

The Process Metallic Color System by Color-Logic provides a unique solution which enables any designer with the Color-Logic Design Suite and FX-Viewer™ to implement a diverse range of special effects as a first line of defense against counterfeiting. Part 1 of this series describes the basic Color-Logic approach to package and document security. Part 2 of the series describes some of the more sophisticated security elements available in the software.



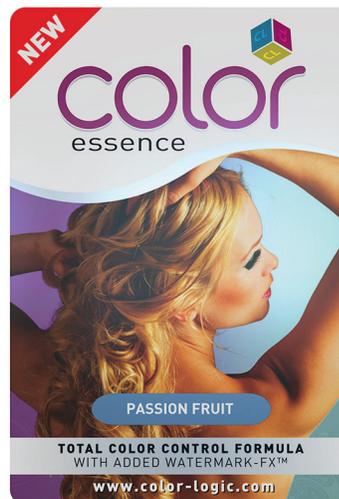
### Gradation-FX™

Traditional spot metallic ink printing is limited to printing as either a solid or a tint. Blending a silver ink into a gold is virtually impossible, due to the opaque metallic pigments used in the inks. With the Color-Logic system, however, a graphic designer can vignette one metallic color into another, or can even vignette metallic hues into process colors. Vignettes of this sort are limited only by the imagination of the designer. Complex metallic gradients—blended into process colors and changing hue across a spectrum—can be integrated into the simplest or the most complex designs. In the example shown to the left, integrated metallic gradients spiral out from the center of the label. This is an effective way of creating designs which baffle counterfeiters.

### Watermark-FX™

The Color-Logic watermark effect can be used to make a selected artwork area seem to vanish and reappear when placed within metallic areas on the design.

In the hair care label shown here, a Color-Logic watermark pattern was embedded in the background. This simple but very effective technique adds an extra dimensional layer to the design. When light bounces off the background, the embedded pattern appears and disappears as the print is moved. The effect is virtually impossible for counterfeiters to achieve.



#### Inactive State

The pattern is invisible



#### Active State

The pattern is visible

## Watermark-FX™ PLUS

The Color-Logic Watermark-FX PLUS feature permits graphic designers to add subliminal patterns, wording, logos, or even complex guilloches to artwork as a “nearly visible” protective layer. This new and exciting special effect also can be used wherever a more subtle metallic effect is desired. Color-Logic Watermark-FX PLUS is particularly effective on highly reflective foil substrates.

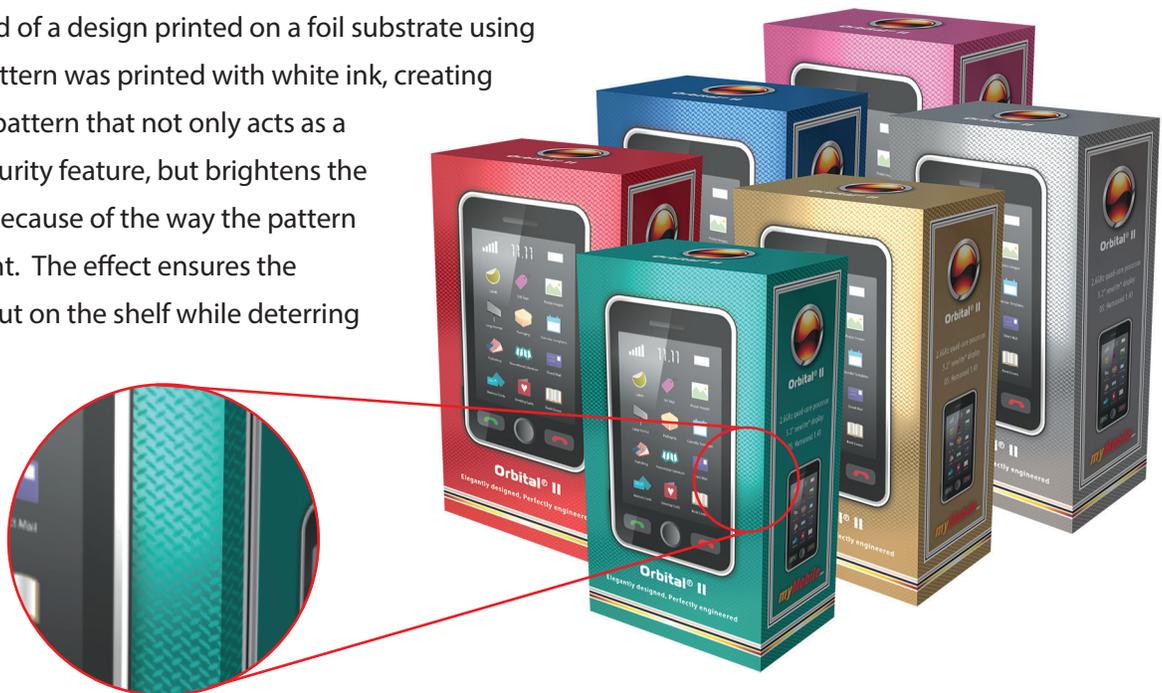


In the Tamper Evident Sticker shown to the left, a subtle metallic watermark was added across the background gradient, creating a colored watermark that transitions from a light purple to a deep red. The effect is virtually impossible to counterfeit.

## Dimensional-FX™

The Color-Logic Dimensional-FX feature enables the graphic designer to make a selected artwork area appear to change color and dimension, from a lighter to a darker hue, as light reflects from the design. This feature provides an additional level of security within a visually stunning design. Color-Logic Dimensional-FX also can be used to place minute patterns in the background of packaging, allowing the designer to create complex, light changing patterns without detracting the viewer’s focal point from the actual product.

In the mobile phone Box shown here, a minute pattern was embedded in the background of a design printed on a foil substrate using white ink. The pattern was printed with white ink, creating a light changing pattern that not only acts as a simple added security feature, but brightens the package design because of the way the pattern interacts with light. The effect ensures the package stands out on the shelf while deterring counterfeiters.



To learn how the Color-Logic system creates the fifth printing plate and how metallics can be used in variable data printing applications, see Part 3 of this series.