

ECM

Tech Brief

How can I use digital color standards with my GretagMacbeth Color iControl system?

Enterprise Color Management (ECM) – a concept that provides the right tools and technologies to simplify color control on a global scale and ensure color consistency among suppliers.

“Digital color standards” refers to the practice of sharing an electronic file containing spectral measurements of one or more color standards. Digital color standards are the easiest and most cost effective method for global brands and their supply chains to communicate color. This paper explores ways in which you can optimize the use of digital color standards using the GretagMacbeth Color iControl System (Color i spectrophotometer and Color iMatch or Color iQC software).

Creating digital color standards:

Let’s look at a general case of using color standards.

- A product designer finds an example of the desired color. The example may be of any material such as a flower or fabric, and is considered the inspiration for the color.
- The manufacturer’s color lab creates one or more samples of this color using the material from which the final product will be made. When the designer evaluates the manufacturer’s samples, s/he may accept or reject it,

depending on how the product is intended to be used and marketed.

- When the designer accepts a laboratory sample, this usually becomes the color standard.

Communicating digital color standards

Now that the designer has a standard, it’s possible to share the standard with additional suppliers. Here’s how it works...

- The original lab sample is measured on a Color iControl system and the color data electronically transmitted to as many suppliers as needed.

The suppliers have received the digital color standards and have created samples or obtained samples from their manufacturing sites. Now we need to judge the acceptability of the samples based on how closely they match the original color standard. Here’s how it works...

- The supplier measures his/her sample and transmits the color data electronically to the designer/customer. The designer/customer performs a preliminary assessment, and if the match is acceptable, then asks the supplier to mail the actual sample for final approval. Or...

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- If the supplier has a history of high quality color matches and has previously been authorized to self-approve, then the supplier can notify the designer/customer of the acceptable color and schedule production – all without the delays of mailing physical standards or samples between the designer/customer and supplier.)

Sounds great! What's the catch?

Digital color standards must be measured with the following parameters under control:

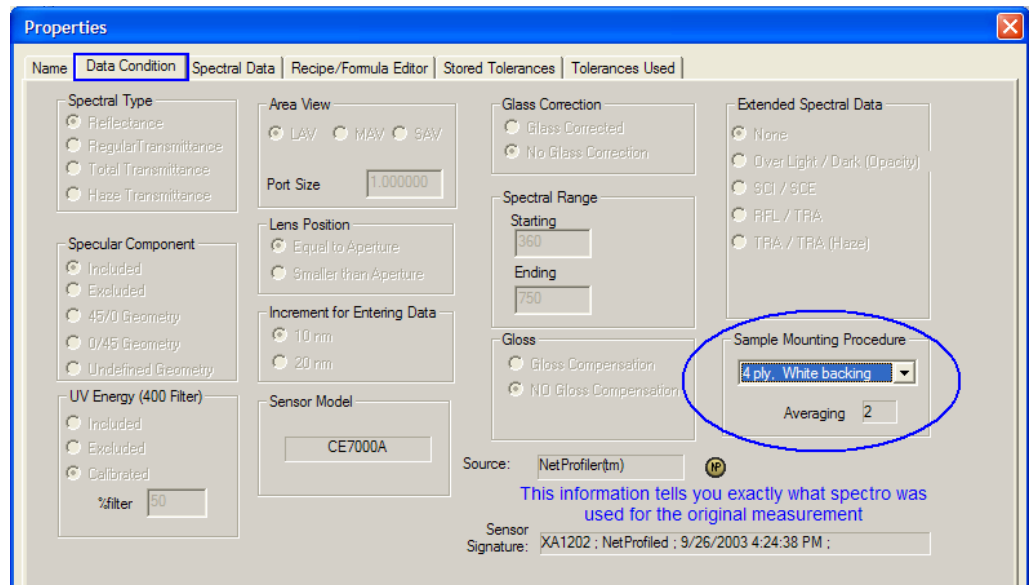
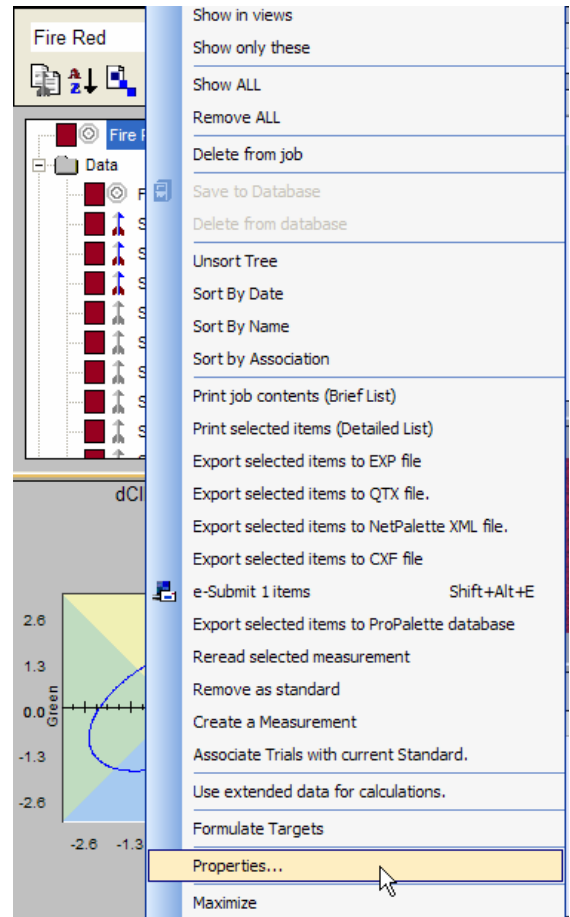
- Sample presentation (i.e. how many layers, what backing material, what size aperture, what specular condition, UV energy included/excluded/or calibrated, temperature and humidity of lab environment, etc.).
- Instrument calibration and profiling - NetProfiler should be applied to all sensors involved in electronic data sharing.
- Parameters for color assessment (i.e. illuminant, observer, color space and color difference formula, etc)
- File format for electronic transfer (e-mail, XML, format of file if e-mailed, additional fields for business information, etc).

Careful definition, documentation, and compliance with shared procedures will result in measurements that support a well-managed digital color standards program. In addition, these measurements are more durable than actual samples: they do not fade or change over time, and they can be infinitely copied and shared with supply chain partners.

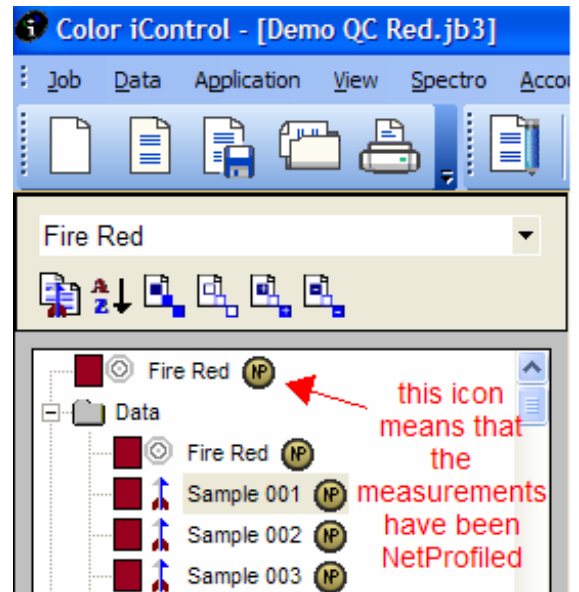
*Careful definition,
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Sign me up! Exactly how can I do this?

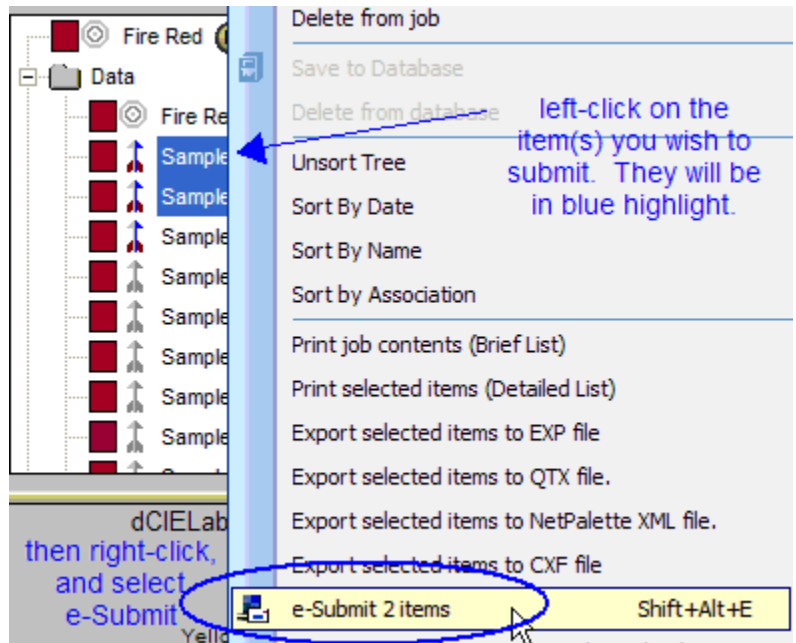
Using your GretagMacbeth Color iControl System, right-click on your standard, select "Properties" from the drop-down menu, and take a look at the "Data Condition" tab. The proper sample presentation procedure will be indicated, if the system manager chose to store it with the standard.



And, you can easily see at a glance if all of your measurements have been NetProfiled.



Sending data electronically is this easy:



Now, you're ready to use digital color standards and electronic data communication to speed your color approval cycle.

Call 866-285-3463