



Ghent  
Workgroup

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## Spot Color Communication

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Head of Product Management, Ultimate Technographics

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Executive Director, GWG

CTO, Four Pees

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# Who is GWG?



An international organization made up of graphic arts users, associations & developers



A cross-section of the international graphic arts community's best minds



## Our Mission

“To develop and maintain process specifications for **best practices in graphic arts workflows** and promote their acceptance and use in the international graphic arts community.”

# Educational members



Fakulti  
Seni Lukis  
& Seni Reka



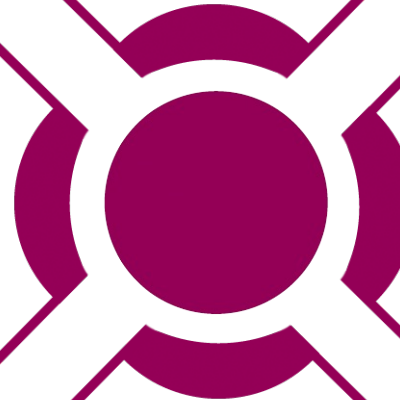
Ryerson  
University



University of Ljubljana  
Faculty of Natural Sciences and Engineering



# Industry members



# Association members

# Our goals

## Be a Premiere Graphic Arts Think-Tank



- Identify issues, share ideas and create solutions
- Unify and standardize PDF creation and preflight settings
- Find better ways to process and exchange graphic art files



# Our goals

Collaborating to help our partners be successful

- Introduce practical workflow tools
- Streamline daily production tasks
- Provide technical background
- Create specifications
- Share best practices
- Develop industry solutions



# Why join the Ghent Workgroup?

- **Learn**
  - ✓ Access a wealth of members-only information
  - ✓ Acquire first-hand information on standards and settings
  - ✓ Get first-hand access to information on new developments in the industry
  - ✓ Join webinars presented by industry experts
- **Network**
  - ✓ Attend 3 member meetings each year
  - ✓ Take part in free international seminars
  - ✓ Have direct access to leading vendor members in our industry

# How can you participate?

- Attend a meeting as an observer

## Upcoming meetings:

June 1st – 3rd 2022	- Novi Sad, Serbia
October 26th – 28th 2022	– Ljubljana, Slovenia
February 22nd – 24th 2023	– Ghent, Belgium

Apply for observer status and attend 2 meetings for free

- Join a subcommittee
- Become a member





## Stay informed

- [www.gwg.org](http://www.gwg.org)
- GWG social media links
  - facebook.com/GhentWorkgroup
  - twitter.com/ghentworkgroup
  - linkedin.com/company/ghent-workgroup





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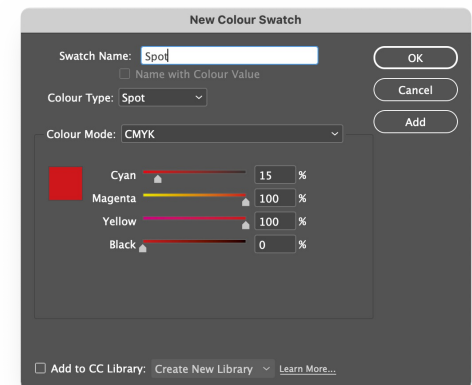
Design

# Creating the design

Customer



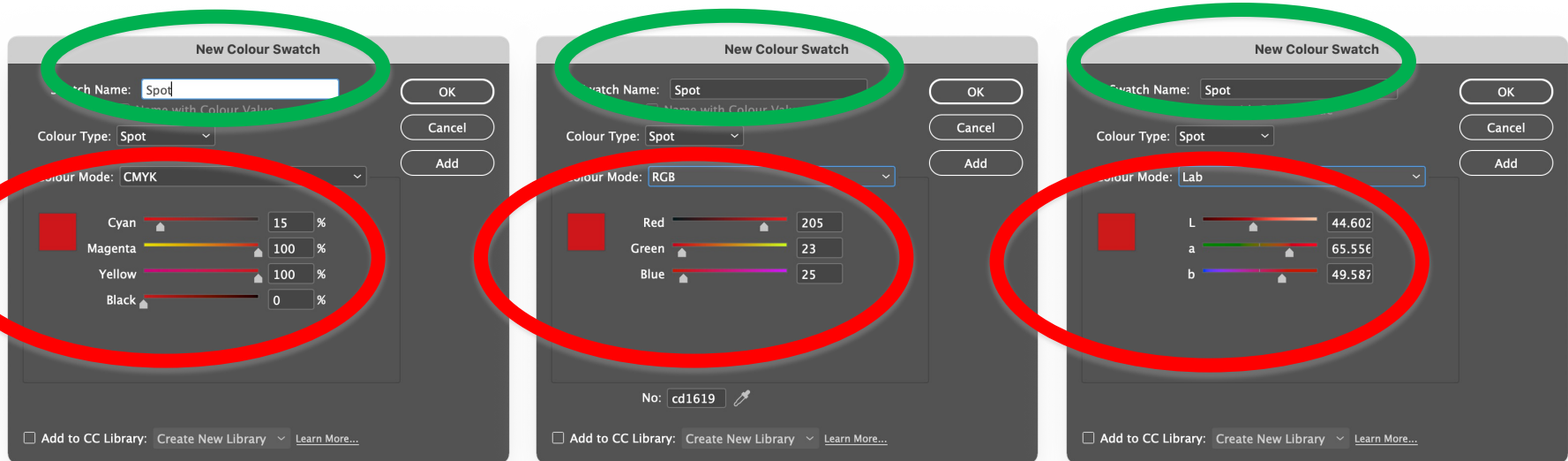
Creative





## Two types of swatches

- “Convenience” swatches that provide a name for a process color
- “Spot” swatches to represent a named spot color
  - The “spot” swatches are what interests us here...

# How Spot Colors work - Swatches



 = Name of the spot color

 = The spot color alternative



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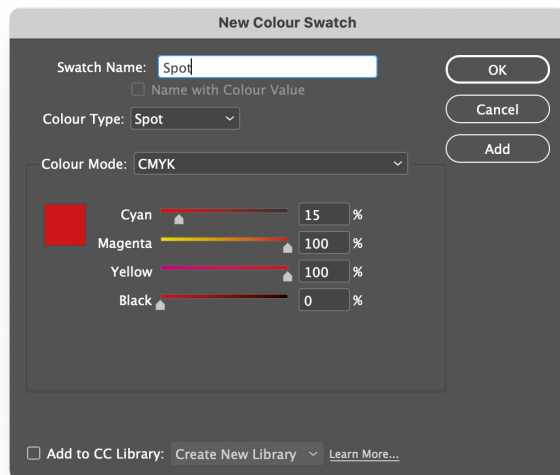
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Production

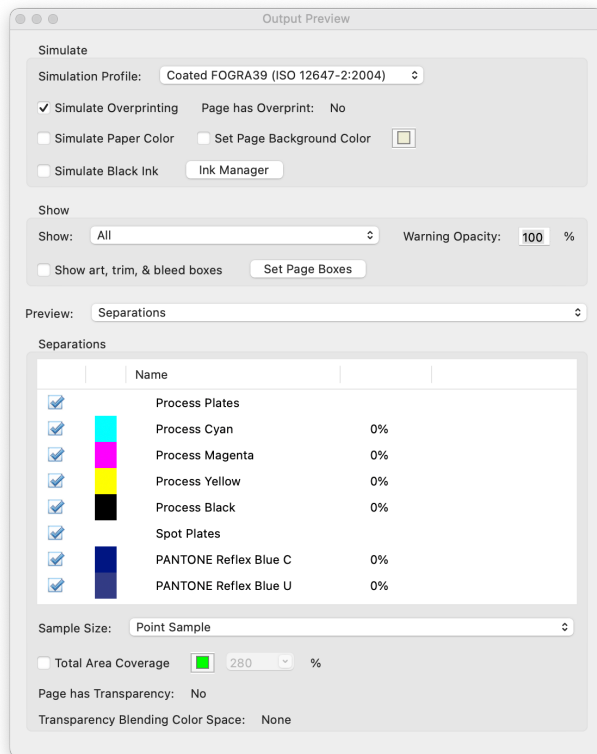
# Printing a spot color...

Printer



- Print using spot colors (special ink/toner mix)
  - Name is important
- Print as CMYK?
  - Name might be important
  - Alternate color might be important

# Print using spot color (special ink/toner mix)



- Name is **super** important
- **Not** the same

- PANTONE Reflex Blue C
- PANTONE Reflex Blue U
- Pantone reflex Blue C
- Very nice blue

(may look the same on screen,  
but will not print correctly)





## Print as CMYK

- Spot color is converted to CMYK... How?
  - Using a look up table in the device
  - Using CxF information
  - Using the alternate color

## Using a lookup table

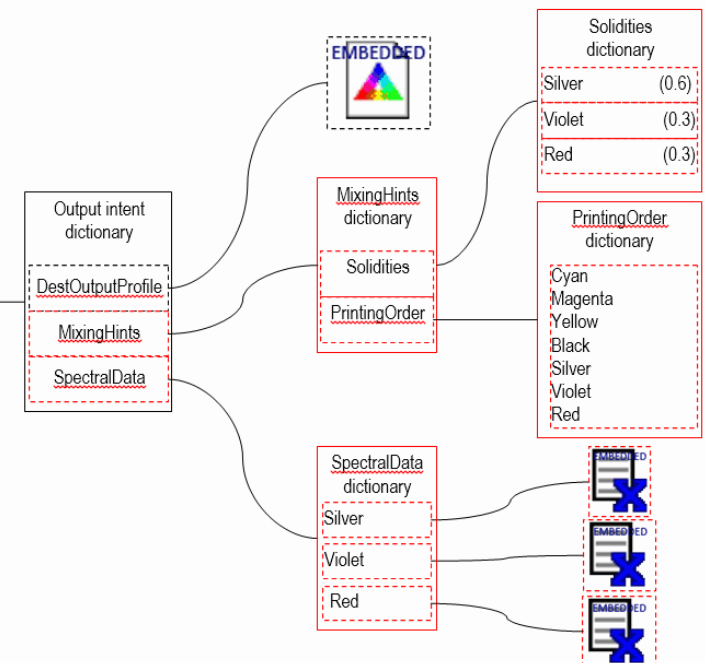
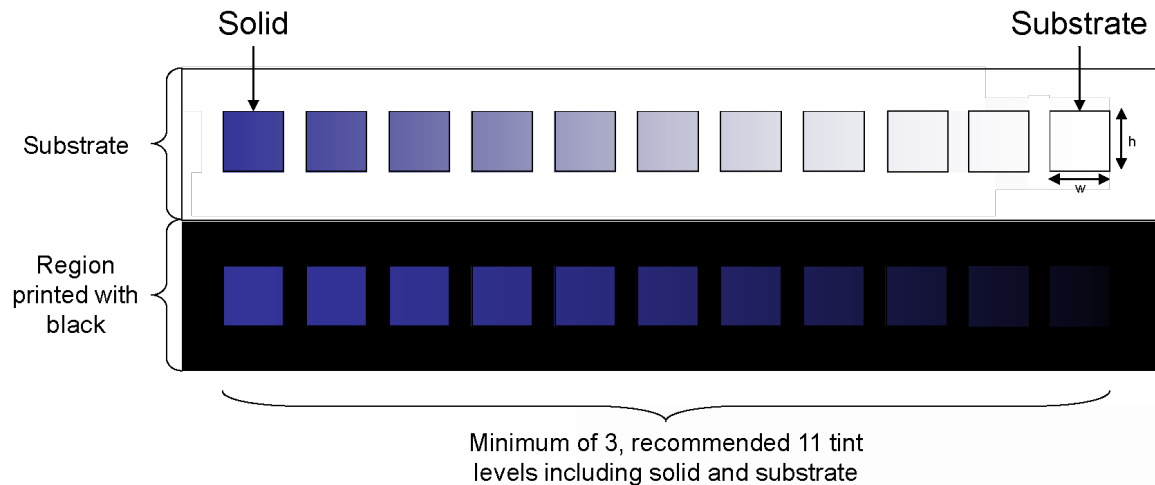
- Software or DFE has a table with spot color names and the “correct” CMYK or multi-channel values
- Spot color name **must** be exact!

Name	Conversion	Value
PANTONE_2592_C	Output Values	0.0 55.8 9.1 0.0 0.0 0.0 78.9 7CLR
PANTONE_7452_C	Output Values (automatic)	SpotColorLibV2
PANTONE_355_C	Output Values	48.9 5.5 85.6 0.0 0.0 81.3 0.0 7CLR
Red	Output Values	0.0 65.3 0.0 0.0 62.1 0.0 0.0 7CLR
Pink	Output Values	0.0 62.0 0.0 0.0 0.0 0.0 0.0 7CLR
Blue	Output Values	81.3 0.0 0.0 0.0 0.0 0.0 0.0 7CLR
PANTONE Dark Blue C	Output Values	0.0 88.8 0.0 0.0 0.0 0.0 100.0 7CLR

## Using CxF data

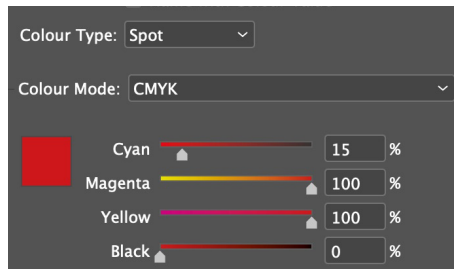
- CxF = Color Exchange Format (ISO 17972-4:2018)
- A standard way to transmit digital information about a color
  - Spectral characteristics of the color
  - When printed over white and/or black
- Increasingly popular with Brand colors (digital master)
- Supported by all major spectrophotometers
- Allows more accurate conversion of the color to CMYK - spot color name **must** be exact
- Can be embedded in the PDF file itself

# CxF (Color Exchange Format)



Source: ICC – International Color Consortium  
[https://www.color.org/CxF\\_test.xalter](https://www.color.org/CxF_test.xalter)

# Using the alternate color

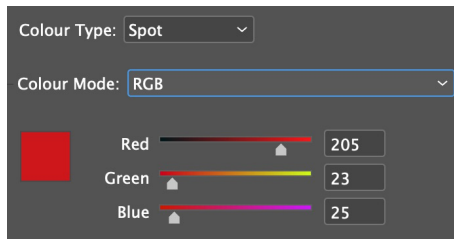


**Converted to Process Color**

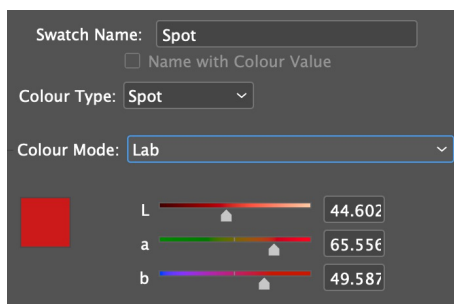


**CMYK**

Cyan 15%  
Magenta 100%  
Yellow 100%  
Black 0%



Cyan 0%  
Magenta 97%  
Yellow 100%  
Black 0%



Cyan 2%  
Magenta 99%  
Yellow 100%  
Black 11%



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Specials!



## Some reserved names

- “Cyan”, “Magenta”, “Yellow” and “Black”  
behave as if the corresponding process color was used
- “All”  
paints on all generated separations
- “None”  
never has any effect on the printed output

## Technical colors

- “CutContour”, “Die”, “Cut”, “Snijlijn”, “Stanze”
- “White”, “white”, “Five”
- Not standardized!
  - Look at Processing Steps ISO standard
  - (using layer metadata for standardization)





# Different color models

- ANPA (American Newspaper Publishers Association)
- DIC (Japan)
- Focoltone (Process Color based)
- HKS (Germany)
- Munsell
- Open Color Standard
- Pantone
- SMS – Spot Matching System
- TOYO (Japan)
- Trumatch



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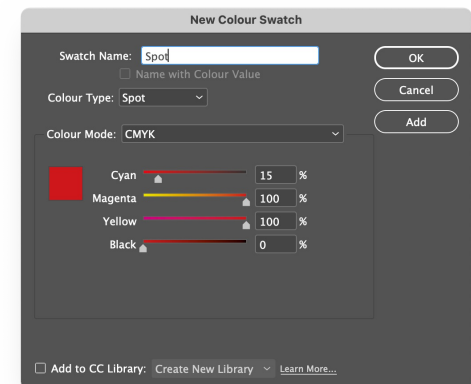
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Advantages of patch collections in software

# Advantages of patch collections integrated in software products

- A color book that shows color in real life...
- ... linked to swatches in software products:
  - With the correct name
  - With ideal CMYK or Lab mixes for reproduction in CMYK





## Caution!

- Your result is only going to be as good as the integrated swatches!
- Very much the same as using a sun-bleached, five-year old paper color book



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So what if you wouldn't have your preferred color  
books integrated?

## Option 1: do nothing

- Keep using color books
- Manually create colors needed for projects
- Communicate requirements with Print Service Providers

## Option 2: create your own color books

- Create color patches within a design/layout application
- Have them printed or proofed to an agreed color management target (ISO 12647)
- These are then the colors to achieve on press

## Option 3: Use a different color model

- There are alternatives as described before





## Option 4: Pantone Connect

- Adobe Extension
- Free or Paid
- Paid – Annual or Monthly subscription
  - Includes 15K+ Adobe Swatches
  - \$7.99/mo OR \$59.99/yr. (per seat)
- Requires an internet connection



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So what about Adobe and Pantone?

## Official Pantone statement

“The situation around the Pantone books in Adobe applications is still under discussion by both parties.

An announcement with a way forward that is good for the industry is expected at some future time.”

# Questions?



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