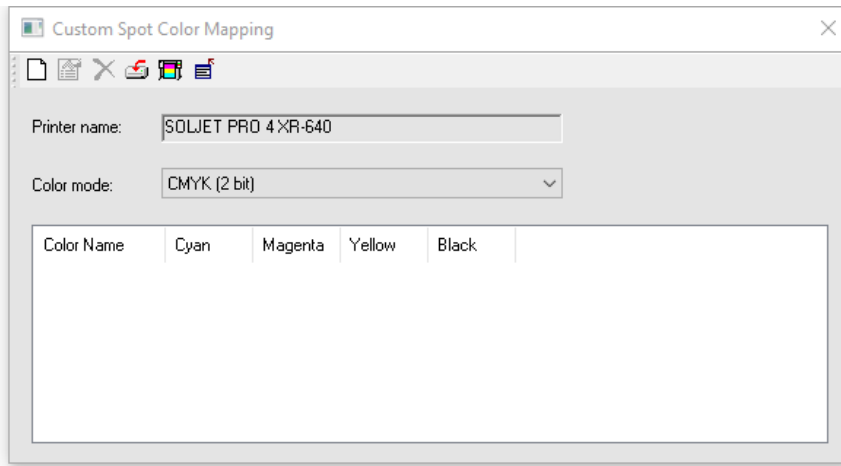
1.2.4. Manually typing in values

- » In the spot color mapping tool, type in a name for your color
- » Type in values for the ink channels
- » Click **OK**

1.3. Custom Spot Color Mapping

To fine tune spot colors :

- » From the **Setup** context menu, select **Default Job Properties**.
- » Select the **Color Management** tab.
- » Click the **Color Mapping** button.



- » Click the **Import** button and browse for a file containing spot colors.
- » If the file contained spot colors, Flexi will recognize them and list them here with the output values calculated by Color Management.

Color Name	Cyan	Magenta	Yellow	Black
Spot_Orange	0.00%	49.80%	100.00%	0.00%
vivid_red	0.00%	93.33%	84.31%	0.00%

- » To modify a color mapping, double click the color in the list



Add/Modify Custom Spot Color

Color:

Cyan:

Magenta:

Yellow:

Black:

Color swatch

Increment:

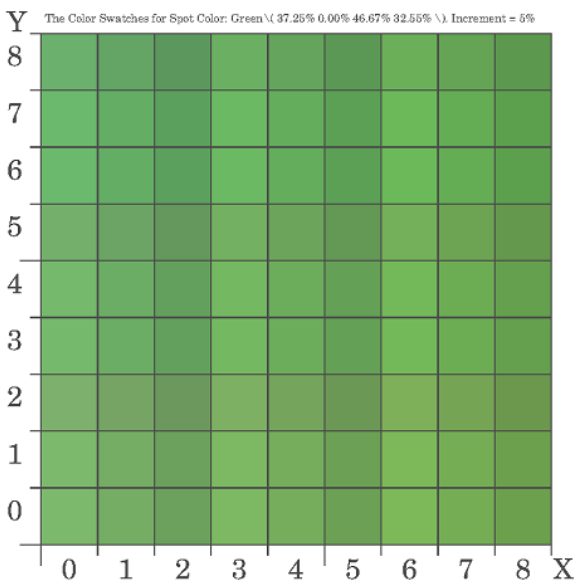
Width:

Closest matching swatch

X: Y:

Buttons: Color Chooser, Measure Color, Print Swatch, OK, Cancel, Update Color

- >> Click **Print Swatch**. This will print a table with variations of the spot color
- >> Select the font to be used with the swatch table



The center color is the original color as calculated by Color Management



The amount of swatches and their size depend on the chosen values for Increment and Width.

- >> Select the coordinates of the color that closely matches the desired color and type them into the **Closest Matching Swatch** fields
- >> Click **Update Color** to update the values.

The output values of the spot color in the list will update according to the selected swatch. As long as this spot color is in the list, every job that contains a spot color with the exact same name as the color in the list will be printed with the new values.

1.4. Fine Tuning Spot Color Libraries

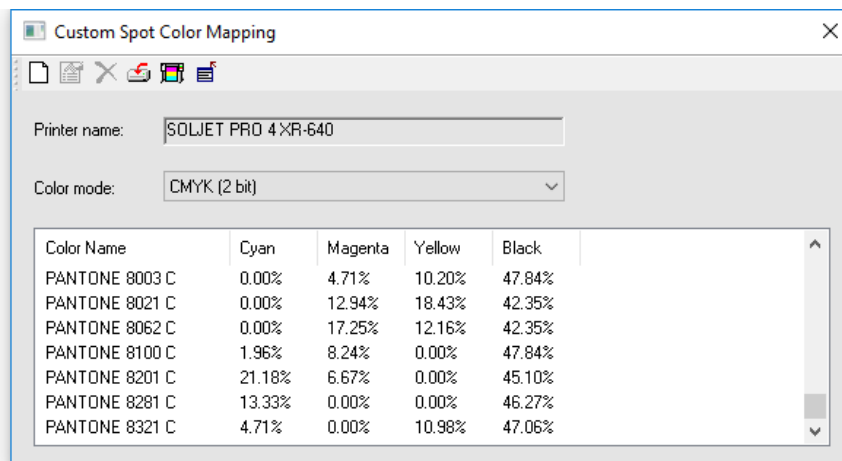
If you often work with certain spot color libraries, it may be useful to fine tune the entire library.

To do so, start by creating a swatch book in Flexi :

- » Open Flexi Designer
- » Right Click the Color Swatches at the bottom and click **Open Table**
- » Browse for the Spot Color Library
- » Click **View, Create Swatch** and **Current Palette**
- » In Design Central, make sure the Spot Color Library is selected. Optionally select / deselect certain colors under **Advanced**
- » Click Apply
- » Export the file to **PDF** of **.EPS** format

Next, import the PDF or EPS file into the Custom Spot Color Mapping tool

- » In Production Manager, open the **Default Job Properties** of your printer
- » Make sure to select the correct color mode that you will be working with
- » If you have an icc profile for the color mode / media combination, make sure it is selected
- » Click **Color Mapping**
- » Click the **Import** button and browse for the PDF or EPS file containing your color library.



All spot colors of the library will be imported into the list, displaying with the values calculated by Color Management

- » Double click the colors one by one to print a swatch table and fine tune the values.



1.5. Metallic Inks and Spot Color Mapping

Metallic inks cannot really be measured with a spectrophotometer and can therefore not be part of an icc profile. Metallic Silver would just register as a gray. Gold would register as a dark yellow.

That is why those inks are handled as "Spot Channels". Spot channel inks are mixed manually with Process colors to obtain a certain effect.

This can be done either by handling them as an overprint - or by mapping the mixtures in a spot color mapping table.

- >> Open the Spot Color Mapping Tool
- >> Make sure a color mode with metallic ink is selected
- >> Import a metallic color library (see [Fine Tuning Spot Color Libraries](#))

Color Name	Cyan	Magenta	Yellow	Black	LCyan	LMagenta	Metallic Silver
RVW-MT-01A	4.71%	0.00%	20.00%	20.00%	0.00%	0.00%	50.00%
RVW-MT-01B	4.71%	0.00%	40.00%	20.00%	0.00%	0.00%	30.00%
RVW-MT-01C	4.71%	0.00%	60.00%	20.00%	0.00%	0.00%	20.00%
RVW-MT-01D	4.71%	0.00%	80.00%	20.00%	0.00%	0.00%	35.00%
RVW-MT-01E	4.71%	0.00%	100.00%	20.00%	0.00%	0.00%	40.00%
RVW-MT-01F	4.71%	0.00%	100.00%	29.41%	0.00%	0.00%	45.00%
RVW-MT-01G	4.71%	0.00%	100.00%	44.71%	0.00%	0.00%	45.00%
RVW-MT-01H	4.71%	0.00%	100.00%	64.71%	0.00%	0.00%	45.00%
RVW-MT-01I	4.71%	0.00%	100.00%	84.71%	0.00%	0.00%	45.00%
RVW-MT-01J	4.71%	0.00%	80.00%	89.41%	0.00%	0.00%	35.00%

- >> Double click the colors one by one to edit.
- >> When a color mode with a spot channel (such as Metallic Silver) is selected, there is an additional field for the spot channel :

Color: RVW-MT-01C

Cyan: 4.71%

Magenta: 0.00%

Yellow: 60.00%

Black: 20.00%

Metallic Silver: 20.00%

Color swatch

Increment: 5%

Width: 8.5mm

Closest matching swatch

X: 4 Y: 13

Buttons: Color Chooser, Measure Color, Print Swatch, OK, Cancel, Update Color

- >> Print a swatch to fine tune the color
- >> Type in the percentage of metallic you want to add



Updating the Closest Matching Swatch will update the process colors only. Spot Channels have to be changed manually



1.6. Fluorescent Ink and Spot Color Mapping

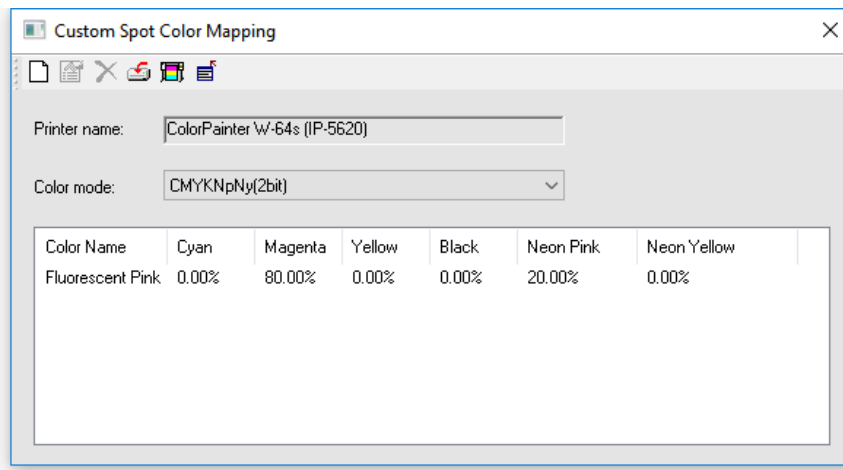
Fluorescent inks cannot be measured with a spectrophotometer. The short version of the reason is that spectrophotometers only measure the reflectance of a color. Fluorescent colors have an additional component: they emit a spectrum of their fluorescent components.

A fluorescent pink would just measure as a dull magenta because the spectrophotometer would pick up on the base color (pink) but not on the fluorescence.

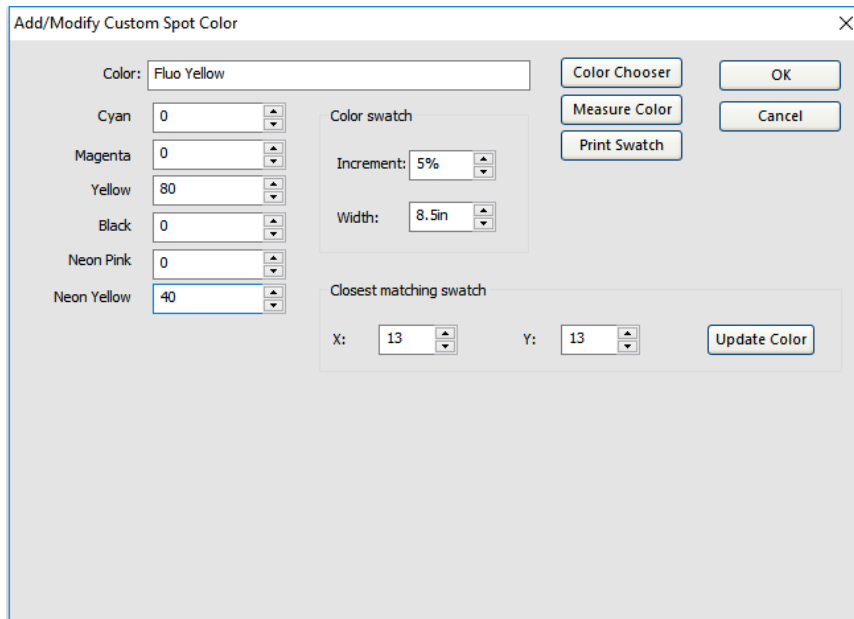
Color Managing Fluorescent colors therefore has to be done via custom spot color mapping. Typically a percentage of fluorescent ink is mixed with its process counterpart. For example by mixing Magenta with Fluorescent Pink.

The best approach is to create a new custom spot color mapping table.

- » Open Default Job Properties of your printer
- » Click Color Mapping
- » Make sure the color mode with fluorescent inks is selected.



- » Click New



- » Type in a name for the spot color
- » Enter the values for the ink mixture
- » Click OK
- » Repeat this for all fluorescent colors



Make sure in your design application to create spot colors with the exact same name to use in your artwork.

