

basICCs of color

basICColor®
Essentials

basICColor *dragLINK*

Reference Manual

Content

1. PREFACE	4
2. INSTALLATION AND LICENSING.....	6
2.1. Minimum System Requirements	6
2.2. Installation	8
2.3. Product registration and licensing.....	9
3. CREATION OF DEVICE LINK PROFILES.....	15
3.1 basIColor dragLINK Variants	18
3.1.1 <i>basIColor dragLINK photo</i>	18
3.1.2 <i>basIColor dragLINK proof</i>	19
3.1.3 <i>basIColor dragLINK save</i>	19
3.1.4 <i>basIColor dragLINK print</i>	20
3.1.5 <i>basIColor LINKflow</i>	20
4. DEVICE LINK PROFILE FUNDAMENTALS	22
5. PRODUCT INFORMATION BASICCOLOR DRAGLINK	24

Chapter 1

Preface

1. Preface

With *basIColor dragLINK* you have purchased a *basIColor* module that will allow you to create ICC-DeviceLink profiles.

DeviceLink profiles are a variant of ICC profiles that convert color data from source profile to destination profile without using an intermediate color space (PCS; e.g. Lab or XYZ).

By using this approach, profiled color data for example of a RGB input device like a digital camera or scanner can be converted in an optimized way to a working space (e.g. ECI-RGB v2 or Adobe RGB). Likewise, color conversions between different working spaces (e.g. AdobeRGB -> ECI-RGB v2) are optimized.

basIColor dragLINK is available in different versions (photo, print, proof and save), which differ only in the way the DeviceLink profile is optimized for different use cases. The basic operation for all variants is the same and will be described only once in this manual.



Chapter 2

Installation and Licensing

2. Installation and Licensing

2.1. Minimum System Requirements

Apple Computer

- Apple[®] with G4 / G5 processors
- Mac OS X (10.4.11 or higher)
- minimum 256 MB available system memory (RAM)

- Apple[®] with Intel[®] processors
- Mac OS X (10.4.11 or higher)
- minimum 512 MB available system memory (RAM)

Windows[®]

- Intel[®] Pentium[®] III or 4 processor
- Windows[®] XP with SP2 or Windows[®] Vista
- minimum 512 MB available system memory (RAM)

All Systems

- Minimum 100 MB free hard disk space
- CD-ROM drive (for installation)
- Colormonitor with a minimum resolution of 1024 x 768pixels and a color-depth of 24-bit (16,7 million colors)

Knowledge requirements:

These instructions assume familiarity with the basic operation of the Mac OS X on Apple Macintoshes or Windows XP or Vista on PC operating systems.

Documentation:

This documentation describes the use of *basIColor dragLINK* on Mac OS X and Windows. Mostly the Mac OS X version will be covered here, where the screenshots come from as well.

If the usage differs to Windows, notes will point out this differences.



Note: 14-Days-Demo-License

The basICColor GmbH provides you the ability to tryout *basICColor dragLINK* for 14 days. The software can be used fully functional. However, the Device-Links you create with a demo version can only be used within *basICColor Devils* "Image converter" or with *basICColor LINKflow*. In all other applications, these Demo-DeviceLinks are not usable.

A 14-days demo license is available through the *basICColor* license server (<http://license.basicolor.de>) and is bound to one computer.

2.2. Installation

- 1.) Turn on the computer on which you wish to install and use the software.
- 2.) Put the *basICColor* CD into the CD-ROM drive.
 - **Mac:** The *basICColor*-volume with all *basICColor* products will appear on your desktop.
 - **PC:** If the *basICColor* CD-ROM does not appear automatically, go to "My Computer" and select the CD-ROM drive.
- 3.) Begin the installation by double-clicking the *basICColor dragLINK* Installer. Follow the instructions on screen.
- 4.) Once *basICColor dragLINK* has been successfully installed, you can launch it for the first time.
- 5.) Start *basICColor dragLINK* by double-clicking the program-icon.

2.3. Product registration and licensing

Licensing and unlocking *basICColor dragLINK* software is linked to an individual computer. You will receive an individual license file (.lic-file) that allows you to “unlock” and use the software on the computer on which it was installed.

The first time you start *basICColor dragLINK*, the “Licensing” window will pop up.

You have the option of testing the fully functional software without any obligation for **14 days** or of immediately requesting your **permanent** license file if you have purchased *basICColor dragLINK*.

- a) If your computer is directly connected to the internet, simply click the <License...> button.

- b) If your computer is not connected directly to the Internet, use a different computer to access ***license.basicolor.de*** and click on <Licensing>. Follow the instructions on the screen.

- c) If you do not have an Internet connection at all, use the <Fax Form...> button to open a PDF document. Fill it out and fax it to the fax number you find on the form.

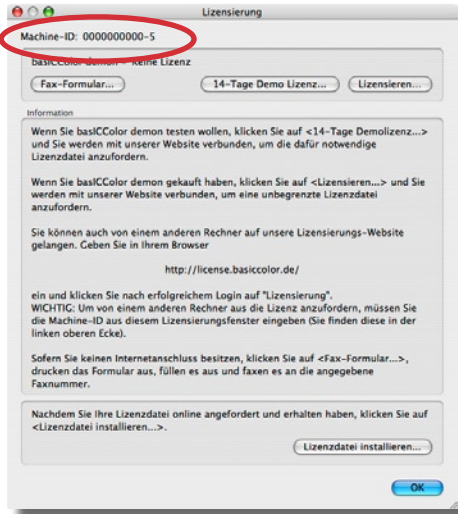
If you have never registered on the *basICColor* web site, you will need to complete the registration information in order to open your personal *basICColor* account. Your registered **e-mail** address and **password** will allow you to log on to the *basICColor* web site to request license files and to download *basICColor dragLINK* software updates.

Once you are logged in you still have the option of selecting either the 14-days demo license file or the permanent software license file. Before making your selection please note:

- **TAN** ... TransActionNumber. There should be a sticker on the *basICColor* CD-ROM cover with a TAN . Alternatively or you will receive a TAN from your dealer. Once you have entered this number in the corresponding field and submitted the online form, you will be automatically directed to the area of the web site where you can download your individual license file. If your *basICColor* CD-ROM cover does not have a TAN or if you don't have a CD or don't have a TAN, then go to the <licensing without a TAN> section on the licensing web site. Your licensing request will be processed and after all technical and commercial requirements have been met, you will get access to your individual license file.

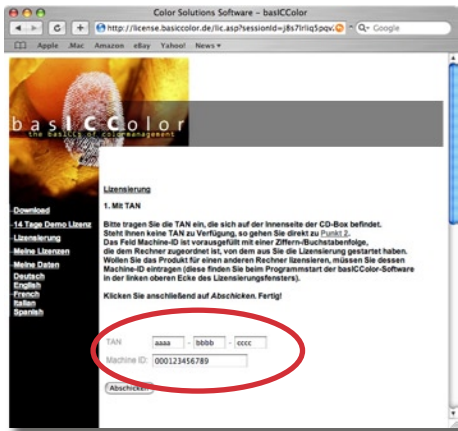


On the inside of the CD-box you can find the TAN.



- **Machine ID...** The number entered in this field must match the number displayed in the *basICColor dragLINK* Licensing window topmost left since this is the number that will be used in generating your individual license file.
- **Product...** Please select *basICColor dragLINK* from the pull-down menu if it is not selected already.

Fill out all the required information (indicated with an *) and submit the form. You will either be linked directly to the web site where you can immediately download your individual license file, or you will receive a message indicating that your request requires further verification and that you will receive an e-mail notification when your individual license file is available.



Important: Store your license file carefully! It is your key to unlock the *basICColor dragLINK* software. You will also need this file for future software updates. This security method replaces the need for a hardware dongle. If you should lose it, you can retrieve it from the licensing server at any time again by logging into our web-site from within the application and going to the <My Licences> section.

For licensing your copy of *basICColor dragLINK* a TAN and the machine-ID of your computer will be required.

As soon as you have received your license file (**basIColor_dragLINK.lic**) click on the button <Load License...> and install the license file to the application. Now the application is unlocked and ready to use.

Restart the software.

Your license file (**basIColor_dragLINK.lic**) is valid for all software updates and reinstallation of *basIColor dragLINK* on that particular computer. If you wish to install *basIColor dragLINK* on additional computers, you need to obtain a new individual license file for each one. Additional licenses can be purchased from your *basIColor* dealer or directly from *basIColor GmbH*. If you purchase a new computer on which you would like to install *basIColor dragLINK*, you have to obtain a new permanent license file. Go to the <Licensing -> 2. Without a TAN> section on the licensing web site. Please fill in all fields (product, purchased from, CD-S/N, Machine-ID) and select <hardware replacement> from the pull-down menu.

As an alternative to using our online portal, you can also contact *basIColor GmbH* (support@basIColor.de) directly.

You can check the state of your license in the *basIColor dragLINK* <Help->License> window. The License window appears and shows the state of your license in the top left corner.

Chapter 3

Fundamentals

3. Creation of DeviceLink Profiles

Using *basIColor dragLINK* is extremely simple. Basically, you drag the ICC-profiles to use onto the designated fields in *basIColor dragLINK* and drop them there.



The ICC-profile that describes your source space should be dropped onto the left field of *basIColor dragLINK*.

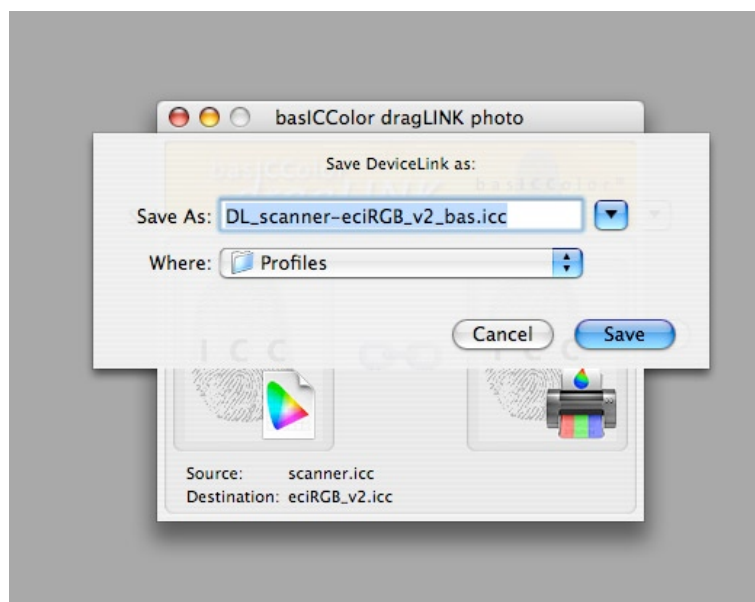
The right field in *basIColor dragLINK* is for the ICC-profile that belongs the destination space you want to convert your data to.

The procedure is comparable to steps taken in applications like Photoshop. Source and destination profile are selected:



The name of the selected source and destination profiles are displayed in the lower part of *basIColor dragLINK's* main window. In this example, the source profile is *Scanner.icc*, the destination profile is the standard working space *eciRGB_v2*. Our example reflects the task to create a DeviceLink that converts data coming from a scanner color precisely to a standardized working space *eciRGB_v2*. And that with maximum quality.

After both ICC-profiles have been chosen, *basIColor dragLINK* opens a dialog where you can select the name and the place for the DeviceLink to be created. An intuitive name is proposed by *basIColor dragLINK* automatically, but can be changed anytime.



It is advised to name DeviceLinks explicitly as such, because if you don't you probably will have difficulties to distinguish them later from normal ICC-profiles.

After choosing a name and a storage location, the computation of the DeviceLink profile will start.

When the computation has finished, your DeviceLink is ready and can be used with DeviceLink capable applications (e.g. Adobe Photoshop Cs4, *basIColor LINKflow* or in other Adobe products with the help of *basIColor demon*).

Important: DeviceLink profiles created with a demo version of *basIColor dragLINK* are encrypted and can only be tested in a demo version of *basIColor LINKflow*. In other applications, using these profiles result in wrong colors to be displayed.

3.1 basIColor dragLINK Variants

Every product of the *basIColor dragLINK* series is optimized for a different environment. With every module you get an economic solution, specially optimized for your workflow (photo, print, proof, inksaving).

On the next pages, each variant of *basIColor dragLINK* will be listed. A table will inform you about the color spaces usable with that special module.

3.1.1 basIColor dragLINK photo

basIColor dragLINK photo can use RGB-ICC profiles only. It is optimized mainly for photographers who want to convert their data with optimal quality from a digital camera to a standardized working space or who want to output their data on a RGB printer.

basIColor dragLINK photo allows the following profile combinations:



device type	source	destination
Scanner / digital camera	✓	✗
Monitor	✓	✓
RGB-working space	✓	✓
RGB-printer	✓	✓
CMYK-working space	✗	✗
CMYK-printer	✗	✗



3.1.2 basICColor dragLINK proof

basICColor dragLINK proof creates DeviceLink profiles that lets color data printed out with color printers have the look of been created on press. Use cases are recognizing color shifts that may occur before actually going to press.

basICColor dragLINK proof supports the following profiles:

device type	source	destination
RGB-printer	✗	✓
CMYK-printer	✓	✓



3.1.3 basICColor dragLINK save

basICColor dragLINK save creates DeviceLinks aimed to save ink. The total area coverage will be reduced by approximately 10%. This mechanism is only possible with CMYK profiles, because only here color combinations of CMY can be replaced by the black ink.

basICColor dragLINK save supports the following profiles:

device type	profile
CMYK-working space	✓
CMYK-printer	✓



3.1.4 basICColor dragLINK proof

basICColor dragLINK print creates DeviceLink profiles that result mainly in optimized colors on digital printing machines (e.g. color laser printers).

basICColor dragLINK print supports the following profiles:

device type	source	destination
Scanner / digital camera	✓	✗
Monitor	✓	✗
RGB-working space	✓	✗
RGB-printer	✓	✗
CMYK-working space	✓	✓
CMYK-printer	✓	✓



3.1.5 basICColor LINKflow

basICColor LINKflow is a program that let's you apply Device-Link profiles on you image data. Just drop an image (TIFF, PSD, JPG or PNG) onto the left side and a DeviceLink profile onto the right side, and your image get's converted. *basICColor LINKflow* will warn you if the combination does not fit or any information is missing. You can choose then if you want to convert anyway or cancel the operation. With a demo version of *basICColor LINKflow* you can tryout encrypted demo profiles created with *basICColor dragLINK*.

Chapter 4

DeviceLink Fundamentals

4. DeviceLink fundamentals

The main task of DeviceLink profiles is converting color data from one color space to another. The main difference to „normal“ 2-profile ICC based conversions is that a DeviceLink does not use an intermediate Profile Connection Space (PCS; that is XYZ or Lab). Conversions take place directly from source space to destination space.

A benefit of this approach is that some parameters of the source space can be transformed to the destination space unchanged or optimized (e.g. pure RGB values -> R,G,B=255,0,0). A drawback of a DeviceLink profile is that it is a permanent connection of two color spaces. If you want to use a different source or destination space, you need to craft another DeviceLink profile for that task.

By using a direct conversion from source to destination, optimized routines can be used for color conversion. Also, exceptions or special rules can be applied for certain color areas. This is only possible with DeviceLink profiles.

A „normal“ ICC-transformation through PCS cannot meet this criterias.

Chapter 5

Product Information
basIColor dragLINK

5. Product Information basIColor dragLINK

Software - Copyright 2009 basIColor GmbH. All rights reserved.

Manual - Copyright 2009 basIColor GmbH. All rights reserved.
Any unauthorized duplication of this manual, in whole or in part, is strictly forbidden without the express written permission of the owners.

The information in this manual is furnished for informational use only, is subject to change without notice, and should not be construed as a commitment by basIColor GmbH. basIColor GmbH assumes no responsibility or liability for errors or inaccuracies that may appear in this document.

Any mention of names in samples or screenshots is for educational purposes only - a relation to existing organisations is not intended.

basIColor is a registered trademark of basIColor GmbH.
Apple, Mac, Mac OS, Macintosh, Power Macintosh and ColorSync are registered trademarks of Apple Inc.
Adobe Photoshop, Adobe InDesign, Adobe Illustrator and Adobe Acrobat are registered trademarks of Adobe Systems Incorporated.
All other trademarks or registered trademarks are the property of their respective holders.

Authors: Tim Seher and Rolf Gierling
Edition 1.0, January 2009