

ECM

Tech Brief

How can I use Best Practices 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.

“Best Practices” refers to a system of defining, documenting, and complying with agreed-upon procedures which are shown to support rigorous data and assessment tools. For color measurement, establishing Best Practices requires you to consider several factors:

Standards organizations whose methods and standards can guide you in best practices for your industry. Whenever possible, you will want to refer to existing standards, instead of writing your own. This leverages the strengths of known, published methods, and improves the ability of your partners to comply with your Best Practices.

- ASTM (American Society for Testing and Materials) <http://astm.org>
- AATCC (<http://www.aatcc.org/>)
- SAE (Society of Automotive Engineers) <http://automobile.sae.org/>
- SPE/CAD (Society of Plastic Engineers, Color and Appearance Division) <http://www.specad.org/>
- ISO (International Organization for Standardization) www.iso.org
- and others.

Instrumental measurement parameters will need to be defined for your applications.

- Sensor geometry (45/0, sphere, or other)
- Aperture size
- Specular reflectance included or excluded
- UV energy included, excluded, or calibrated (calibrated is preferred for many industries)
- NetProfiler Certified within 30 days
- Color i7, CE7000A, and Color i5 are frequently selected as part of Best Practices programs.
- Sample presentation parameters also need to be defined, including:
 - Sample thickness or number of layers
 - Backing material if samples are not opaque
 - Temperature and humidity of sample and ambient conditions

Color measurement system parameters can also affect your results, and need to be defined. Colorimetric values will be calculated from spectral measurements using consistent:

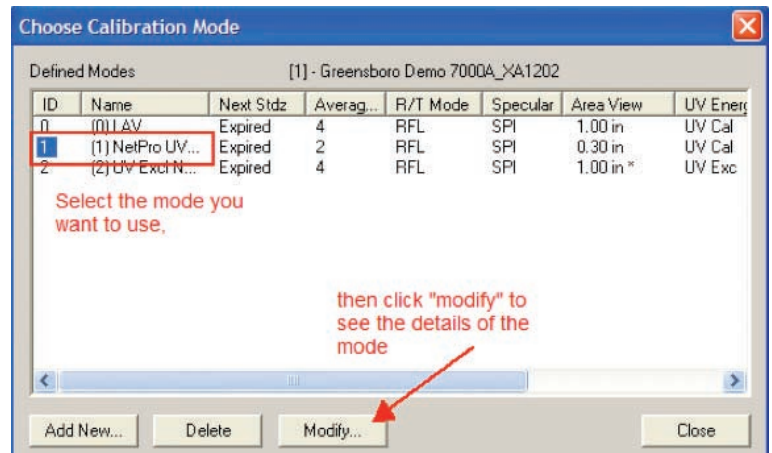
- Illuminant (D65, TL84, U3000, F02, etc) and observer (2 or 10 degree)
- Color space (CIELAB or other)
- Color difference equation (DE*, DEcmc, CIEDE2000, etc)
- All of these are supported by Color iControl products.

Whew! ... that's a lot to keep up with! How can you keep it all straight, especially if you have customers with differing requirements?

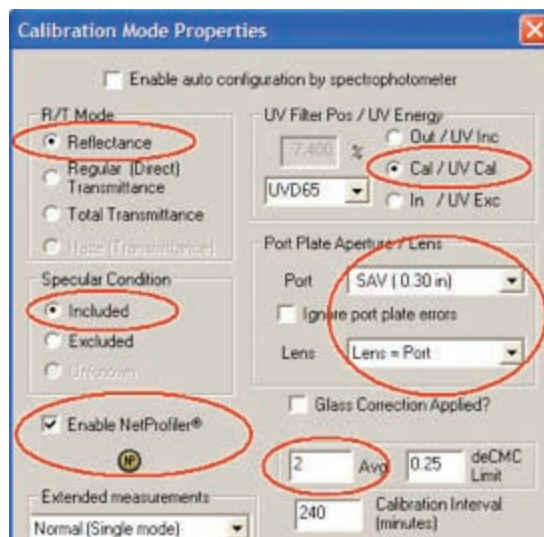
Actually, Color iControl makes it easy. Here's what you do.



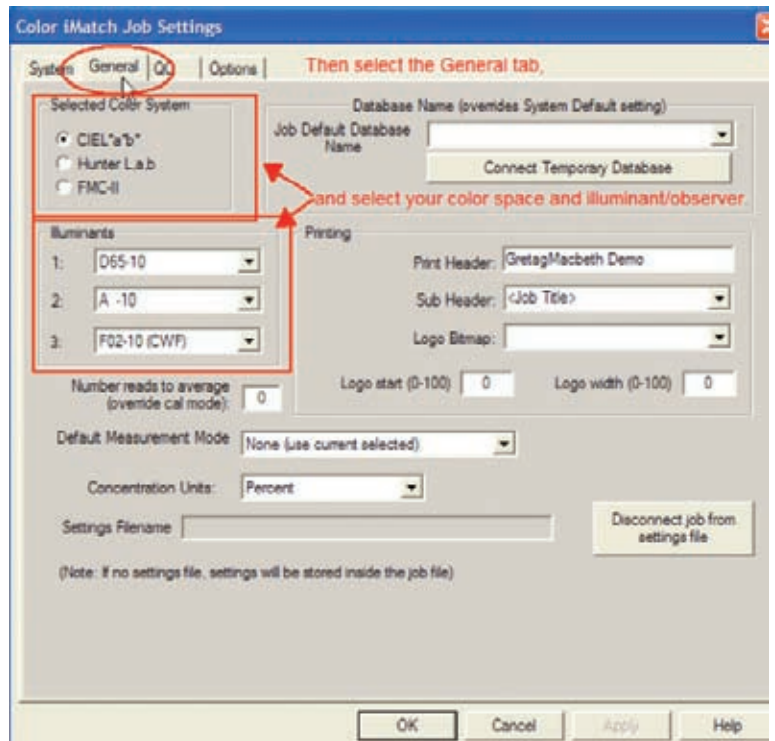
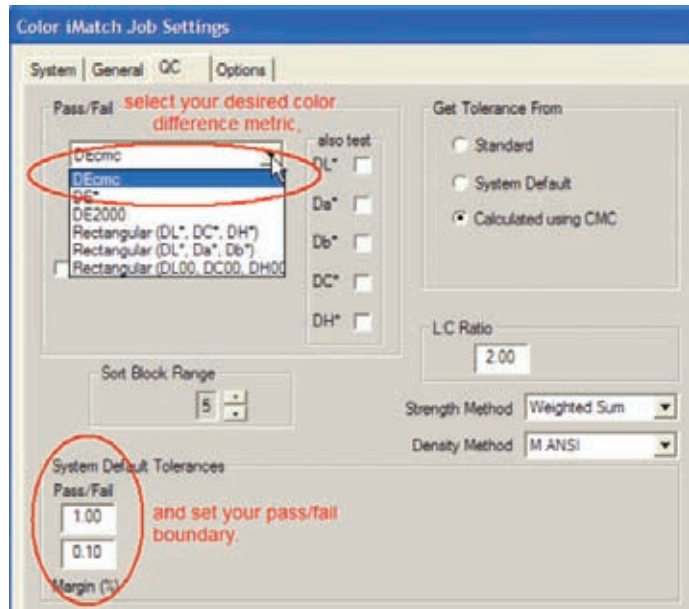
The Color iControl system makes it easier for you adhere to best practices by building them into your workflow.



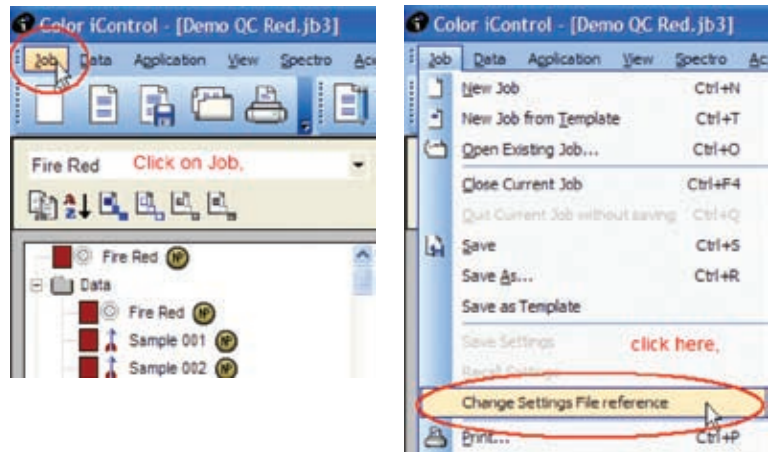
This screen is filled with items you will need to define for Best Practice for your application



Now, let's set up the colorimetric parameters:

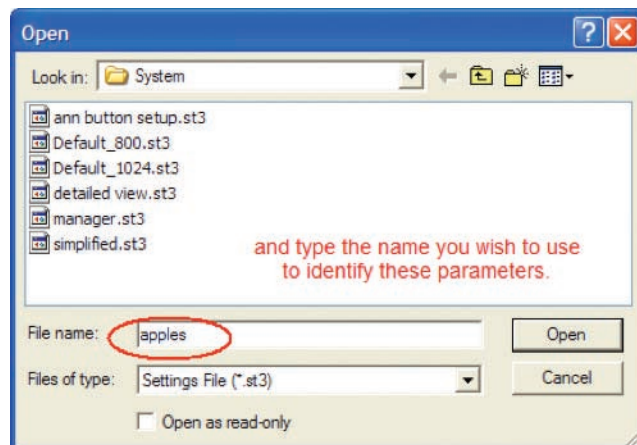


Once you set up a job in conformance to your Best Practice for a specific applications, you can save the settings to a file for future work. For example, we'll save these settings as "Apples".

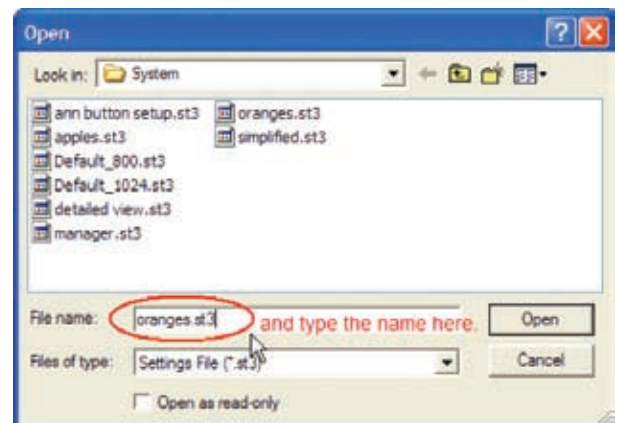
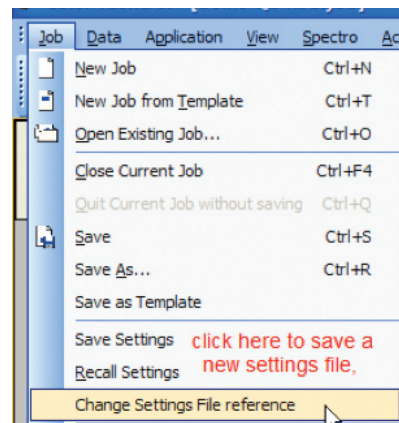
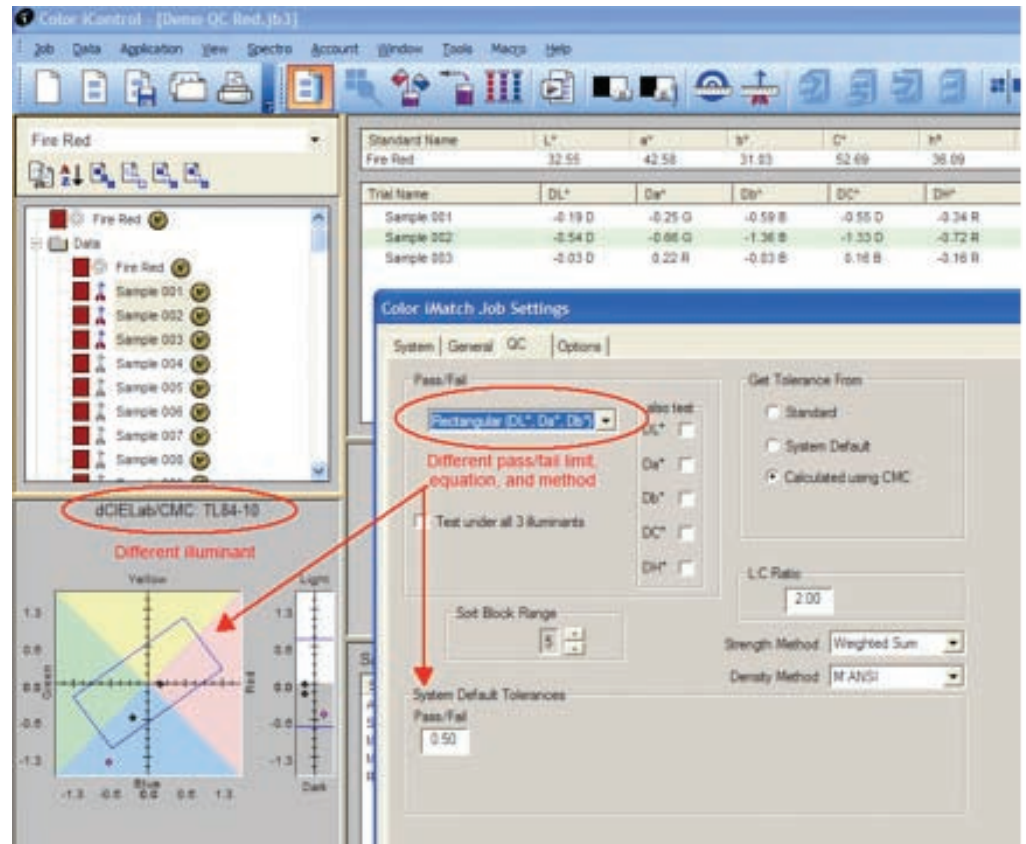


Color iControl makes it easier to manage your customers' best practice requirements by automating and building them into your workflow.

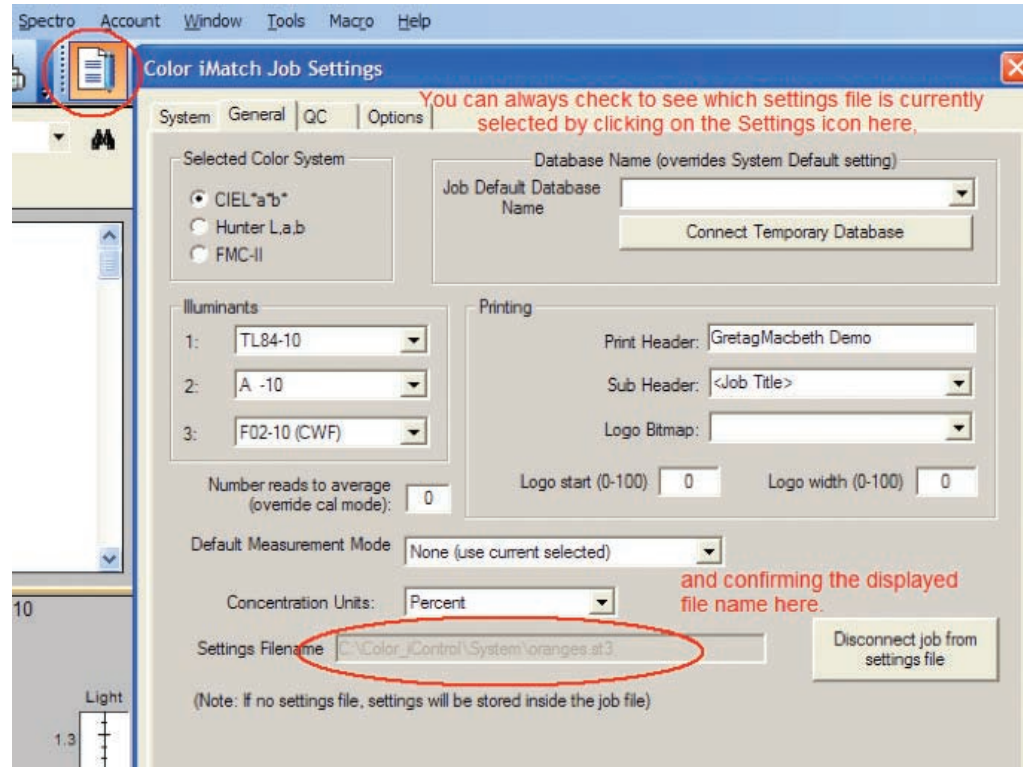
From now on, any jobs that point to the Apples settings file will have the parameters and setting you have defined.



Now, let's say you need to create a different set of Best Practice parameters for another application. We'll call it Oranges.



Now, you can easily assess color measurement results in compliance with your two defined Best Practices for two different applications, simply by using the appropriate settings file.



You now have the tools you need to establish and maintain a program of Best Practice color measurement. And, you've made it easy for others in your organization to understand the relevant parameters of your Best Practice and conform to your requirements.

Call 866-285-3463