# **Features**

# SmartColor

SmartColor<sup>™</sup> is an optional automatic repro module for Color Factory Professional and Color Factory Enterprise that offers the following important enhancements:

- Contrast enhancement
- Color enhancement
- Shadow and highlights enhancement
- Natural color enhancement

# Contrast enhancement

The contrast enhancement feature determines the optimum settings for white- and black-point level and for the gamma correction. The advantage of this technology is that difficult scenes like snow, night, portrait, flash, and other images are detected, enabling optimal corrections.

## Color enhancement

Color enhancement differentiates a normal colour cast situation from special cast situations like artificial light, portrait with skin tone, white point or colored black point, for example in the green trees.

## Shadows and highlights enhancement

This is one of the most important image enhancement steps. The enhancement results are obvious, especially in the shadow areas where much more detail will be visible. Shadows and highlights enhancement also acts on the highlights which are near saturation. A good example is flash portrait images shot at night. Here shadows and highlights enhancement can bring back some skin details in an overexposed face.

# Natural color enhancement

This is a color enhancement of key natural colors which have to be pleasant for the human eye. These are skin tones, sky, vegetation and others. For these colors we define colour points which pull less pleasing colors closer to more appealing colors.

# Automated quality control

Color Factory can automatically evaluate the quality of the images processed by using histogram analysis. Accepted images are stored in one folder, for example for production, while images that are not accepted are moved for further manual enhancement. Think of the time-saving possibilities!

# Automatic image sorting

Use Color Factory to automatically sort files files based different criteria like prefixes, metadata, image size or quality, color space and more. It can distribute files in output folders according to the number of files or megabytes in the destination folder. This makes Color Factory the perfect companion for pre-archival processing or preparation for storage on removable media like CD and DVD.

Corrputed input files will automatically be sorted out and moved to a collection area.

#### Automatic captioning and metadata tools

Text from different sources can be merged with an image. An ODBC connection can be used to fill selected fields from sources such as a SQL Database or a Microsoft Excel spreadsheet.

A predefined text template can be applied to images processed in a channel, either adding to the text already in the files or replacing existing content.

Text extraction is another feature useful for integration with other systems. Complete code page conversion is a available for most languages and platforms. The image text is fully compatible with XMP and Adobe Photoshop file info.

#### **Color Management**

In addition to normal color space conversions, Color Factory offers several state of the art Color Management tools. Advanced Gamut control allows for automatic selection of the best rendering intent, and Pre-flight gamut checking of RGB images can tell you which files does not convert to CMYK correctly.

Full control of profile embedding makes Color Factory a perfect match in any production workflow. When generating EPS and FotoStation Pro previews, Color Factory utilizes Color Management for accurate color reproduction.

#### **Color Space Conversion**

Color Factory supports conversion between all color spaces - grayscale, RGB, CMYK and cieLab - and uses ICC color profiles for color management. Color images can be converted to grayscale with a contrast enhancing algorithm for the best possible grayscale rendering.

#### Image enhancement

Color Factory can automatically enhance images through color adjustment, contrast enhancement, unsharp mask and/or dust removal filters. Automatic functions for contrast and sharpening are powerful and produce improved results on almost all images. Color Factory can automatically perform many of the time consuming operations in large production environments, and more time may be spent increasing the quality of images that require special attention.

#### SmartClean

SmartClean<sup>™</sup> is an optional noise reduction module for Color Factory Professional and Color Factory Enterprise that offers the following important enhancements:

- Filters out both high and low frequency noise at the same time
- Achieve better color saturation and contrast
- Handles differences between shadow, high-light and mid-regions in an image

The SmartClean<sup>™</sup> software library contains a highly efficient and flexible photo noise reduction engine based on state-of-the-art technology developed under supervision of professional photographers.

By reducing noise in high ISO images with SmartClean<sup>™</sup> it is possible to create images with more color saturation and contrast.

SmartClean<sup>™</sup> can handle images with more noise in shadow areas than in highlight areas.

Luminance variations are filtered more carefully than chroma variations in order to preserve image texture and detail sharpness.

## **PDF Processing**

Color Factory supports processing of PDF files. It can perform all image handling functions in-place on images in a PDF document, for example CMYK conversion. Automatically splitting a multi-page document into separate files for each page is also possible, and it can convert a PDF document to an EPS file. Pictures can also be extracted from a PDF and converted to a common image format for storing in an output folder.

## Image resizing

Images can be resized with or without resampling. Resizing with fixed proportions is useful when creating images for web publishing. Resampling is done with the highest possible quality. There are many alternatives for resizing to accommodate all possible requirements.

## Automatic watermarking

Color Factory makes it easy and affordable for anyone to include the company logo and copyright notices. Use it to add a transparent watermark to your pictures, to add a block containing metadata under the actual image data or to stamp your images with a company logo.

## **Image printing**

Color Factory supports automatic printing of processed images. You can even create your own print templates to incorporate a company profile with logos etc. Full layout control and text specification is possible using print templates.

## Archive maintenance

Using FotoWare Index Manager, Color Factory can search for duplicate files in the archive. Duplicates can be handled as new versions or be routed to a different folder. Color Factory automatically manages your image archive and prepares images for archiving! Define channels that control the number of images or the number of megabytes in a folder, and then move or delete files when the limits are exceeded.

## Integration with third-party systems

Integrators can easily connect a third-party system to a Color Factory server to benefit from its advanced file flow and image processing features. Color Factory uses simple, yet powerful ascii-based Job Request Files that can be automatically generated by the third-party system to specify the files to process, the type of processing to be applied and their output destination. Thus, Color Factory can color process, convert, resample or route files based on whatever information is supplied in the Job Request File.