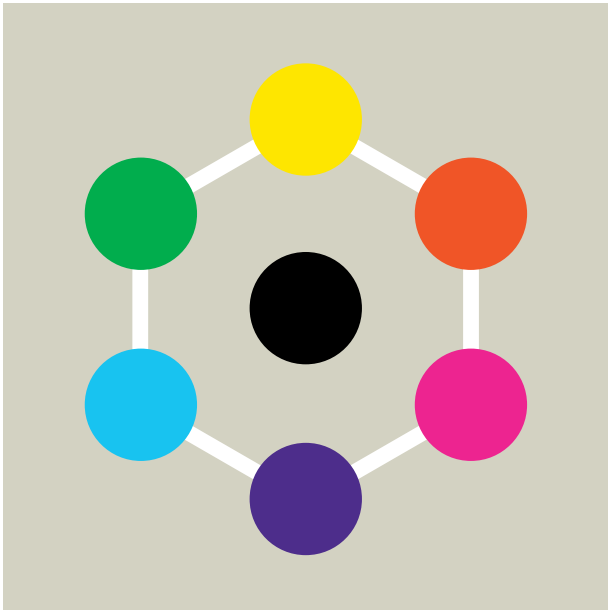


# SunECG

A Solution for Customers Using Expanded Color Gamut Printing



## Introduction

A spot color is traditionally printed as an individual color on the production press, with the specific color matched by mixing individual color base components and then delivered to one station of the production press for printing.

A second method of replicating the desired color on press is by using process colors. In this scenario, the color is achieved by overprinting a combination of the process cyan, magenta, yellow and black inks as the substrate passes through each of the four units on press. However, because more than just one unit/station on the press has to be controlled, there is a greater risk that issues will arise, as any movement or variation on any of these units will affect the final, built spot color.

A further issue is that the gamut of colors that can be achieved by using a combination of four process colors is limited and may therefore not achieve the brand owner's desired color.

To try to increase this gamut, the industry has looked at adding up to three additional colors (orange, green and blue or orange, green and violet) to the process set or having a unique seven-color set. In essence, the more colors that are available to choose to overprint, the more built colors that can be achieved. A number of initiatives, such as Hexachrome and Opaltone, have been developed, but none have achieved industry acceptance or become an industry standard.

With a view to establishing an industry standard, Sun Chemical is now working with Esko, the leading supplier of prepress software, to offer printers and converters a seven-process-color solution. We start by taking you through an audit process to ascertain the status of the presses and processes you have in place and to ensure your process control is of sufficient quality to enable you to run expanded color gamut (ECG) printing successfully.

working for you.

# SunECG

Assuming we're able to validate the press' stability and repeatability, we will then supply an ECG ink set and run what we call a "press fingerprint" on the press.

The press fingerprint exercise will print out many different combinations on overprints, which can then be measured with a spectrophotometer and fed back into the Esko Equinox system, where an ECG profile is created. You can then specify the spot color required and Equinox will reference that profile and state the exact percentage required of each of the seven colors to achieve the desired solid color.

For printers and converters able to take advantage of ECG printing, the benefits are significant, as there is no need to change inks on the press because all of the work is being done in the prepress separation to ensure that the color required is built up across each print station.

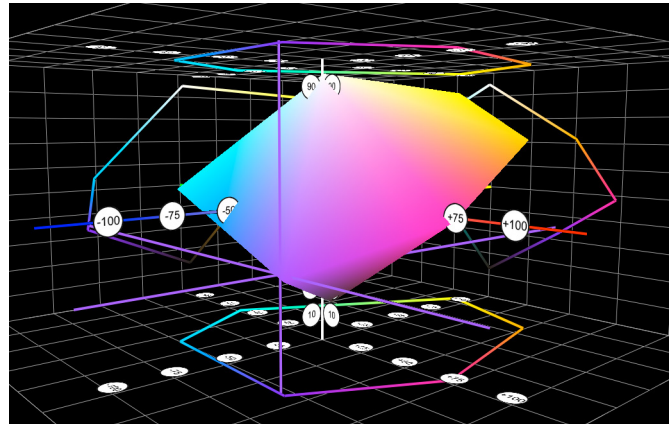
Since the seven inks can be left in the press, the changeover and make-ready time for each new job is greatly reduced, delivering substantial cost savings. Multiple designs can also be consolidated across one web/sheet, so there is no need for individual production runs for different jobs.

An optional benefit of an enhanced color gamut can also be gained in photographic image areas of the print, provided the artwork is still in the original RGB format and has not been compressed to comply with a standard ISO 12647 workflow.

Sun Chemical is developing tools for converters to access their process capabilities to understand the benefits of converting from spot color to ECG printing.

[Get more information](#) on customers who have benefited from Esko Equinox\*.

\*Esko and Equinox are registered trademarks of Esko-Graphics BVBA.



*Sun Chemical has several tools to offer printers and converters a seven-process-color solution. After validating the press' stability and repeatability, Sun Chemical would supply an ECG ink set and run a "press fingerprint" on the press that includes measurement with a spectrophotometer.*

**If you would like more details about any of the tools in the SunColorBox, please contact Sun Chemical at [globalmarketing@sunchemical.com](mailto:globalmarketing@sunchemical.com).**



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