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Current Versions

input	3.1.2
display 5	5.1.3
print 3	3.1.0
dropRGB	2.1.0
CMYKick	2.1.0
Devil	3.0.0
demon	1.1.3
dragLINK	1.1.0
LINKflow	1.0.0
catch	4.2.0
IMProve	1.0.0
MatchPatch	2.0.0
spoTTuner	2.0.0
control	4.2.0
certify	4.2.0
statistics	4.2.0
gHOST	2.5.0
Print Production Server	6.4.5
profile genie	1.0.0
SMARTt	2.4.0



baslCColor and OS X Mavericks

Express-test of the baslCColor products with Mac OS X 10.9 Mavericks



Even though Mac OS X Mavericks has not been released yet, baslCColor has tested all of its applications in the developer's version of the new Apple operating system.

In the last edition of the baslCCourier we did report some restrictions that have miraculously disappeared with OS X Mavericks Developer Preview 4. These errors were caused by the operation system and we have searched for the errors in our code unnecessarily.

This effort however did not go to waste as you will see by the many new releases. We took the opportunity to optimize and improve many baslCColor applications, as you can see under „Current Versions“!



What is a DeviceLink?

Back in 1994 the very first ICC-specification did already define 7 different classes of ICC profiles; amongst these: DeviceLink profiles. For a long time DeviceLinks have been undervalued - until now.....!!

In this article we would like to explain why DeviceLink profiles (or DeviceLinks in short) differ from output profiles and what advantages they offer in the workflow.

Profile Classes

- Input Device Profiles „scnr“

Description of input devices (Scanner, digital cameras) by a transformation of the device color space (Gray, RGB, Multicolor) into the Profile Connection Space (PCS).

- Display Device Profiles „mnr“

Description of emissive output devices (monitors, projectors) by a transformation from PCS to the device color space (Gray, RGB) – and reverse.

- Output Device Profile „prtr“

Description of output devices and printing systems (analog und digital printing systems) by a transformation from PCS to the device color space and reverse. The device color space is GRAY, RGB, CMYK or MultiColor.

- DeviceLink Profile „link“

Transformation from one device color space into another. The device color space is defined by the first profile, the PCS is defined by the last profile of the chain.

- ColorSpace Conversion Profile „spac“

Transformation of a stand-alone color space to the PCS and reverse. Stand-alone color spaces can be XYZ, L*a*b*, RGB or other colormetrically defined color spaces.

- Abstract Profile „abst“

Transformation from PCS to PCS, ie a L*a*b* to L*a*b* transformation. Apple's quartz-filters are abstract profiles.

- Named Color Profile „nmcl“

Contains color names of Pantone or HKS tables for example and allocates color measurement data (L*a*b*) and device specific color data (RGB, CMYK) optionally.



DeviceLinks In Detail

DeviceLinks define the transformation from one device color space into another. Input- and Output color space can be different; an RGB camera color space can be transformed into a CYMK printer color space for example (not without difficulty in Adobe Photoshop, though, but read on).

The difference to a conversion with 2 device profiles (known as profile conversion) is that in DeviceLinks the rendering intent is preset and cannot be changed at conversion time. A DeviceLink has only got one table (AToBoTag) and can't therefore change its direction of transformation.

Scope Of Application

DeviceLinks can be used for process conversion, process adaptation or ink saving. The different tasks need different calculations when creating DeviceLinks.

Process conversion is the conversion between 2 different printing methods like offset printing and gravure printing.

The separation parameters and the color gamut are specified by the destination printing condition, yet the gradation will need to be adjusted for the grayscale.

The **process adaptation** is used to transform between 2 similar processes, for example if different inks are used or the tone value increase (TVI) differs.

The separation parameters and the color gamut are not changed. It is desired to keep the black channel, so that uncolorful objects (pictures, texts, graphics) are not changed.

By **reducing the total ink coverage** a change in the black structure is often apparent. To stabilize the print GCR can be applied. With this kind of DeviceLink input- and output color spaces can be the same. The reduction of the total ink coverage and the usage of GCR lead to ink saving to some degree.

The word **InkSaving** became quite fashionable in recent days. The term isn't clearly defined and is used wrongly in many cases. A strong GCR and the reduction of the total amount of color (TAC) result in „ink saving“ to some degree. But the quality in print is going to suffer if you go too far. That's why InkSaving needs a whole new set of algorithms to be able to save ink as well as stabilize the printing process and achieve the highest possible quality.



Advantages Of DeviceLinks

When creating DeviceLinks a whole set of conditions can be defined which can't be done in profile conversion:

- Preserve black

Preserves the black composition of the input profile - in a profile conversion the output profile would define the black generation.

- UCR, GCR, black start, black width

These can be defined independently from the settings in the input- or output profile.

- Preserve gray, black channel

This ensures that elements created with a black ink only (ie. text) keep their properties throughout the color transformation.

- Preserve primary colors, secondary colors, duplex and triplex

Keeps pure colors or colors that have a specific composition (e.g. duplex: black and one color).

The color structure is kept throughout the color transformation but the gradation is adjusted to the destination printing condition to achieve the best possible visual result.

The reliability of the production process should not be compromised. In a workflow with profile conversion the possibility of accidentally changing the rendering intent with one of the programmes involved is always there - an error that is not spotted easily! In a Device-Link the rendering intent is „hard-wired“ and therefore cannot change.

It is a positive side effect that a conversion via a DeviceLink is also faster than a device-profile conversion - but due to today's high performing computers this is of less importance now.



New Version basICColor *Devil*

basICColor *Devil* - good as usual in quality and handling - but rejuvenated in it's possibilities and options!

NEW! SaveInk-profiling for saving ink whilst keeping quality.



basICColor *Devil* is the DeviceLinker with the largest functional range and the highest quality at an unbeatable price! The new version features a newly designed user interface. Four buttons ensure that you can directly access all functions of the application. With predefined settings the parameters for a DeviceLink creation are defined; all it takes is a mouse-click - it's that simple!





If the the presets don't fit your individual requirements you can adjust the setting and save it under a new name and thus make it reproducible. You can change so many different parameters in such a wide range that nothing is left to be desired.



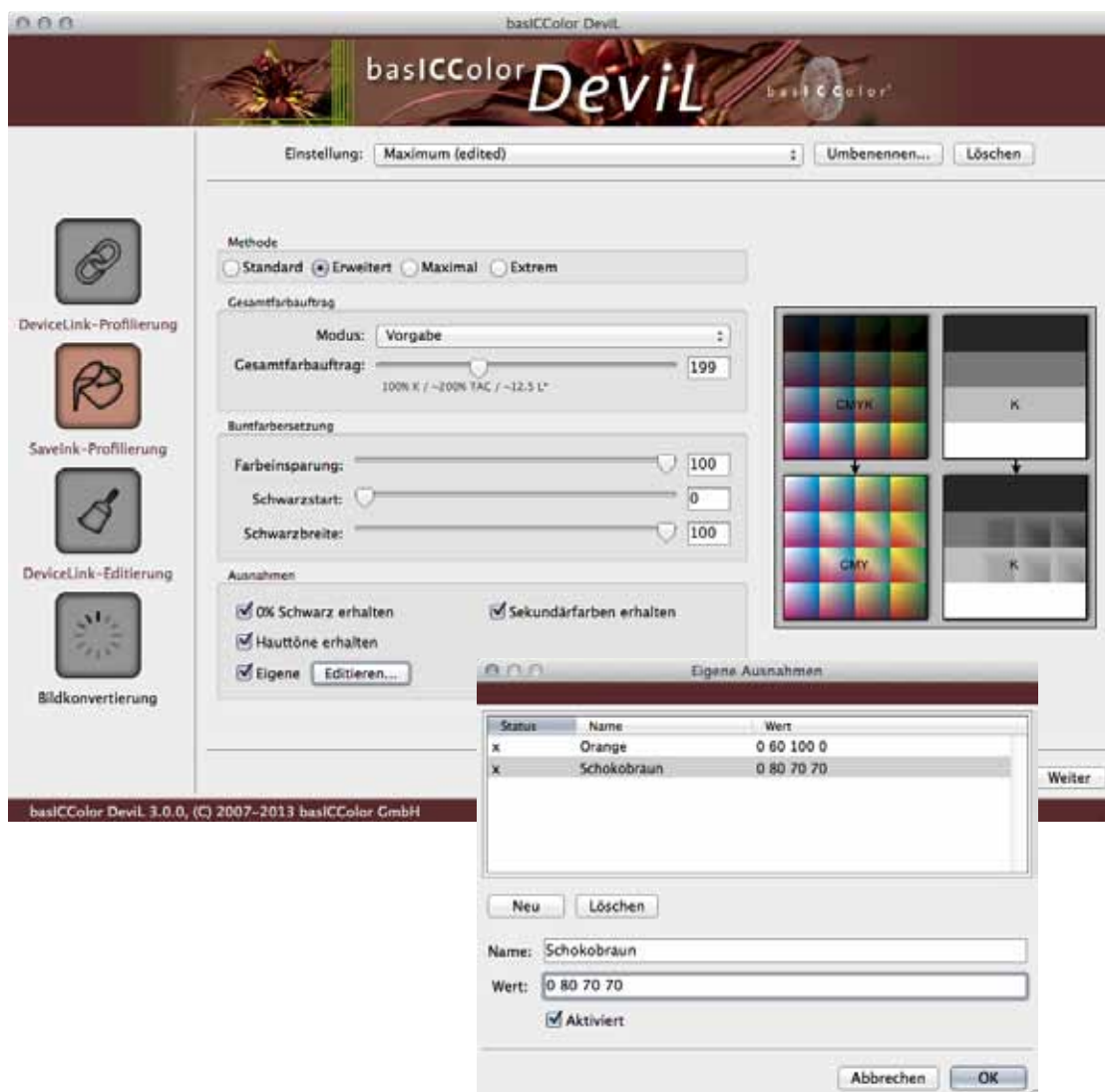


With the new and optional module basICColor *DevIL SaveInk* you can create a DeviceLink with optimized separation settings from an ICC printer-profile. Input- and output print conditions are the same.

Parameters like TAC, black start and black width can be determined automatically or set individually.

With the „Exceptions“ unwanted side effects can be eliminated. Skin tones can be kept untouched to avoid an unattractive peppering for example. An object, that is composed of 3 chromatic colors on purpose, can be preserved, as well as a saturated secondary color, even if the TAC is defined lower than 200%.

Furthermore spot colors (CI colors) can be exempt from InkSaving.

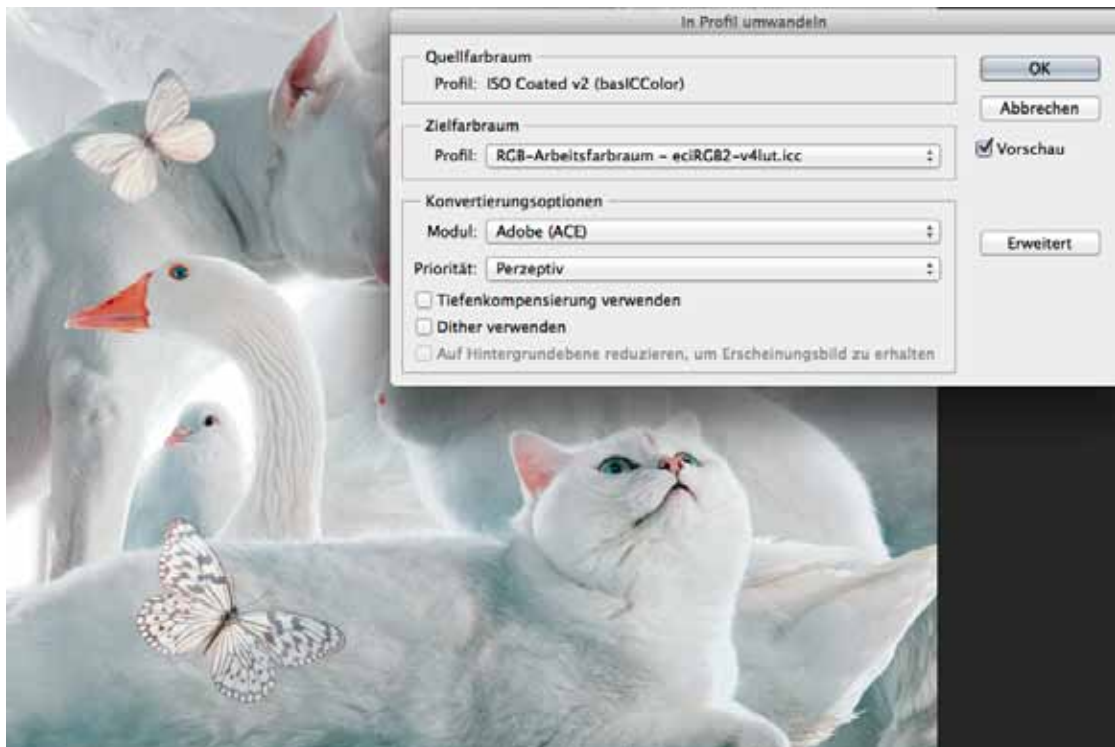




DeviceLinks In Photoshop

Photoshop CS4 and later supports DeviceLinks for color conversions - unfortunately not to a full extend and not feasible either. Let us explain the pitfalls that occur when using DeviceLinks in Photoshop.

Initially it looks quite simple: click „Edit“, „Convert to profile...“



Select „Advanced“ and you will see „Device Link“ in the target color space section

Once this option is selected and the preview checkbox is active, your image will change dramatically. See next page.



Only when you assign the destination ICC-profile that was selected in the DeviceLink, and was used to convert the image via „Edit“ „Assign profile...“ , the display in the preview will be correct.



Due to the structure - a DeviceLink works like a filter, not like an ICC-profile - Photoshop is unable to allocate the correct profile after the conversion.



Not all color spaces that shall be converted with DeviceLinks are as dissimilar as our example. The likelihood of not noticing an image having an incorrect profile assigned is very high. If you save this image and leave Photoshop it is impossible to trace back the correct color space of this image. Photoshop attaches the presently allocated profile when saving.

Photoshop is furthermore unable to use DeviceLinks that change a color space - RGB to CYMK or reverse - although these are absolutely legal ICC-DeviceLinks.

If you wish to use DeviceLinks in Photoshop, baslCColor demon is the safest and simplest solution.

Conversions from one color space to a different one are no problem, you can even see the correct result in the preview, and when saving the image the correct profile is allocated. For color corrections you can even use abstract profiles.

Please be invited to find out more in previous editions of the baslCCourier:
www.basiccolor.de/basiccourier.

Here the working principles of baslCColor *demon*, DeviceLinks and abstract profiles are described. The importance of this topic hasn't changed since 2009.



Pricing And Availability

baslCColor *Devil* version 3.0 is immediately available!

Module	Price	Upgrade from previous versions
baslCColor <i>Devil</i>	2.990,- EUR	500,- EUR
baslCColor <i>SaveInk</i>	2.990,- EUR	NEW
baslCColor <i>demon</i>	500 EUR	0,- EUR

baslCColor *SaveInk* requires *baslCColor Devil* 3.0 and cannot be used with previous versions.

All prices are without tax and shipping costs
(no shipping costs apply when downloaded)

