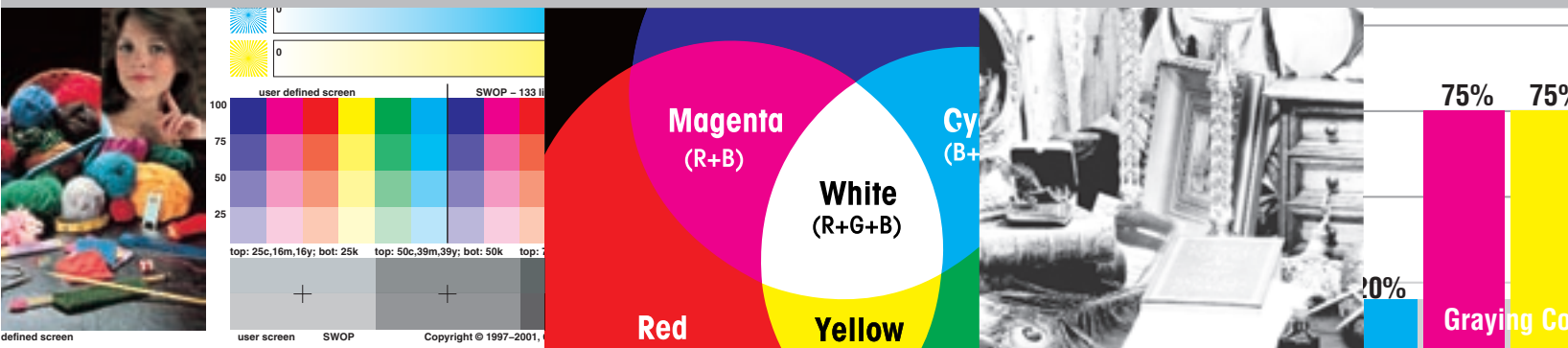




# Process Controls Reference Guide



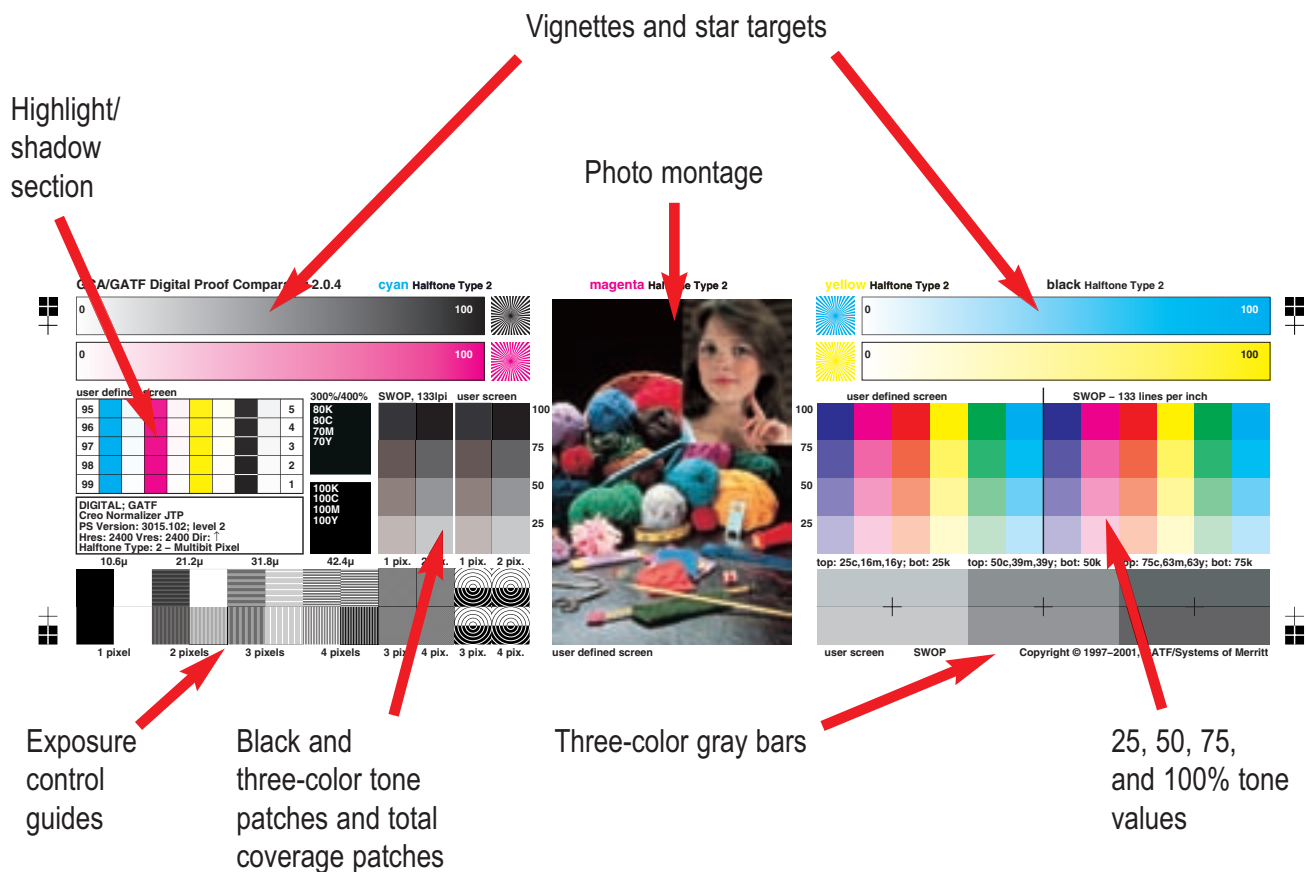
THE APPLICATION OF BEST PRACTICES  
**SYSTEM**



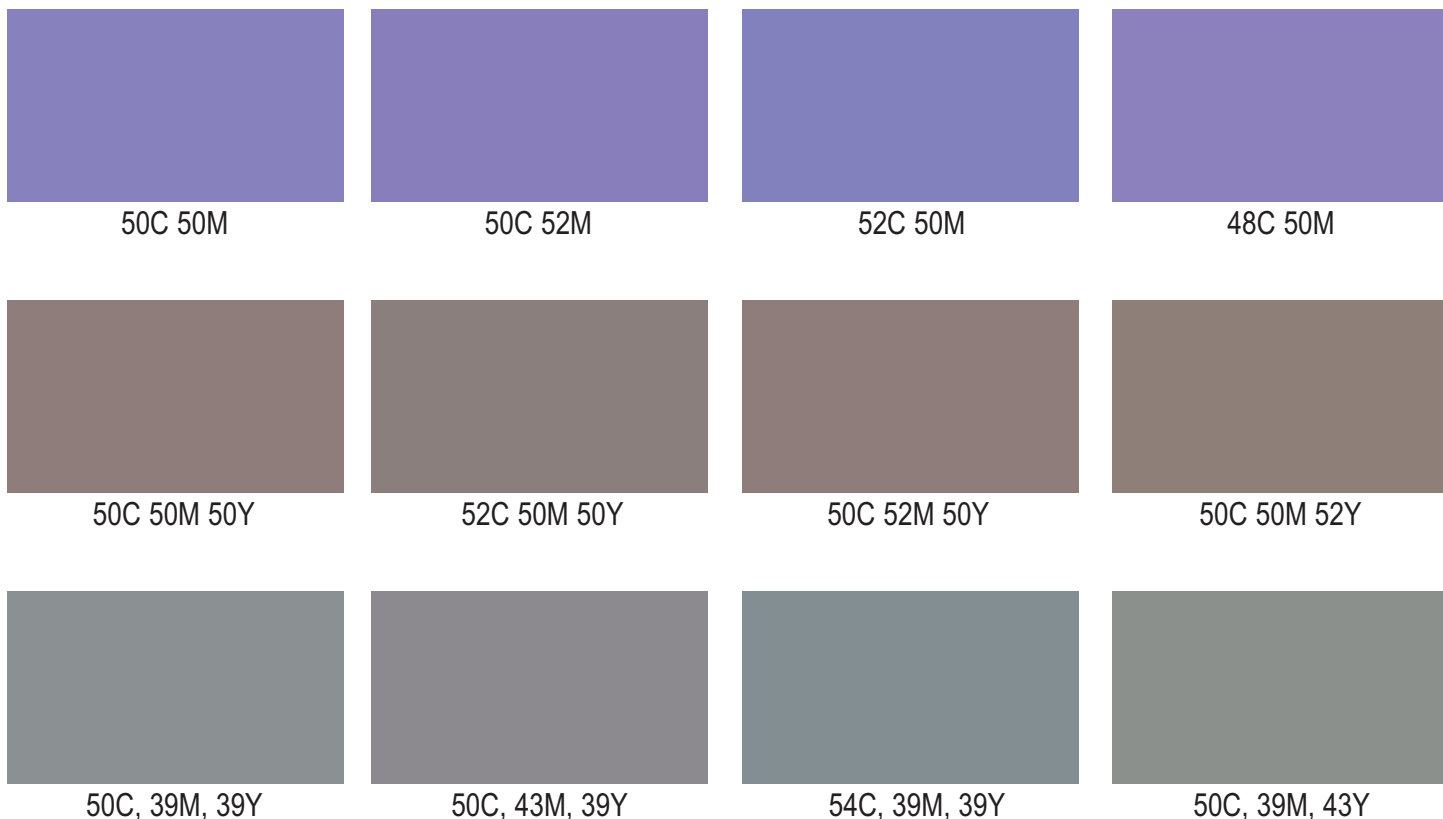
PIA/GATF  
200 Deer Run Road  
Sewickley, PA 15143  
412-741-6860  
[www.gain.net](http://www.gain.net)

For questions or comments please contact:  
Dan Remaley 412-259-1814, [dremaley@piagatf.org](mailto:dremaley@piagatf.org)  
Joe Marin 412-259-1731, [jmarin@piagatf.org](mailto:jmarin@piagatf.org)

# GCA/PIA/GATF Digital Proof Comparator

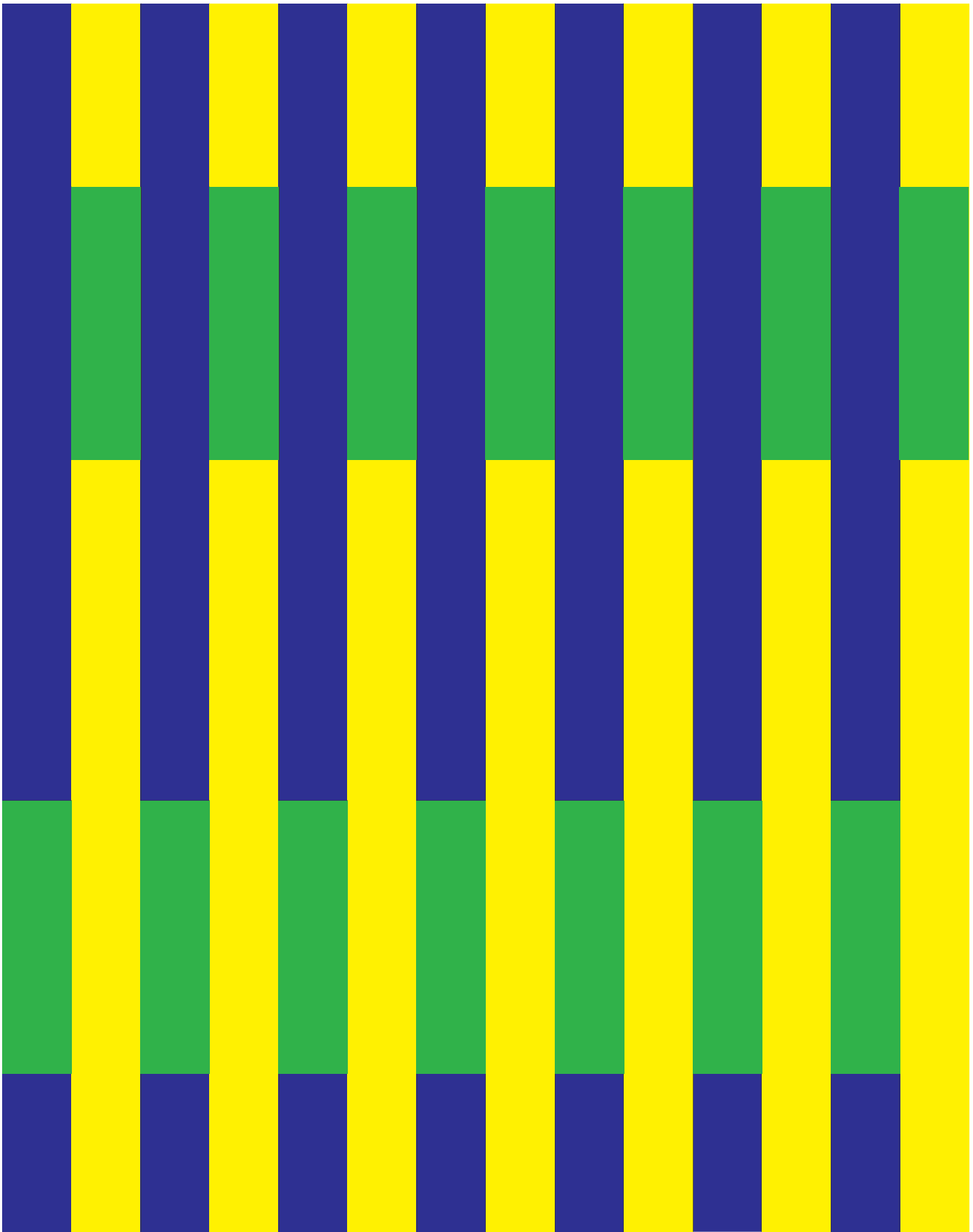


## Examples of color shift



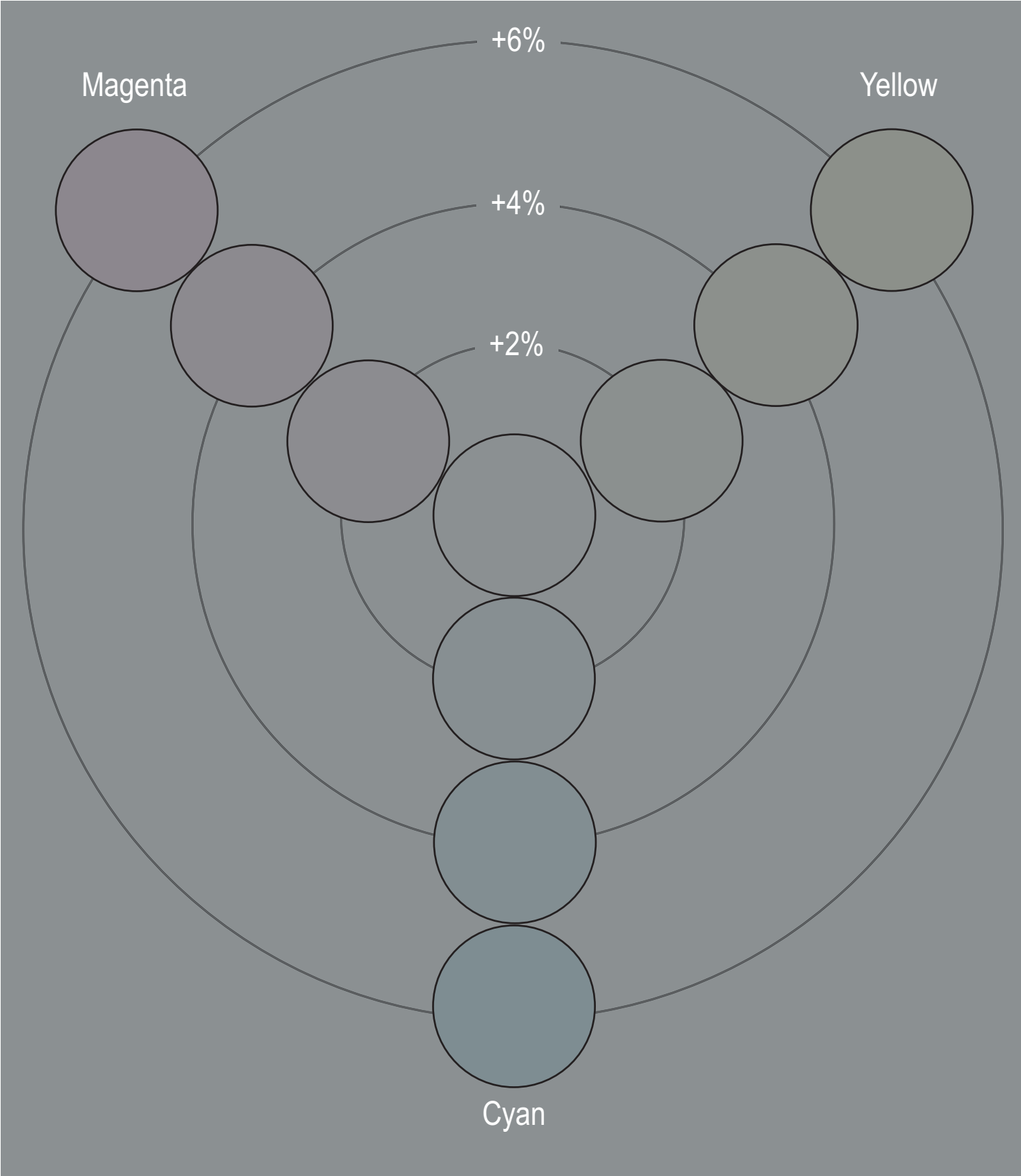
## The effect of the surrounding color

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The green bars appear to be different due to the influence of the surrounding colors.

Gray balance color shifts



Gray balance adjustments



50% C  
43% M  
39% Y



50% C  
39% M  
39% Y



54% C  
39% M  
39% Y

Contrast adjustments



54% C  
43% M  
43% Y



50% C  
39% M  
39% Y



46% C  
35% M  
35% Y

While differences in gray balance are very noticeable (left column), differences in contrast are not (right column).

**Conventional  
Separation**

**355% TIC**



4 Color Conventional



**UCR  
Separation**

**300% TIC**



4 Color with UCR



**GCR  
Separation**

**80% GCR  
300% TIC**



4 Color with GCR







3 Color Conventional



Conventional Black



3 Color with UCR



UCR Black



3 Color with GCR



GCR Black

## Color shift comparison with UCR and GCR separations

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Undercolor removal



Gray component replacement



Undercolor removal +5% magenta in midtones



Gray component replacement +5% magenta in midtones