Color i™ QC Taper Option

Instrumental Color Sequencing and Clustering
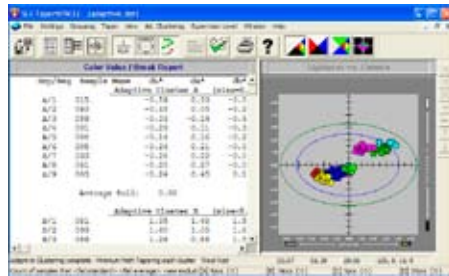
x-rite PANTONE®

Adaptive Clustering™ and 3-D Color Space Plot

Color iQC Taper Option is a color sequencing program that allows you to use CIELab data (representing rolls of fabric) and then place that data into a sequence (taper) such that color differences between adjacent rolls are minimized. This reduces the possibility of creating shaded products.

A feature, known as Adaptive Clustering™, can be used in Color iQC software. Adaptive Clustering™ enables a manufacturer to group pieces into clusters of acceptable color differences, according to production variation observed over time. The system can further minimize color variation by sequencing (tapering) within each cluster. The manufacturer can then use this information to aid in finding problems in production and to tailor shipments according to particular customer needs..

In addition to the Adaptive Clustering feature, a 3-D representation of color space allows the user to plot each sample. This 3-D graph can be rotated in either direction, along any of its three axes, as well as zoomed in or out. Ellipses representing both the standard tolerance and the average tolerance can be displayed, in either solid, transparent, or wire form.

The images on this page show a set of data that has had the Adaptive Clustering applied, resulting in multiple groups being created. The average tolerance is shown by the inner ellipsoid and the standard tolerance is shown by the outer ellipsoid.
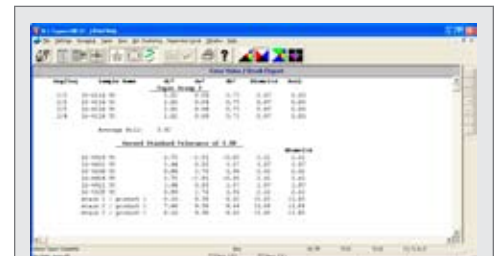
An Adaptive Clustering Profile is created for each standard so that historical data may be kept on the distribution of samples. Whenever a set of data is Adaptive Clustered in preparation for tapering, the location and number of clusters is stored in the Profile, along with the number of samples in each cluster. Clustering and tapering another set of data using the same standard will add those samples to the existing clustering information. If new clusters need to be created, the software will do so.

Features

- Minimizes the color difference from piece to piece within a lot
- Incorporates CMC (2:1) color difference equation for best tapering of an inventory
- Optimizes piece selection from existing inventory for apparel cutters and textile suppliers
- Integrates with Color iQC and Color iMatch
- Identifies multiple clusters which may be used together
- Interfaces to in-house computer inventory allocation systems
- Automatic or manual selection of standard and samples
- Two tapering philosophies to handle both linear and spherical distribution of data
- Clustering algorithm groups appropriate pieces together

Benefits

- Enhance usefulness of electronic linkage to customer
- Eliminate visual tapering
- Eliminate or reduce ply-numbering
- Improve shade quality of inventory allocation
- Ship fewer shade groups
- Reduce shade variation within shipment
- Provide quicker, high-quality response to customer

Taper Report Option
Clustering and tapering information may be printed out in tabular form. You may want to use the default report that ships with the program or customize your own reports.

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