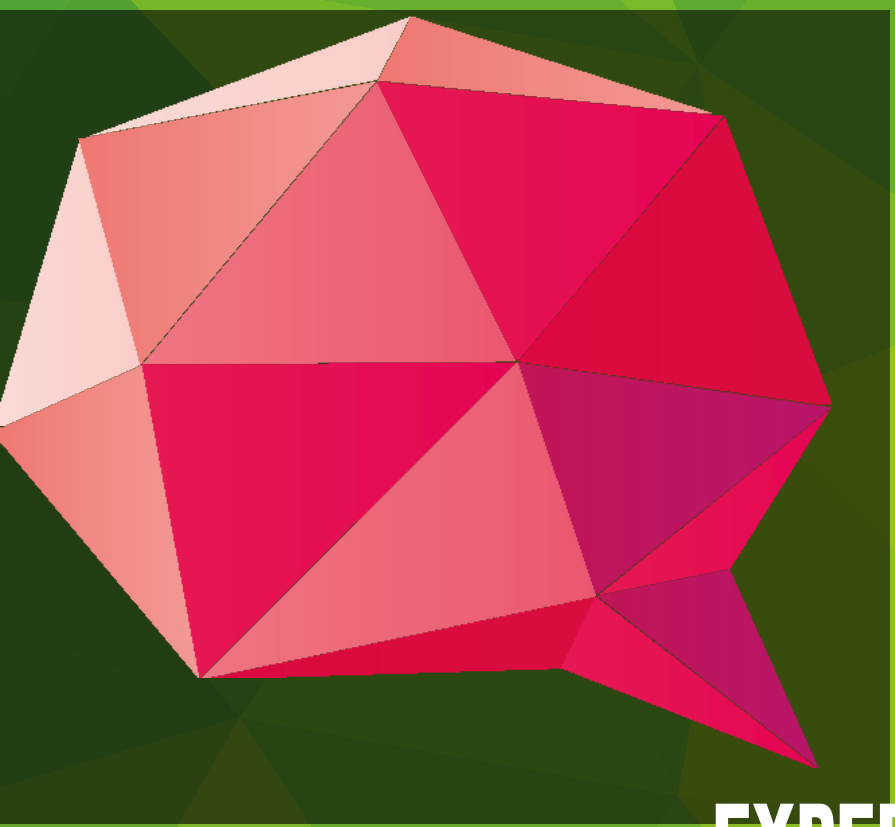

SET 3

JULY 2015

EXPERT TECHNICAL GUIDE

INK

GUIDE 5: INK SAVING TECHNIQUES FAQs

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FREQUENTLY ASKED QUESTIONS

INK SAVING TECHNIQUES

1. WHAT IS GREY COMPONENT REPLACEMENT (GCR)?

GCR is a technique to reduce the amount of cyan, magenta and yellow inks used. It replaces with black ink the CMY components used to create grey tones. This can save money and improve printability and margins.

2. IS THE DATA IMPORTANT FOR SAVING INK?

Ink saving software analyses the data in a page image before the page is printed. It uses this data to work out the optimum amount of each process colour to be printed.

3. WHAT ARE THE MAIN NEGATIVE EFFECTS OF USING TOO MUCH INK?

The sheets will take longer to dry and might never dry properly. This can cause problems in post-press and is an unnecessary expense.

4. ARE THERE ANY DRAWBACKS TO USING GCR?

If applied excessively GCR might affect image quality, with images looking grey or washed out.

5. CAN AN EXTENDED INK SET SAVE ME MONEY?

An extended ink set means that you can print certain colours with a dedicated ink, such as red, green or blue, rather than using a combination of CMYK to achieve the colour. This means you are using fewer inks and saving the cost of at least one of the process colours.

6. WHAT IS UNDER COLOUR REMOVAL (UCR)?

UCR replaces cyan, yellow and magenta used to print black with only black ink. It reduces the overall amount of ink used so that prints dry more efficiently, however misapplied it can also create less dense blacks.

7. WHY DON'T WE USE LIGHT YELLOW IN DIGITAL PRINTING?

In theory a light version of yellow would help to achieve smooth vignettes in highlight areas. But the human eye is poor at detecting the light areas of yellow so there is no real benefit to providing light yellow alongside light cyan and light magenta.

8. WHAT NEEDS TO BE CONSIDERED WHEN CALCULATING GCR AND UCR?

The most important factor is the substrate, and to evaluate the optimum amount of ink to be laid down. You don't want to apply UCR/GCR too severely as this will affect image quality.

9. ARE THERE ANY NEGATIVES ASSOCIATED WITH USING UCR?

Since the near neutral tones are created using CMY, it might be difficult to maintain a correct grey balance if too much UCR is applied.

10. HOW RELIABLE IS FREE INK SAVING SOFTWARE?

The data managment associated with ink optimisation is complex. Ink saving software needs to have been written specifically for professional print production and to manage colour without compromising the printed result's appearance.