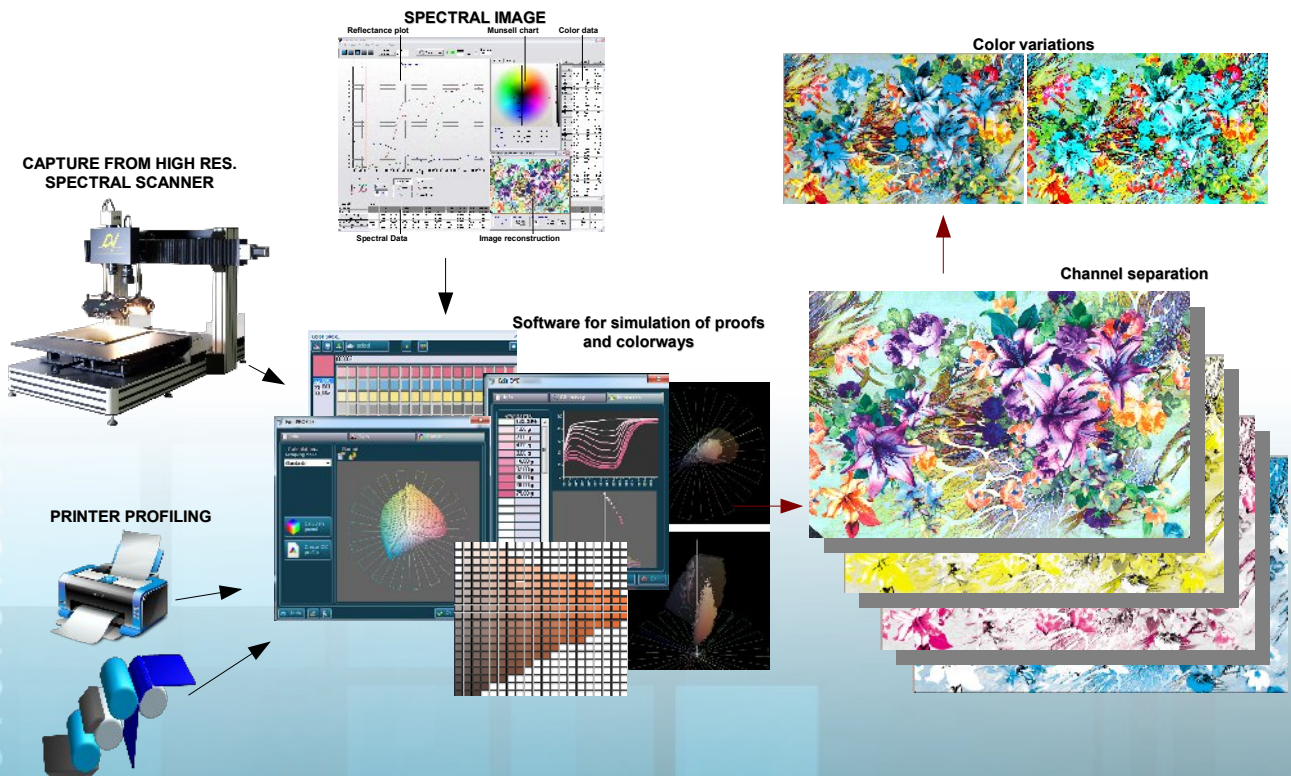


SOFTWARE FOR SIMULATION OF PROOFS AND COLORWAYS



Colibri is an application that allows you to make proofs on separate images in paintings, acquired by hyperspectral scanner or camera..



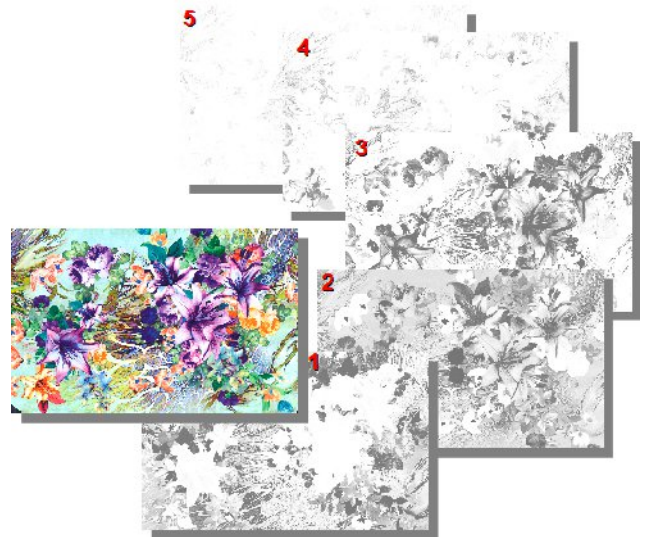
Capture from scanner

Images can be scanned and stored on disk. The spectral images are files that contain for each point acquired the reflectance, and for this reason they are very large files. Colibrì uses a proprietary file that contains all the spectral informations, but with a high level of image compression.



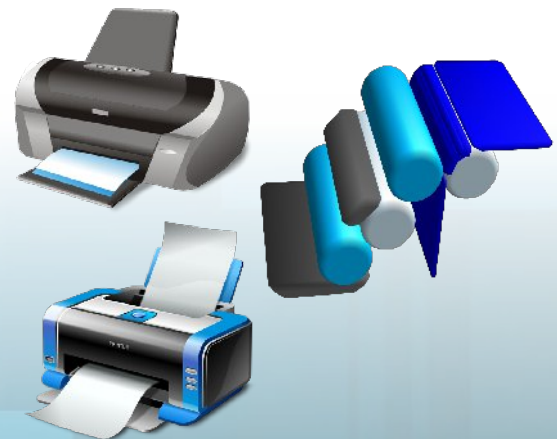
Channel separation

According to printer characteristics colibrì performs the best channels separation required in printing process with engraved cylinders. The software addresses the channels and each channel is associated with the proper color calculated by the recipe.



Profiling Printers

Colibrì allows you to create profiles in ICC format (rev 2.4). The scanned images can be reproduced on large format printers (Mimaki, Roland, etc.) or processed in separations TIF exported to other software. Separate images contains the used ICC profile, and this allows an easy manipulation in Photoshop.



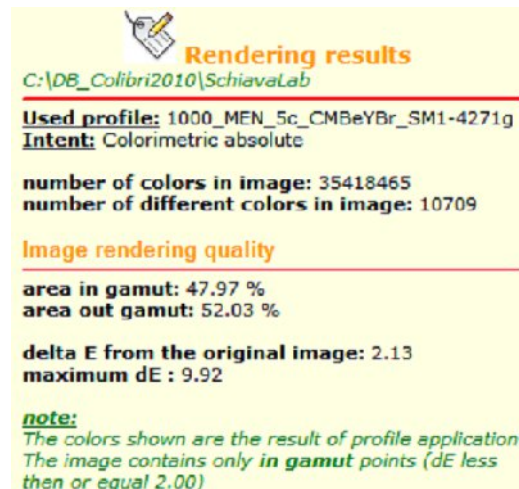
Printing proof

You can print images using different intents: colorimetric absolute, relative, with correction of the white and black , or perceptive.

Control of metamerism: you can use both the printer ICC profile or the native Colibri , in this case, working on the spectral information of the images, you can print minimizing the metameric differences.



You can control the quality of the reproductions, asking to see the end result (soft proofing) or only the portion of the image reproduced correctly with a maximum dE . On the left you can see two images: one is the original scanned, and the second image, instead, contains only the properly produced colors on the selected printer.



Rendering results
C:\DB_Colibri2010\SchiavaLab

Used profile: 1000_MEN_5c_CMBeyBr_SM1-4271g
Intent: Colorimetric absolute

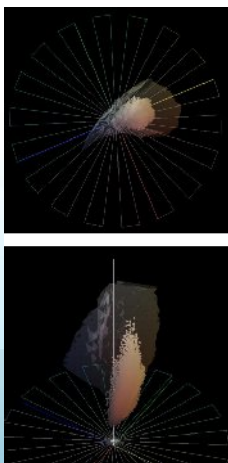
number of colors in image: 35418465
number of different colors in image: 10709

Image rendering quality

area in gamut: 47.97 %
area out gamut: 52.03 %

delta E from the original image: 2.13
maximum dE : 9.92

note:
*The colors shown are the result of profile application.
 The image contains only **in gamut** points (dE less than or equal 2.00)*

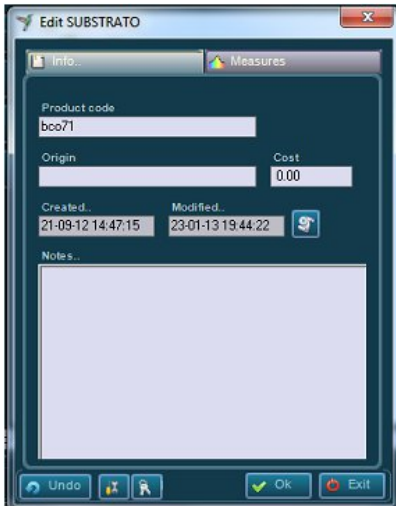


Comparing gamut images

Colibri allows to compare the gamut of the printer with those of images: an efficient way to analyze their reproducibility. In this way, you can then see which parts of the image are out of gamut. Colibri manages three-dimensional representations of Colorways gamut allowing the aspect editing.

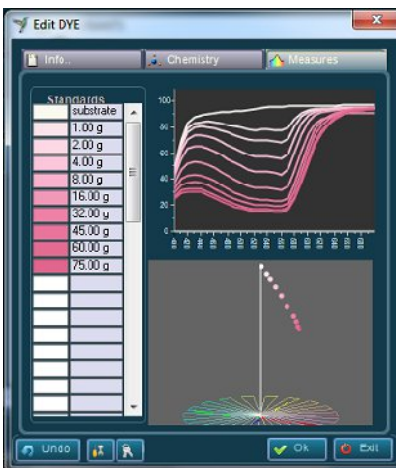
Colorimetry

Colibri is a software colorimetry and calculation of color recipes.



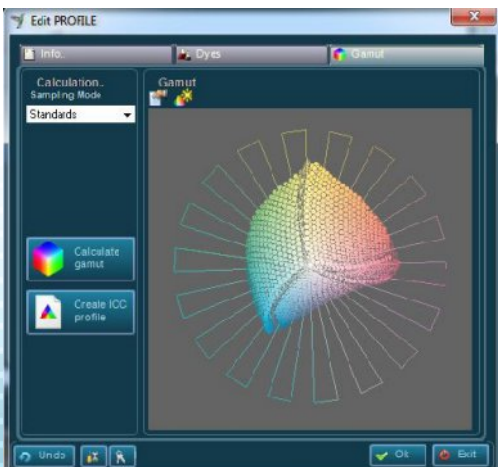
Substrates management

you can manage information related to the substrates used in colorimetry and maintain a database of colorimetric measurements to perform quality control over time.



Dyes management

The dyes are entered into a database to be used later in the construction of the color profiles. The dyes are characterized by the dilution curves on the reference substrate.

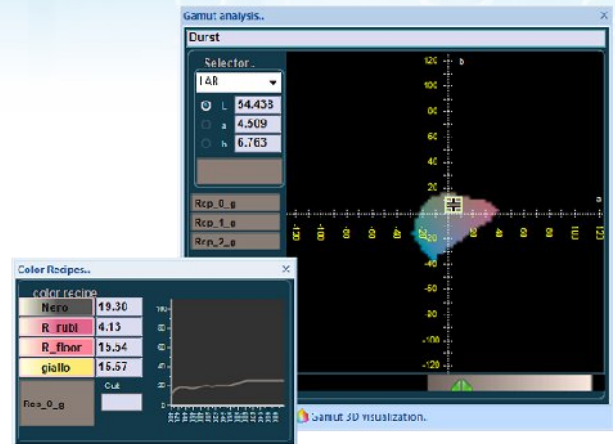


Color Profiles

Colibri allows you to build the color profiles for an unlimited number of dyes. A color profile may be constructed for a printer as for any different color system. Colibri use internally an owner color profile structure, since it uses spectral information on color matching. However, each profile can still be saved in ICC format.

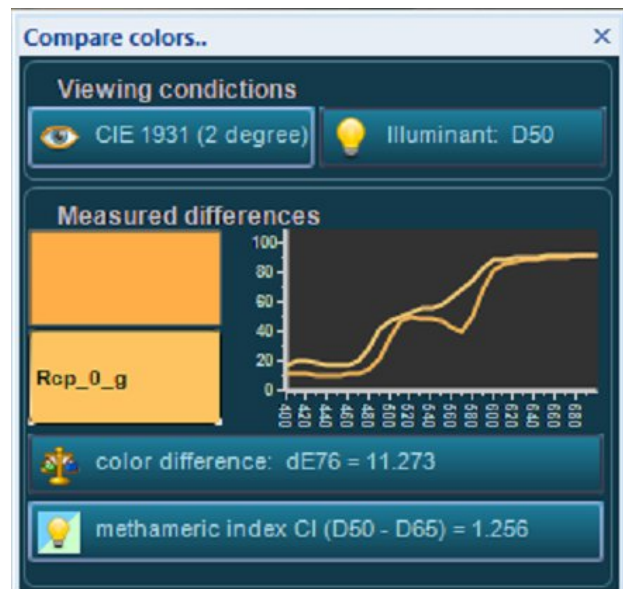
Colors recipes

Once built a profile, you can calculate the color recipes by spectrophotometric measurement of the samples. Colibrì is able to calculate different recipes for the same color, allowing the check of color difference (different indices of dE) and metamerism.



Comparison of recipes and spectral measurements

Colibrì allows you to control the difference between the colors by calculating different indices of dE, under different lighting and visibility conditions. It 'also possible to calculate the difference metameric (CI) between different illuminants.



Color Books

Colibrì allows the management of color books arranged chromatically. The color books can be generated automatically by a color profile, measured with a spectrophotometer or imported from external files (CGATS or other formats). They can therefore be used for the generation of variants of color separated images in paintings

