

## Experion MX Color Shade Change Control



**Experion MX will help improve your business performance in today's challenging economic environment. This fully integrated quality control and process knowledge system provides superior visibility into the papermaking process while it simplifies your operational efforts and is easy and cost effective to maintain and service. Improve paper quality, reduce raw material, energy, services and maintenance costs, and increase production efficiency with a package of solutions that provides the lowest total lifecycle cost available – Experion MX.**

### Model Q5979-50 Color Shade Change Control

Experion MX Color-Shade Change Control is a robust controller that is designed for color-grade changes on the deepest and most challenging colors. With faster and more-successful control of color changes, color scrap losses can be reduced significantly; your business performance will be enhanced by improving product quality and uniformity, and increasing production efficiency.

Before a color grade change, the operator selects from two options for dye ratios that will be used to start the color grade change:

Option 1: Start with dye ratios retrieved from color-grade file or operator-entry.

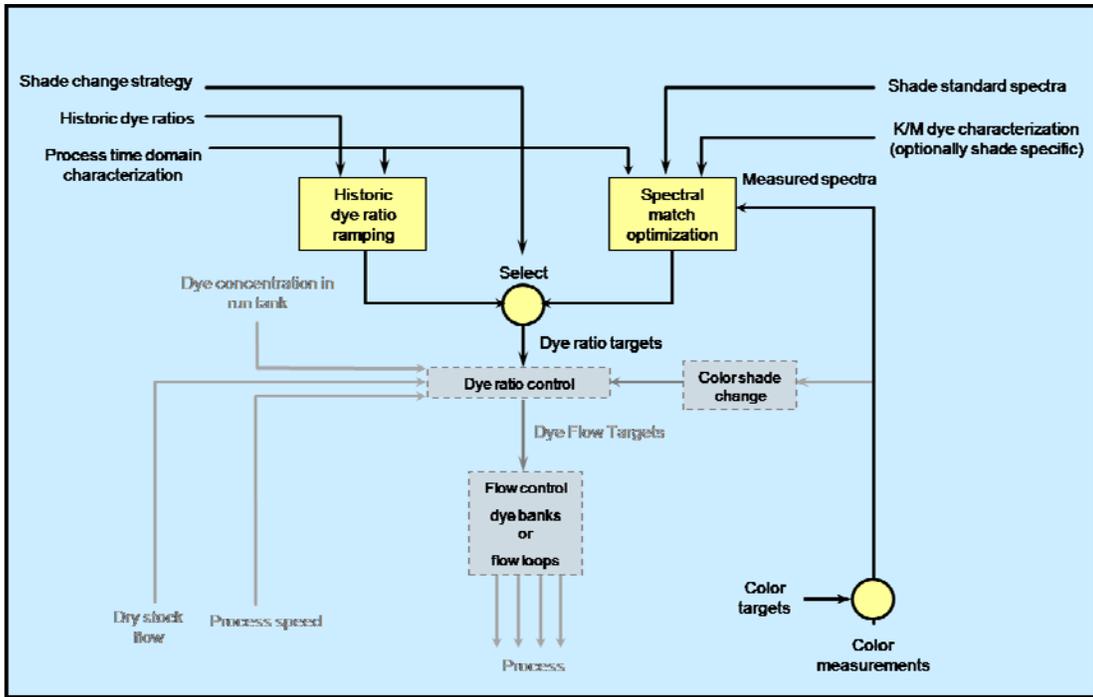
Option 2: Start with dye ratios automatically calculated by the color-grade-change controller, based on the difference between currently measured spectrum and next color-grade target spectrum.

When the color-grade change is enabled, the controller outputs the starting dye ratios for the new grade to the dye metering pumps. The controller then waits a pre-determined period to

allow these dye ratios to transition through the process, followed by a color stability test. If the process color is deemed stable, the current product color is measured and compared to the target color. If the color error is acceptably small, supervisory control is enabled automatically. If the color error is larger than the predetermined limit, the color-grade-change controller calculates a new set of dye ratios, based on the current color measurement and the target color, and outputs these new dye ratios to the dye metering pumps, beginning a second evaluation cycle to complete the color grade change.

### Features and Benefits

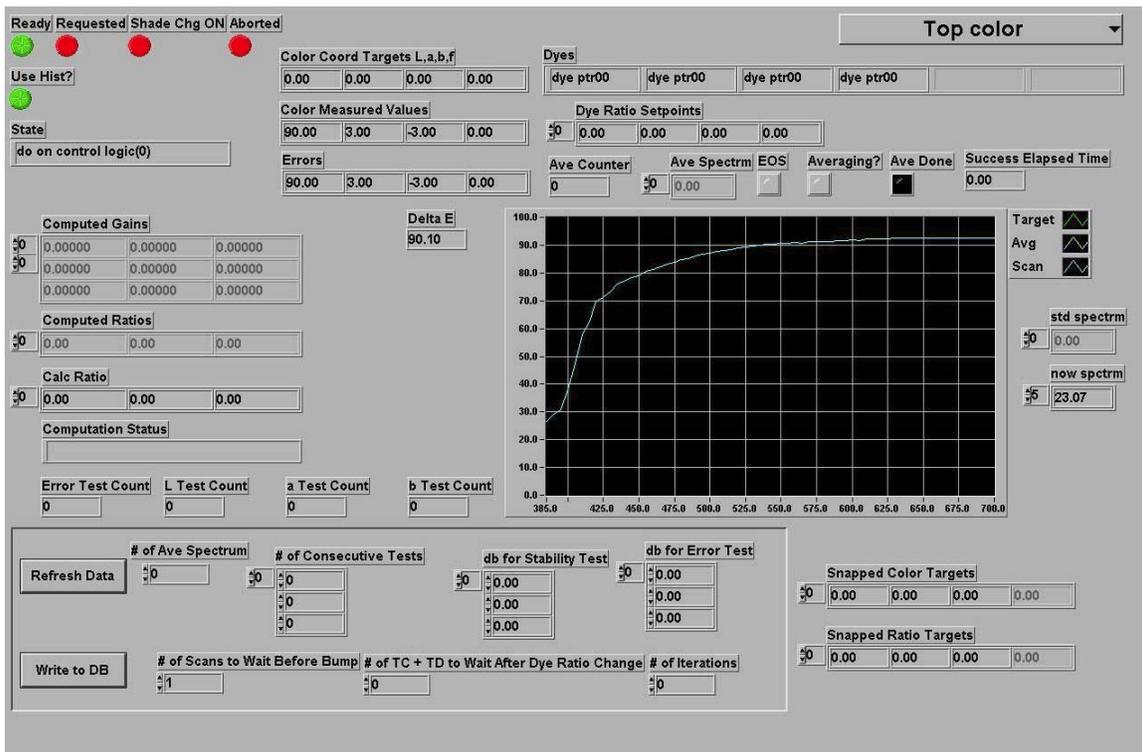
- This approach benefits from Experion MX Color Control's extensive understanding of both the process dynamics (delay time and time constant, both retuned based on process speed) and of the effect of each dye on the product reflectance characteristics.
- Color Shade Change Control requires no tuning other than the existing tuning constants for the supervisory color control, plus three color-grade-independent limit values, leading to greater success of color change functions, and easier addition of new color grades.
- Results of Color Shade Change control typically include a 40 to 50% reduction in color-grade-change times over manual color-grade changes.



Color Shade Change Control Overview

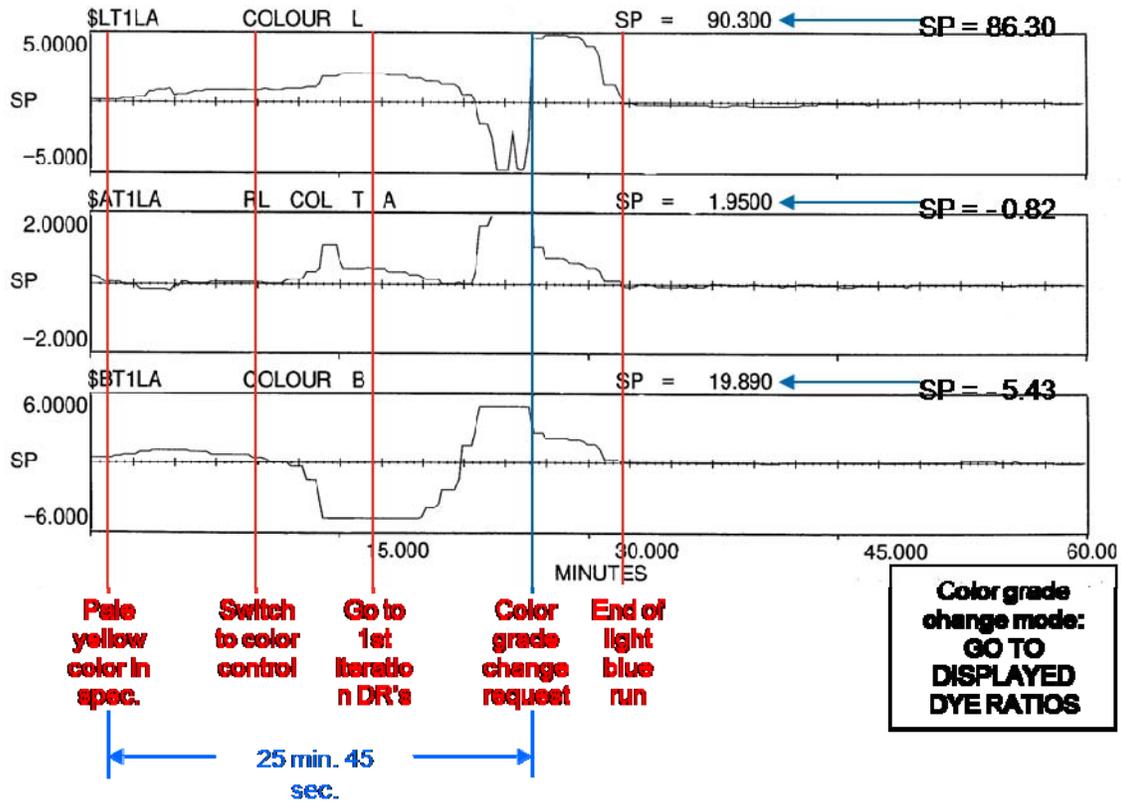
**Diagnostics and Tools**

For the control commissioning and diagnosis, a suite of maintenance and help displays supports the control configuration, tuning and maintenance

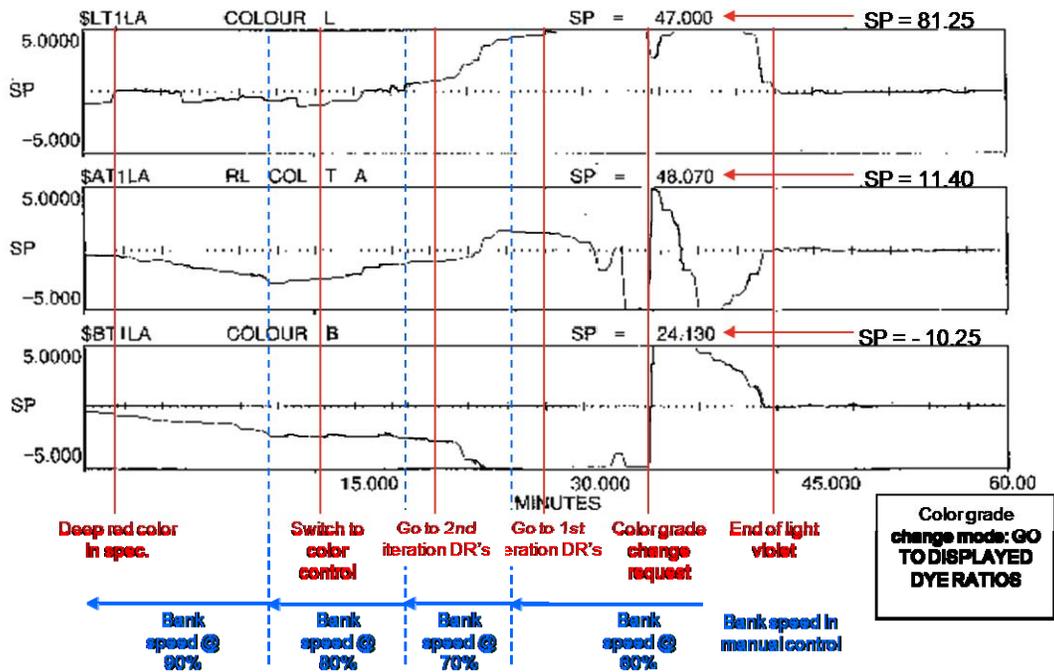


Color Shade Change Monitoring Display

**Results**



Color Shade Change from Light Blue to Pale Yellow



Color Shade Change from Light Violet to Deep Red

## Specifications

### Prerequisites:

Color measurement, Model Q4215-60

Color control, Model Q5976-51, -52 or -53

## More Information

For more information on Experion MX, visit [www.honeywell.com/ps](http://www.honeywell.com/ps) or contact your Honeywell account manager or field service leader.

## Automation & Control Solutions

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