Spectral, L*a*b*, ΔE, Density, and Gray Balance control at full press speed

Color Control with SpectralCam is the only inline color control system with L*a*b*, density, and three-color gray balance control for precise color reproduction, improved efficiencies, and easier compliance.

The Baldwin Vision Systems **Color Control with SpectralCam**—featuring technology pioneered by leading international color specialist System Brunner®—is proven to deliver the closest match between proof and production run. This system controls not only solid ink density, but also three-color gray balance, tonality, midtone dot gain and more—ensuring consistent, top-quality color from start to finish.

Unique in the industry, Color Control with SpectralCam achieves much greater accuracy by measuring *true* L*a*b* values from a 31-bin spectrophotometer, rather than *calculating* values from an RGB sensor.

Visual and audio alarms alert operators to errors and out-of tolerance conditions, allowing for prompt resolution and minimum impact on production.

Color Control with SpectralCam's closed-loop control means faster, easier color OKs, reduced makeready time and enhanced productivity. You can now have the unmatched color control and quality you expect, plus the L*a*b*, TVI, and density data you need to support your color management efforts and monitor your adherence to industry standards.

Spectral, L*a*b*, ∆E, Density, and Gray Balance control at full press speed
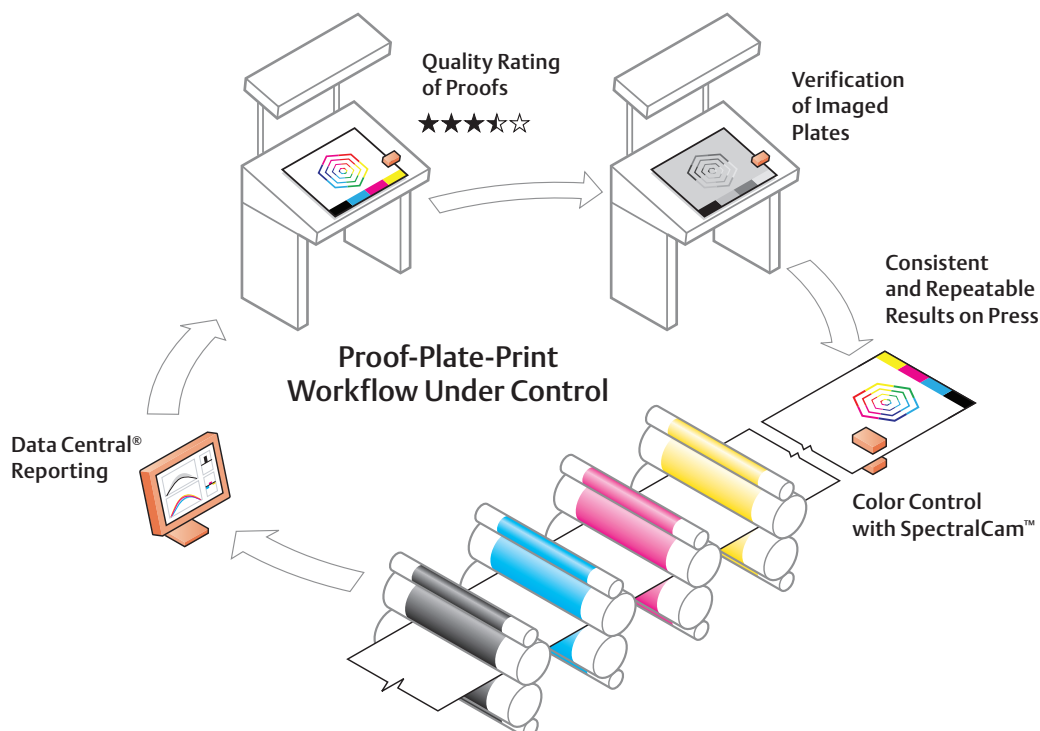
Features and Benefits

- Minimize rebates and reruns with quantified job quality.

- Streamline startup to save time and money.

- Resides on the ICON™ integrated platform, allowing all your Baldwin Vision Systems press controls to share a single user-friendly interface, eliminating re-entry of data and minimizing equipment setup time.

- Real-time display of key print attributes arms your operators with valuable information to assess product quality and press performance.

- SpectralCam's smart spectrophotometer technology enables the system to quickly detect and analyze printed micro color bars at full press speeds.

- Unique in the industry, SpectralCam achieves much greater accuracy by measuring *true* L*a*b* values from a 31-bin spectrophotometer, rather than *calculating* values from an RGB sensor.

- SpectralCam measures up to 12 patches in a single image capture and provides accurate ISO/ANSI Status E and Status T density, dot gain, trap and print contrast measurements.

- Patented adaptive control methodology adjusts the press to maintain accurate control over four-color process and special colors throughout the run.

- Visual and audio alarms alert operators to errors and out-of tolerance conditions, allowing for prompt resolution and minimum impact on production.

- L*a*b* and ∆E values are also calculated and reported when using SpectralCam with our Data Central Colorimetric Reporting option.

- Monitor and improve job and equipment performance with powerful statistical reports on density, dot gain, trap and print contrast using Data Central® Performance Reporting Module™.

- Automate equipment configuration and improve job data integrity using Data Central Automated Setup Module™.

- Expand Data Central's capability with our Colorimetric Reporting option, which offers a variety of reports that include L*a*b* and ∆E information.

Gray balance prioritized control with Instrument Flight®

- Achieve optimal color stability during production by controlling with gray balance, TVI, solid ink densities, and L*a*b* to quickly reach your target presets (G7®, ISO, house specifications).

- Control your color to any of five different balance priority settings: gray balance, ISO/PSO, G7, solid tone balance, and GCR.

- Make all the right moves—precisely and consistently—with Balance Navigator®. Take the guesswork out of manual color adjustments.

- Gray balance control is easier and more flexible than ever using Balance Navigator. You'll be able to achieve product approval for your customers in record time.

- The color or contrast/weight of an entire surface, a selected page, or even individual ink key zones can be shifted to a new three-color gray balance set point with Balance Navigator.

- System Brunner's available Print Consult® Package provides on-site analysis of your entire process workflow—providing calibration support and Instrument Flight training to reach industry standards.

Quality Rating of Proofs ★★★⯪☆

Verification of Imaged Plates

Consistent and Repeatable Results on Press

Proof-Plate-Print Workflow Under Control

Data Central® Reporting

Color Control with SpectralCam™

Controlling Color in Print Production to G7® Specifications— Every Day, Every Print Run

Many print operations already understand the benefits of color management using gray balance as a control factor. And calibrating your press to meet the Idealliance® G7 specification has become a major selling point to earn print buyer confidence.

When calibration is done as a one-time event, most offset press control systems still rely on traditional solid ink density control in print production, with no way of automatically controlling and monitoring G7 metrics to avoid critical color variations.

Rather than thinking of G7 as a one-time calibration event, Baldwin Vision Systems, powered by System Brunner's Instrument Flight software, provides a complete system for **ensuring G7 quality for *every print run.*** You can now use inline color control to continuously monitor and keep every print job within G7 specifications. Instrument Flight technology is the world's very first G7 certified automated press control system.

During the print run, operators can view live performance reporting that tracks G7 conformance through CMY gray balance and tonality values.
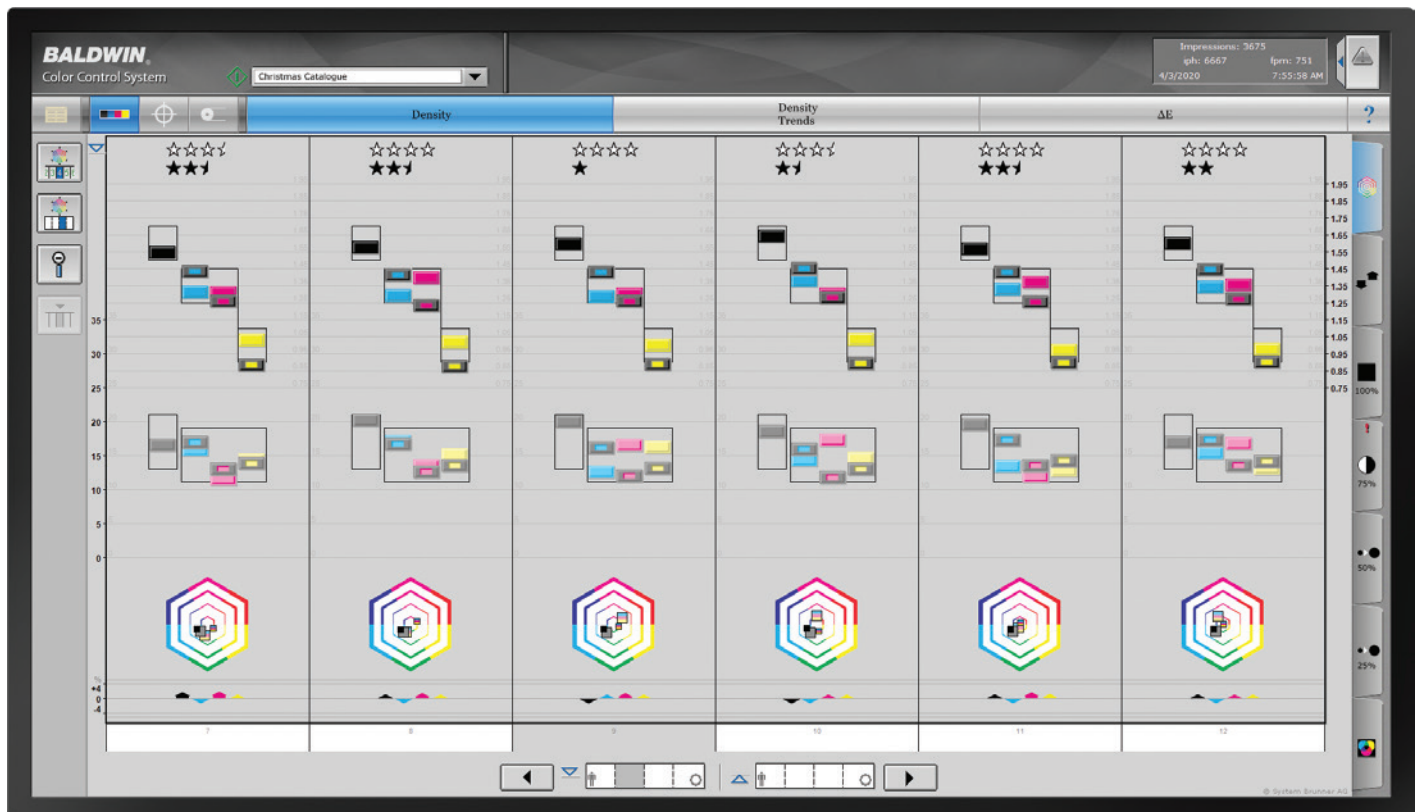

The powerful 5-Star® rating shows not only what can be achieved with the software, but also indicates when better quality can be realized through improvements in other areas of your entire process. The Hexagon® graph shows real-time information about gray balance, TVI, and solid ink densities compared to selected preset standards.

Optimal color consistency, better harmony between human color perception and control software

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Color variations shown above are typical for print jobs—even when the solid tone areas and L*a*b* values are kept constant. The reference image in the center is surrounded by color casts (changes to the color balance and gray balance) that are caused by common print process influences that lead to tone value increase deviations in the midtones of ±4%, and in midtone gray balance of ΔE 6. Such color variations are detected by Instrument Flight, and are **automatically corrected.**
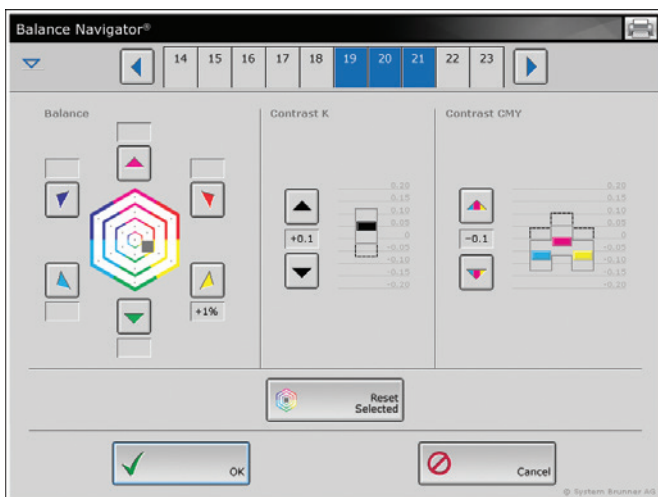
Instrument Flight's **Balance Navigator** feature allows operators to easily make adjustments to the target balance and overall weight of the color, all while in automatic. The system then calculates the proper inking adjustments given the new desired targets.

Specifications

PERFORMANCE
Max operating press speed . . . . 18m/sec (3,500 ft/min)
Webs/print units . . . . 1 or 2 webs, maximum 10 print units
Max web width . . . . 20.75" to 114" (527mm to 2896mm)

SYSTEM REQUIREMENTS
Voltage . . . . 100 - 240 VAC
Current (Max) . . . . . 38A @100VAC, 16A @240VAC (2 web system)
Frequency . . . . 50/60 Hz
Phase . . . . Single phase

PROCESS TECHNOLOGIES
Scanner sensor type . . . . Scanning Spectrophotometer
Color Response . . . . Status T, Status E, DIN and L*a*b*
Light Source . . . . Xenon flashlamp
Scanner transport . . . . Linear positioner
Minimum color bar height . . . . 1.6 mm (1⁄16")

DENSITOMETRIC MEASUREMENTS
4-color process: solid ink density, dot gain, trap, print contrast, solid CMY overprints, midtone CMY overprints, up to 4 special colors per surface

COLORIMETRIC MEASUREMENTS
L*a*b*: 4-color process, 2-color trap, 3-color CMY overprints, up to 4 special colors per surface

ENVIRONMENT
Temperature range . . . . 0° - 55° C (32° - 131° F)
Maximum humidity . . . . 20 - 95% non-condensing from Relative Humidity

INTERFACE CAPABILITY
Ink Desk Interfaces . . . . Most major OEMs

OPERATOR CONTROL STATION
Type . . . . Universal Touch Screen
Operating System . . . . Microsoft® Windows®
Standard Languages . . . . Contact Baldwin Vision Systems

CERTIFICATIONS
UL Approved
Meets CE Standards

OPTIONS
Instrument Flight
Data Central Performance Reporting Module
Data Central Automated Setup Module
OptiGuard™

Contact
Email: visionsolutions@baldwintech.com
www.baldwinvisionsystems.com

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