

LabelExpo 2025

Barcelona, Spain Booth #3A12 Sept. 16-19 2025

Printing United 2025

Orlando, Florida USA Booth #2595 Oct. 22-24 2025

Alwan Ushers in New Era of Color Management with Hydra Color Engine

Spectral prediction technology, Hydra, achieves highest accuracy, fastest operations, and lowest costs across all print segments

September 8, 2025 – Lyon, France – Alwan Color Expertise is transforming the future of color management with the Hydra Color Engine, its patented spectral prediction engine now being integrated with a wide range of commercial, packaging, textile, and other specialty print applications. Built to conquer the high costs, long processing times, and unnecessary complexity that have hindered the industry for decades; Hydra requires only a very small number of patches to achieve IT8-level accuracy, and produces less than Delta 1 for spot color matching... in only minutes.



In addition to powering Alwan solutions, Hydra's spectral-based technology is also available for custom OEM integrations with strategic partners.

Flawless Production: IT8-Level Accuracy and < Delta 1 for Spot Colors - in Minutes

Providers can insure their customers of flawless production with Hydra-powered applications. Hydra: 1. reduces hours-long print and measurement sessions to only minutes, due to the very small number of patches it requires; 2. reaches IT8-levels of accuracy in profiling anywhere from 3 to 7 colors; and 3. also produces less than Delta 1 for spot color matching. Hydra is also specifically designed to handle multicolor printing processes, including CMYKOGV, ensuring accurate characterization of the expanded color gamut (ECG).

Additionally, all Hydra-powered products save up to 10% more ink than any other ink saving technology; without compromise to print quality and color accuracy.

The Hydra Color Engine at LabelExpo and Printing United

Visitors to Alwan at LabelExpo (booth #3A12) and Printing United (booth #2595) will see firsthand how print, packaging, textile and specialty printers who use Hydra-powered applications can drastically reduce both the cost and time previously required to achieve the most accurate, predictable color in print and packaging applications. The company is also working on textile color management solutions with an industry partner.

How Color Profiling Has Been Done... Until Now

Conventional profiling uses mathematical interpolation – an estimate based on known data -- to calculate profile tables from measured patches. The more patches that are printed, the more accurate the interpolation. As an example, IT8 charts for 4-color offset presses usually contain 1,600+ patches – requiring multiple hours-long printing and measurement sessions.

Today: Hydra Spectral Prediction

The Hydra spectral prediction engine uses physics to model ink, light, and substrate interaction; and, as a result, is able to calculate profile tables of IT8-level accuracy in just a few minutes, and using a much smaller number of patches.

Other solutions:	Hydra-powered solutions
Offset	Offset
1617 patches (IT8)	40 patches (IT8-accurate)
Flexo 400-1500+ (IT8)	<i>Flexo</i> 48-84 patches (IT8-accurate)
Digital	Digital
1000-3500 (IT8)	84-368 patches (IT8-accurate)

Elie Khoury, Alwan's founder and president, says that Alwan began R&D efforts in spectral prediction over a decade ago. "We knew then what color experts are talking about today," he says. "They are realizing that spectral data is superior to conventional LAB – or colorimetric – color management.

"Alwan is way ahead of the game, with the breakthrough the industry has been waiting for, available now," Khoury says. "Hydra powers the fastest, easiest, most accurate color management... for much less money.

"It's a new day for color."

About Hydra

Accurate, high quality color always ranks at the top of brand owner requirements of their printers and packaging suppliers. In the 30+ years since graphic arts reproduction began

transitioning into a digital discipline, however, advances in color management have been slowed by complexity, cost, and significant time investment.

Alwan Color Expertise has responded to the market's need with Hydra, its patented and award-winning spectral prediction technology available as the Hydra Color Engine. Since its earliest iterations in 2020, Hydra has been called out by industry experts and customers as a turning point in color management for print, packaging, and specialty applications.

A key component of future Alwan solutions, Hydra-based applications now include Hydra Profiling, HydraFix and HydraSpot. Hydra Profiling is also available via Alwan's ColorCloud platform, at https://colorcloud.alwancolor.com.

About Alwan Color Expertise

Alwan Color Expertise was founded in Lyon, France, in 1997 by President Elie Khoury. His vision - to demonstrate how important standardizing and controlling color throughout every stage of production is - has resulted in the company becoming a world leader in standardization and color management implementation. The company's patented core technology, Hydra, is a Pinnacle technology award winner at the heart of Alwan's latest digital print and packaging color solutions.

Today, Alwan provides software, consultancy and training to key players throughout the graphic arts industry, from printers and publishers to software developers and hardware manufacturers. The company also supports university-level color technology programs with donations of its world-renowned applications.

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