BestMatch™

x-rite PANTONE®

The quickest way to control and adjust your color. in the pressroom

Before you remix that ink, try X-Rite's unique BestMatch function, available in X-Rite eXact and IntelliTrax.

BestMatch lets you know if you can get a close match to your reference color by adjusting the ink thickness (offset printing) or concentration (flexo and gravure printing) on-press. BestMatch will help you determine quickly and easily whether a satisfactory match is possible.

BestMatch helps you keep the color of your inks on target, even before you can see visible color shifts.

You get density information for the reference and the sample, as well as recommendations on how to adjust the ink to get the best match—all from a single display on your eXact handheld spectrophotometer, eXact InkKeyControl software, or IntelliTrax software. BestMatch is a fast and reliable tool that gives you quick, easy and accurate results. It helps save time and reduce waste, while optimizing your print quality and workflow.

Once you use BestMatch, you'll never want to be without it.

X-Rite eXact

BestMatch Features:

- Works with spot colors and process colors
- Provides both colorimetric and densitometric information
- Indicates closest possible match to the reference based on recommended densitometric adjustments
- Gives adjustment recommendations to increase or decrease density
  - For offset: ink layer thickness
  - For gravure and flexo: ink concentration
- All the information you need is shown on a single display, including density data and recommendations
- Provides quick and easy interpretation of information for go/no-go decisions
- Lets you check ink color during press make-ready and during the print run

When Should I Use BestMatch?

Ink formulation and mixing:

Whether your ink comes from your ink supplier or you have mixed it yourself, it can vary in thickness or concentration. With BestMatch, you can confirm that the ink will meet the color tolerances (ΔE) specified by your customer.

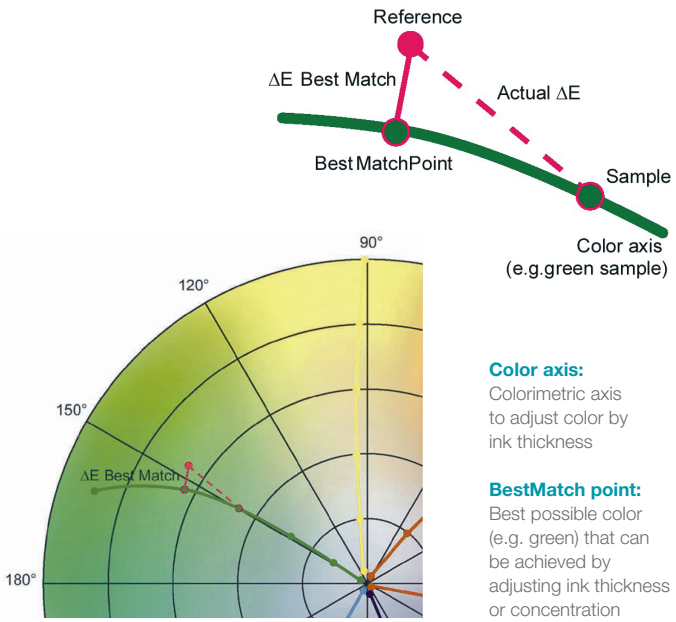
Press setup and print run:

Different factors can affect the print quality from one section of the press to the next. The ink from one section may contaminate the color in the next section. For example, if you lay down black ink before yellow ink, the yellow may become dirty. Using spot color in successive press sections can also result in shifts. If you control the press by density alone, you will not see these shifts in color. Even if you check the color by eye, the color may be considerably out of tolerance before you catch it. Pastel colors are notoriously difficult to control on-press by density alone. With BestMatch you can monitor and correct all of your colors throughout the print run.

BestMatch helps in these very early stages by monitoring not only density, but also by checking the ink color before it drifts out of tolerance so you can correct the problem immediately, rather than continuing to print the wrong color.

How BestMatch Works:

Examine the following example of a green spot color in a two dimensional a*b* diagram:



Color axis:
Colorimetric axis to adjust color by ink thickness

BestMatch point:
Best possible color (e.g. green) that can be achieved by adjusting ink thickness or concentration

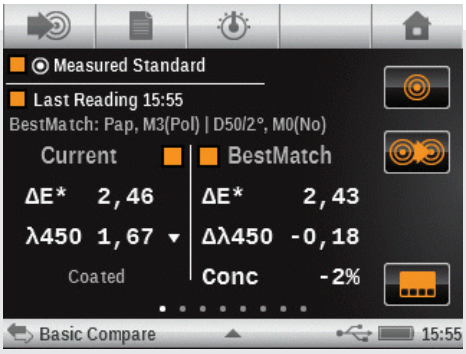
Using BestMatch with eXact

The following are examples of what you would see as results for the BestMatch function in the display of your eXact:

In this example, the display shows two measurements of green:

- The sample has a density of 1.83 at 650nm center wavelength
- Based on the sample density, the ink thickness / ink concentration should be adjusted by D –0.02 / +12% to achieve the best match
- The actual ΔE between reference and sample is 2.85
- If the density is adjusted according to the recommendation, it is possible to achieve a ΔE of 0.40 as the best result
- The “BestMatch” is within the acceptable tolerance (assuming the max ΔE is 1.5)
- The ink is acceptable and the density can be adjusted, so the job is a “Go”

In this example, the display shows two measurements of orange:



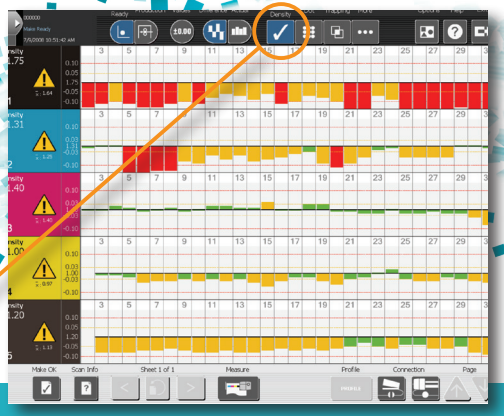
- The sample has a density of 1.67 at 450nm center wavelength
- Based on the sample density, the ink thickness / ink concentration should be adjusted by D -0.18 / -2% to achieve the best match
- The actual ΔE between reference and sample is 2.46
- If the density is adjusted according to the recommendation, it is possible to achieve a ΔE of 2.43 as the best result
- The “BestMatch” is not within the acceptable tolerance (assuming the max ΔE is 1.5)
- The ink is not acceptable and must be remixed, so the job is a “No-Go”

IntelliTrax / eXact InkKeyControl

When should I use BestMatch

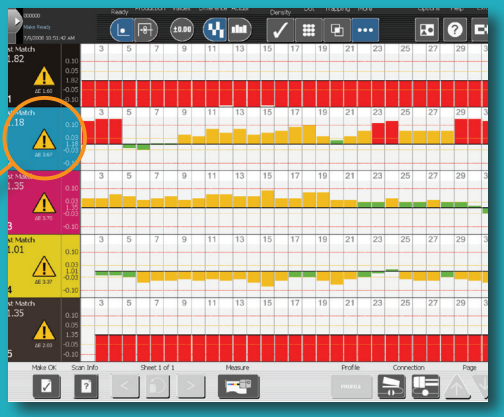
Once you have measured your sheet and you are in the BestMatch screen within Press Tool you can see your BestMatch information.

As you scan more sheets it will take the best ΔE zone and make that the density target for the next scan, then it will take that scan and find the best ΔE zone and use that for the new density target. It will continue to do this until you have a best match for your L*a*b* values that you either keyed in or measured.



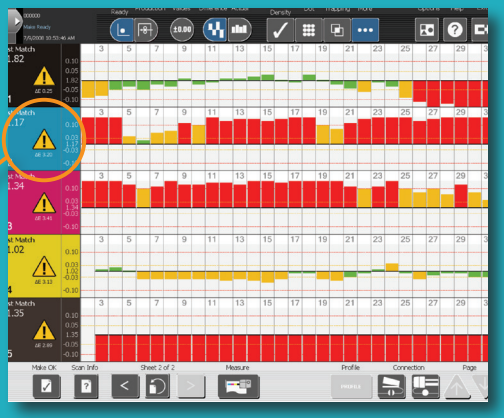
Step 1

View for the job in the Solid Ink Density view.



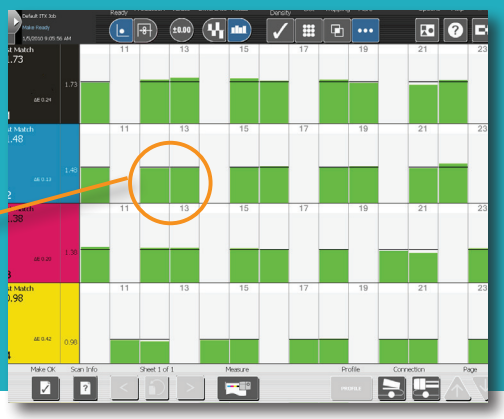
Step 2

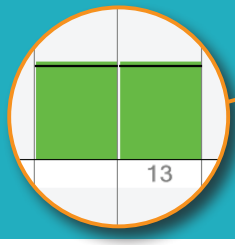
Change to the BestMatch view for the same scan and note the density target value (1.18 for cyan) to achieve the BestMatch ΔE (under the Warning symbol). The BestMatch dE describes the best possible ΔE, if the density is adjusted according to the recommendation.



Step 3

After a further scan, the density targets change again.





Result

Once ink density is adjusted according to the recommended density targets, the BestMatch L*a*b* will be achieved.

Get the most accurate color with BestMatch™

Visit us on the web to learn more about BestMatch at
www.**xrite.**com | www.**pantone**.com

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