

**PrintFab for Mac**  
Software Manual  
Version 3  
(Document Revision 2601)

**ZEDOnet GmbH**  
Sedanstraße 8  
87600 Kaufbeuren  
Germany

Tel. +49 (0) 8341 9083905  
Fax +49 (0) 8341 9083906  
Email: [mail@zedonet.de](mailto:mail@zedonet.de)

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# 1. License terms

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If you are using PrintFab trial version, you may use it for test purposes up to 30 days.

With a personal license key you have the non-exclusive right to use PrintFab only on a single computer (multi user license: on the number of licensed computers). A license is required for every computer where PrintFab is installed.

## Disclaimer

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## Trademarks

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## 2. Welcome to PrintFab!

We are happy to welcome you as a user of PrintFab, our innovative enhanced quality printer driver & RIP software.

### **Key features:**

#### **Intelligent printer drivers**

No need to adjust settings like brightness, color saturation, color balance etc. Simply choose your printer, paper type and print quality – the rest is done by PrintFabs intelligent printer drivers (of course expert users can control all settings manually).

Our drivers support nearly all features of your printer like special print media, CD/DVD printing on certain printers, photo inks and highest print resolution.

#### **Color management**

A highlight of PrintFab is the new integrated color management – it is easy to use and ensures perfect colors. You can choose the document color space, adjust the light source and correct color & grey balance.

#### **Improve your photo quality**

Using the color profiles that are included with PrintFab (and additional color profiles either from ZEDOnet's profiling service or your own ICC profiles) each shade of color is perfectly matched in the printout.

It is also possible to add ICC profiles for your scanner or digital camera for perfect color matching from your input device to printer output!

#### **Print Preview**

You can preview a print job via PrintFab Composer and edit pages, e.g. enlarge or remove sections of a page or delete pages.

#### **PrintFab Composer**

The Composer is a powerful layout application that can load and print images and PDF files directly. For example, you can have photos automatically arranged on pages or place them individually, crop images and much more.

PrintFab Composer avoids problems with color management, because all steps from loading images or documents to printing are done in one place. With the soft proof function, you can simulate the colors of the printout on the screen in advance.

#### **CMYK proof printing**

The "Pro" version of PrintFab also supports CMYK proof prints with exact colors – from PrintFab Composer or directly from applications like Adobe Reader / Acrobat, Corel-Draw, Indesign, PhotoShop, QuarkXPress etc.

#### **Color profiling service**

Using our profiling service you can further improve print quality – especially if you are

using compatible ink cartridges or print media that are not directly supported by our drivers. We create individual color profiles at a very affordable price – no expensive hard- & software is required!

PrintFab can print a color chart page with approx. 800 color patches. The ZEDOnet profiling service will measure the color chart with a spectrophotometer and send you an individual color profile by e-mail.

With an individual color profile, color reproduction becomes more accurate. It also ensures the best print quality on third party paper and ink.

### **Ink management**

PrintFab not only matches document colors to printed colors, it also allows you to control the mix of inks applied to the paper. PrintFab's intelligent ink saving mode can reduce ink consumption by 25-50% without producing pale looking pictures. This is done by limiting the maximum amount of ink used in saturated colors and by using more black ink in dark areas instead of mixing dark shades with color inks. With photo printers, PrintFab can also reduce photo ink consumption and use the darker (and more economic) regular inks instead.

### **Sublimation printing on textiles and other materials**

PrintFab is the ideal software for sublimation printing. With sublimation printing, the color reproduction differs significantly from printing with normal inks on paper. An individual color profile is recommended as there are several suppliers of sublimation ink and transfer paper and the color reproduction also depends on the printed material. With our color measurement service you can also create color profiles for sublimation.

### **Screen printing and DTF printing (PrintFab Pro XL)**

Screen printing mode is a special printing mode for black and white printing on film with high opacity for subsequent exposure. This mode is ideal for printing films for screen printing, PCB creation, cliché printing, etc. DTF printing is a special textile printing mode that also uses the special color white. PrintFab supports DTF printing for some Epson printer models.

We wish you a lot of fun and the best printing results with PrintFab!

## 3. Installation and printer setup

### 3.1 Installing / uninstalling PrintFab

To install PrintFab on your computer just start the PrintFab installation tool “Install PrintFab”. Choose if you want to install PrintFab or if you want to uninstall a previously installed version.

For installing or uninstalling PrintFab you will be asked for your user password to authorize the installer to copy certain system files.

When installing PrintFab you can have PrintFab installed as full version by loading a personal keyfile (i.e. your license key) with the “Select keyfile” button. Without a key file PrintFab will be installed as demo version.

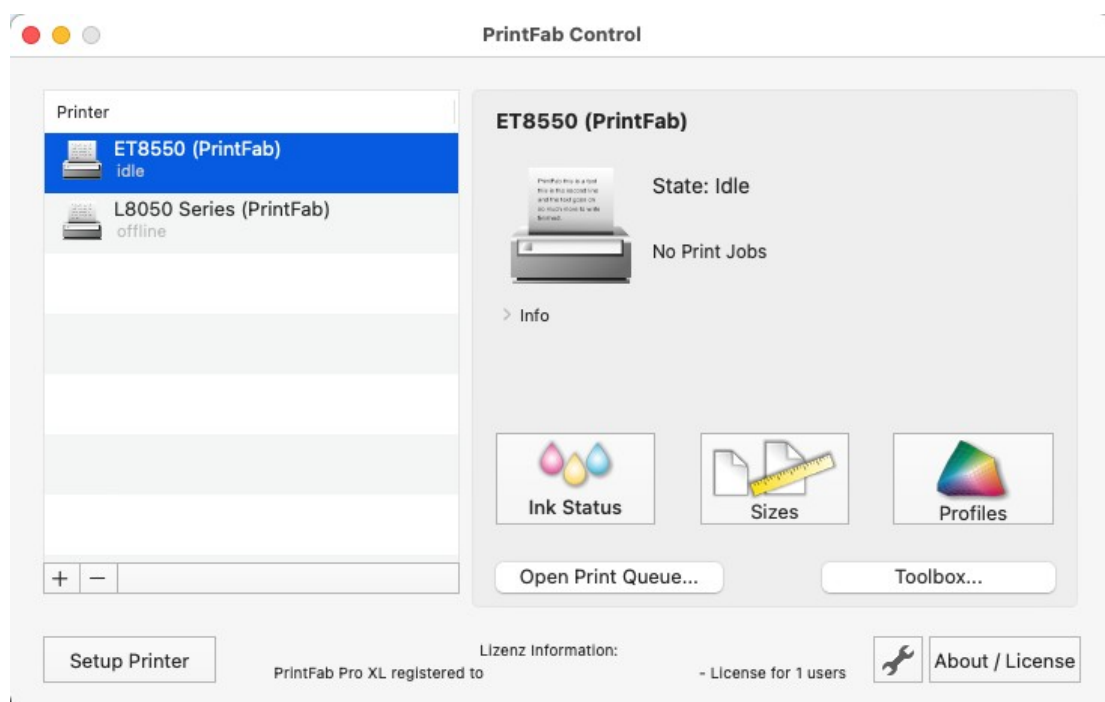
You can purchase a PrintFab keyfile in our online-shop at [www.printfab.net](http://www.printfab.net). It is also possible to activate your PrintFab demo installation later with a key file.

During the installation process PrintFab will also install the software package “Ghostscript”. This software enables you to easily print postscript documents. As it is distributed under GPL license we are able to include it in the PrintFab package for your convenience. It will be removed automatically when PrintFab is uninstalled.

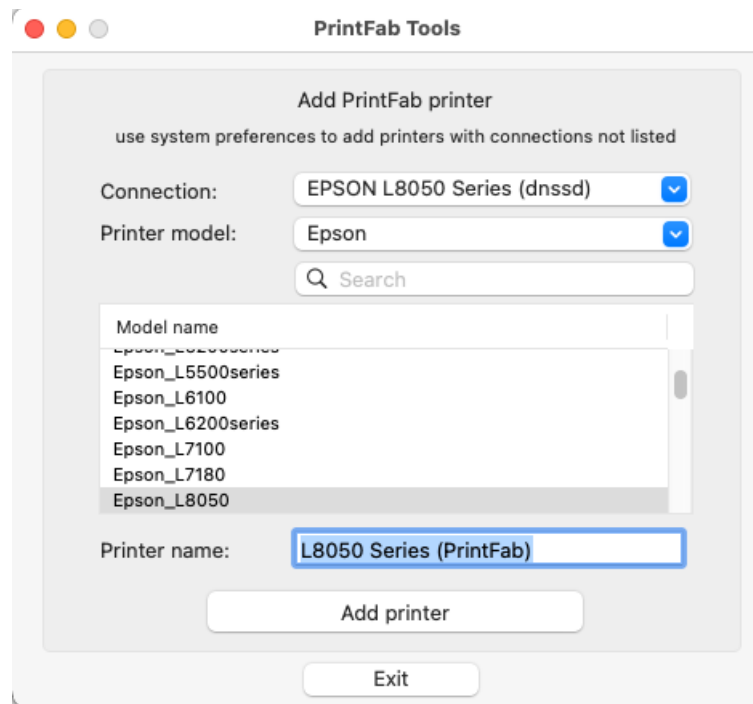
### 3.2 Setting up a printer

Before your printer can be used with PrintFab, it must be set up in the PrintFab Toolbox.

Start the control center with the icon "PrintFab". The main window looks as follows, however the list of printers will be empty first:



Press the button "Setup Printer" to add a new printer. The dialog "Add PrintFab printer" will open:



The selector "Connection" shows printers that are connected via USB port and network printers that could be automatically detected. After selecting the printer connection, please verify if the correct printer driver has been selected and choose the correct driver if necessary.

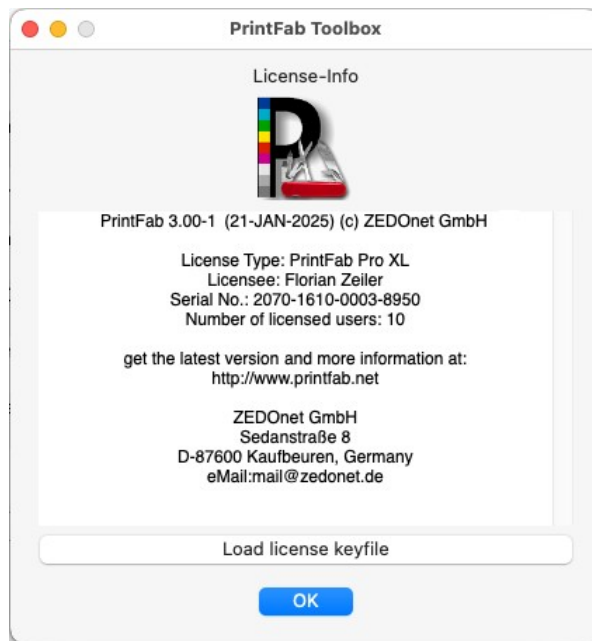
To install printers with other connections (e.g. network printers that are not automatically detected), please use the macOS "System Settings" - "Printers & Scanners" (see chapter "5.3 Setting up a printer with macOS "System Settings" on page 14).

### 3.3 Licensing PrintFab

After the trial period PrintFab must be activated with a license key file – otherwise a "PrintFab" logo will be added on every printed page.

A license key can be purchased on our web site [www.printfab.net](http://www.printfab.net). To activate PrintFab with a license key file, start the PrintFab Toolbox and select the option "About / license". In the license info dialog, click "Load license key file". A file selection dialog will open where you can select the key file. After selecting the file click on "Open".

If the key file was accepted, your name and license type will be displayed in the window.



Another possibility is to start the registration process by double clicking the license key file - the dialog shown above will display your PrintFab license information.

## 4. PrintFab Toolbox

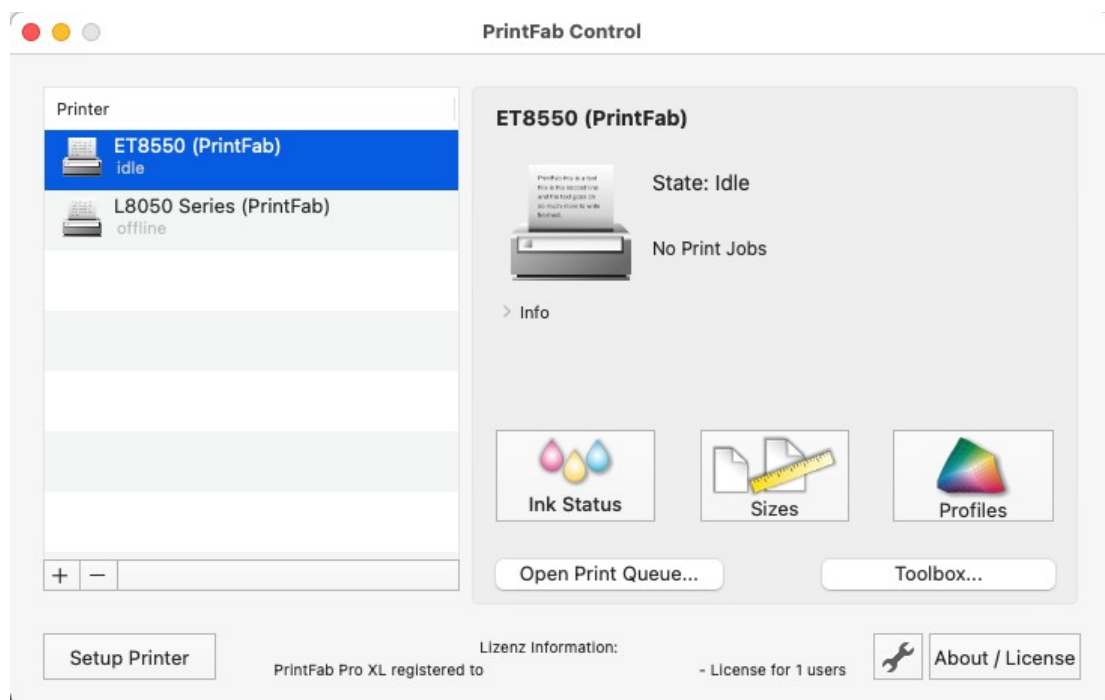
Using the PrintFab Toolbox, you can

- add or remove printers
- display ink status
- execute maintenance tasks (nozzle cleaning, head alignment, etc.)
- manage color profiles, print color charts for profile creation
- add user defined page formats

After installation of PrintFab you can find the Toolbox in the “Applications” directory.

### The Toolbox main menu

When starting the Toolbox, the main menu with a table of all installed PrintFab printers is displayed.



### List of printers

You can add a PrintFab printer, or select an installed printer and execute a maintenance job or manage a printer's color profiles.

To add a PrintFab printer press “Setup Printer” or the symbol “+”.

You can remove a PrintFab printer with symbol “-” below the list of printers.

A detailed description of these functions can be found in chapter ["5. Setting up a printer"](#).

## Printer specific functions

- **Ink Status** - show ink supply status
- **Sizes** - define custom page sizes and adjust CD print settings (chapter ["7. Custom page size editor"](#))
- **Profiles** - opens the color profile administration (chapter ["8. Profiles" - color profile administration"](#))
- **Open Print Queue** - show the print queue with documents that are being printed
- **Toolbox** - open printer toolbox for maintenance functions e.g. test page, nozzle check, cleaning, head alignment (chapter ["6. Printer Toolbox - Maintenance Functions"](#))

## Settings (symbol "Wrench")

In this dialog you can change the hotfolder directory and create a ZIP archive with log files.

## Licensing PrintFab

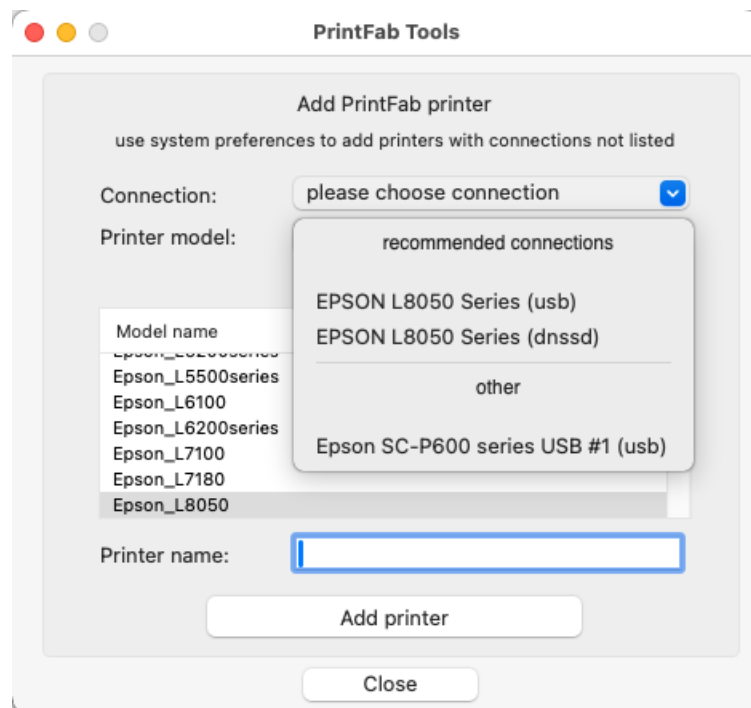
With the button "About / License" you can display license information and activate PrintFab with a personal license key file.

## 5. Setting up a printer

This chapter describes printer setup with PrintFab Toolbox.

Press the button "Setup Printer" to add a new printer.

### 5.1 Selecting the printer port



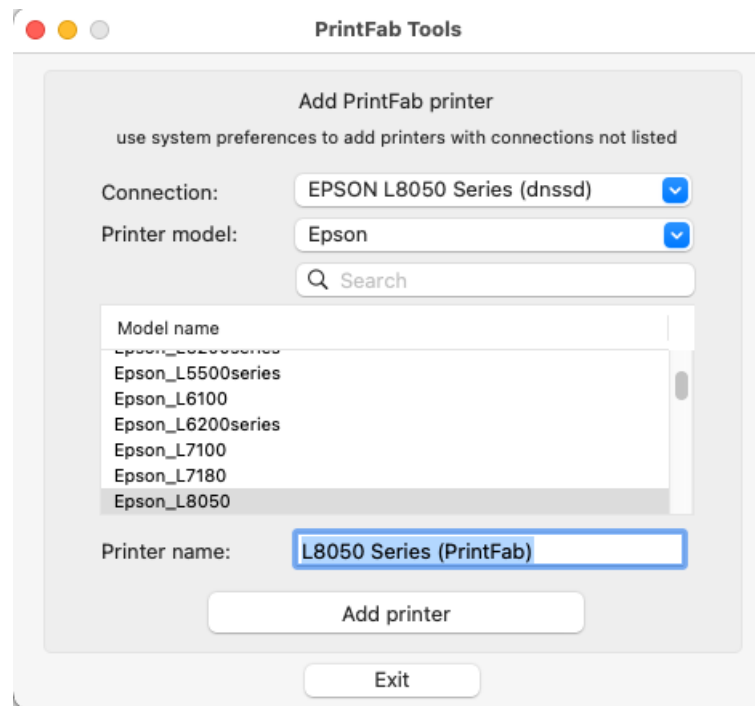
The selector "Connection" shows printers that are connected via USB port and network printers that could be automatically detected via the DNSSD / Bonjour protocol.

If your printer is not listed, make sure that it is properly connected to your Mac (USB or Ethernet cable) or to your WiFi network.

To install printers with other connections (e.g. network printers that are not automatically detected), please use the macOS "System Settings" - "Printers & Scanners" (see chapter ["5.3 Setting up a printer with macOS "System Settings" on page 14](#)).

## 5.2 Selecting the printer driver

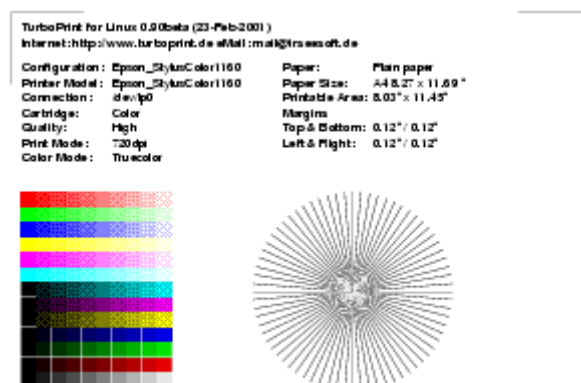
Please select the manufacturer of your printer with the selector "Printer model", then select the model name of your printer in the list below.



The next step is to enter a printer name. We recommend to add "PrintFab" to the printer name, this way you can distinguish between the PrintFab driver and the manufacturer printer driver in the application print dialog.

Finally click "Add printer".

After successful printer you should print a test page – thus you can test if all settings are correct. You can print the test page by opening the dialog "Toolbox...", then press the button "Print Test Page". The printer should start printing a page that looks like this:

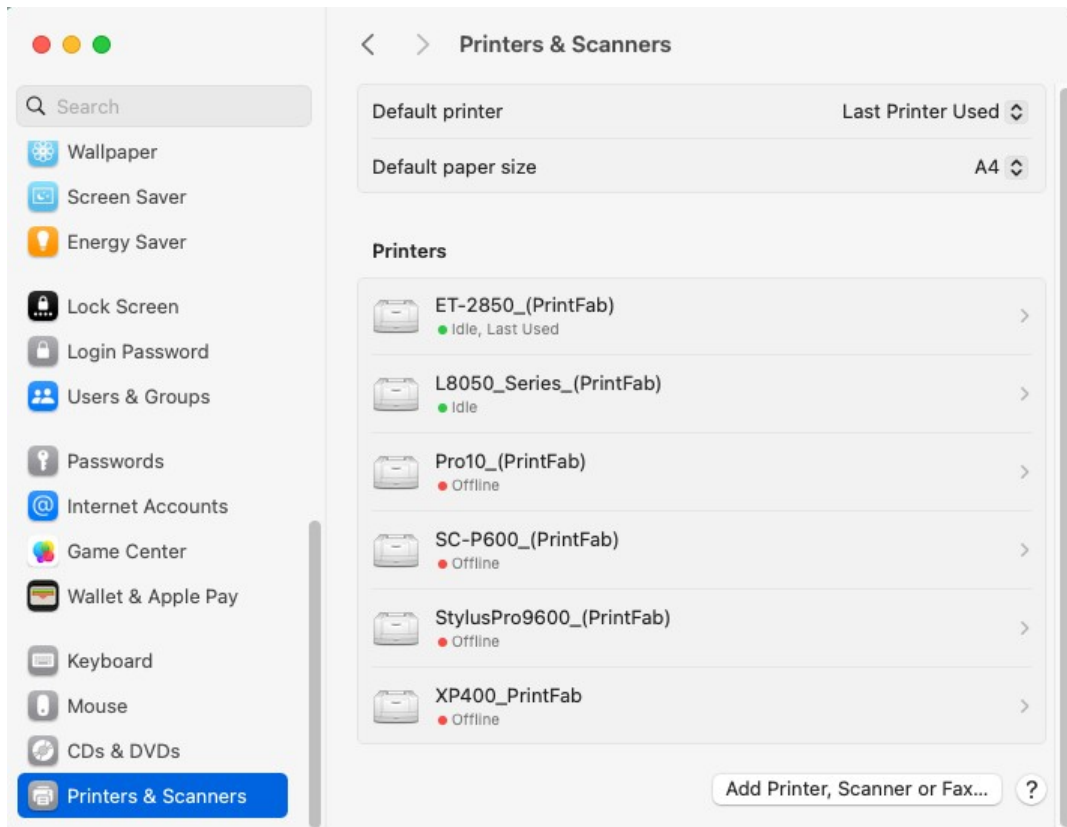


If the printer doesn't print (or doesn't print correctly) read chapter ["16. Problems and solutions"](#).

## 5.3 Setting up a printer with macOS "System Settings"

This chapter describes how to set up a PrintFab printer that is not connected via USB interface but via any other connection.

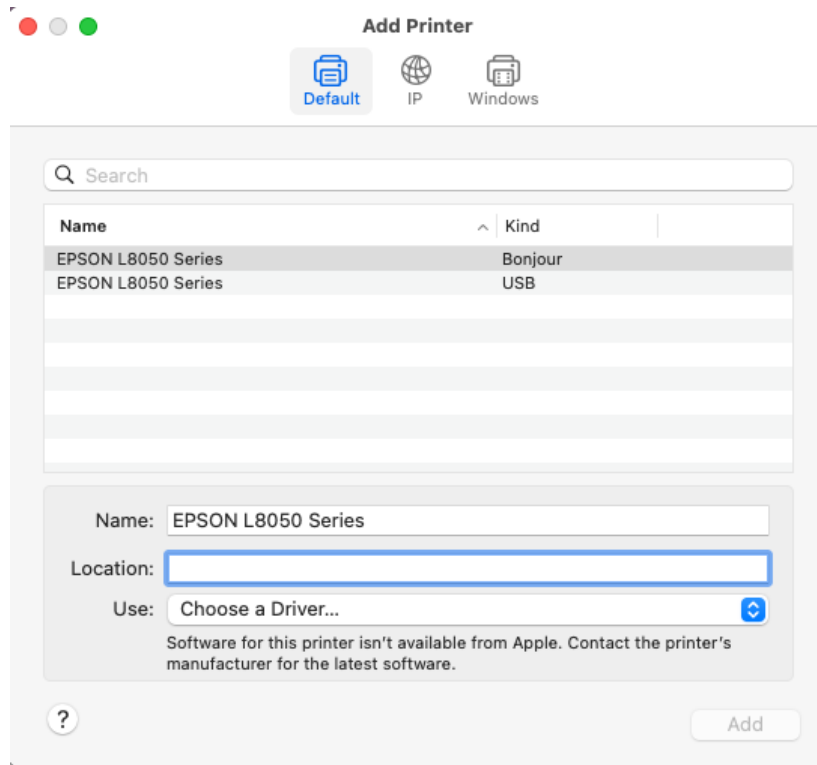
Open "System Preferences" (located in the "Applications" directory), then select "Printers & Scanners" and click on "Add Printer, Scanner or Fax" to add a new printer.



A dialog window opens which offers several choices: "Default" for printers that are automatically detected, "IP" for network printers, "Windows" for Windows network printers. There are further buttons for other connections that must be configured manually.

## Choosing a printer in “Default”

Click on “Default” and a list of all automatically detected printers appears.



All local and network connections are searched for printers. The name and connection type (e.g. USB, Bonjour, ...) of all printers that can be found are listed. If a printer is connected by more than one connection (e.g. USB and network cable or several network protocols) it is shown more than once.

If your printer is not listed, either the type of connection is not supported or it cannot be detected automatically and the connection must be set up manually (e.g. “IP Printer” or “Windows”, see below). Some printers can only be detected if they were already powered up during system boot – you may try to reboot your computer while the printer is connected and switched on.

If your printer is listed, select it and choose a PrintFab printer driver (see section after next).

## Setting up an IP printer (network printer)

This dialog is for setting up a printer manually that is connected via network and is not listed in the standard browser (except Windows printers – see next section).

The screenshot shows the 'Add Printer' dialog box with the 'IP' tab selected. The 'Address' field is filled with '192.168.17.34'. The 'Protocol' dropdown menu is set to 'HP Jetdirect - Socket'. The 'Queue' field is empty. The 'Name' field is filled with 'Epson L8050 PrintFab'. The 'Location' field is empty. The 'Use' dropdown menu is set to 'Select Software...'. There is a help icon '?' and an 'Add' button at the bottom right.

Three different network protocols are available:

- Internet Printing Protocol - IPP
- Line Printer Daemon - LPD
- HP Jet Direct - Socket

Most printers or printer servers accept “HP Jet Direct – Socket” protocol. If printing using this protocol does not work (or does not work reliably), you should try “Line Printer Daemon – LPD”.

### **Address:**

Enter the network address (ip address) of your printer or print server. Like every computer in a network also network printers have a unique address (e.g. 192.168.17.34).

Please see your printer manual or ask your network administrator how to determine the ip address.

In most cases the network address can be found in the printer's set up menu. Some printers print a page containing network address and other network information when a button is pressed.

### **Queue (required for IPP or LPD protocol)**

Here you can specify the name of a print queue. This is important if several printers can be accessed on the same ip address e.g. on a print server with several printer ports. In most cases the first printer can be reached with the queue name “lp0” or “lp”, the second as “lp1” etc.

With “Internet Printing – IPP” protocol queue names are more complex – see the manual of your printer or print server for details.

If you want to connect to a server with CUPS printing system using “IPP” protocol, the queue name must be “printers/” plus name of the local queue on the server , e.g.

`printers/epson-18050`

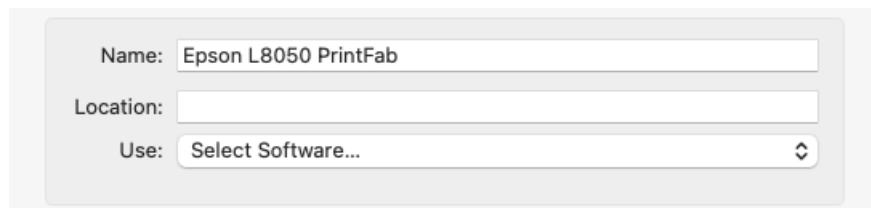
### **Setting up a printer shared by a Windows PC**

The button “Windows” opens a dialog to set up printers that are connected to Windows computers. Choose a workgroup and a computer – a list of shared printers will appear.

Select the desired printer and choose a PrintFab printer driver (see next section).

### **Choosing a PrintFab driver and adding the printer**

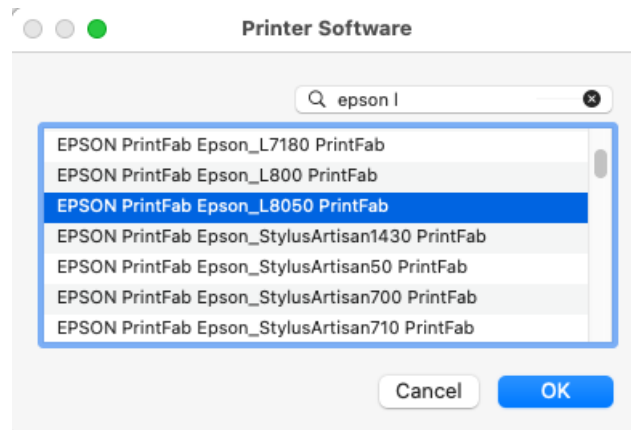
Enter a printer name in the field “Name” - this name will be listed in the application's print dialog.



The image shows a dialog box for adding a printer. It has three main fields: 'Name', 'Location', and 'Use:'. The 'Name' field contains the text 'Epson L8050 PrintFab'. The 'Location' field is empty. The 'Use:' field is a dropdown menu currently showing 'Select Software...' with a small arrow icon on the right side.

It is recommended to add “PrintFab” to the name, e.g. “Epson L8050 PrintFab”. This way you can see which printer entry uses the PrintFab driver (if also a manufacturer's driver has been set up for the same printer).

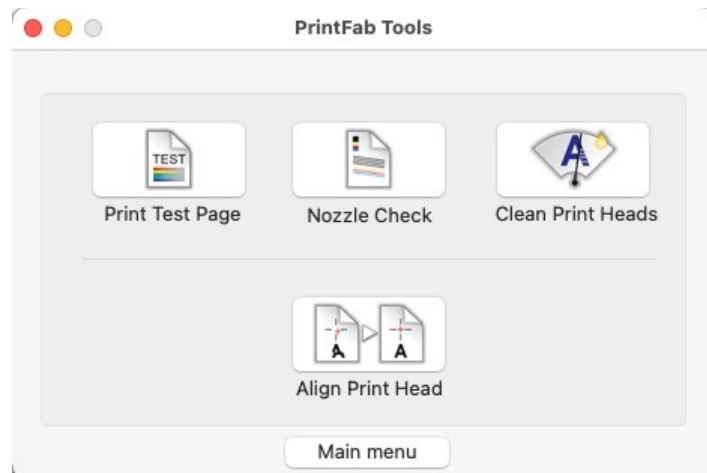
Now choose the correct PrintFab driver: In the drop down list “Use:” choose “Select Software...” and choose the driver. All PrintFab driver entries end on “PrintFab”, so you may enter e.g. “Epson PrintFab” in the search field to show only PrintFab drivers for Epson printers. Now select the printer model.



Finally press “Add” to finish printer setup. The new printer will be also visible in the PrintFab Toolbox app.

## 6. Printer Toolbox - Maintenance Functions

The dialog "Toolbox..." offers printer maintenance functions.



Depending on the printer the following functions are available:

- **Print Testpage**
- **Nozzle Check**
- **Clean Print Heads**
- **Align Print Head**

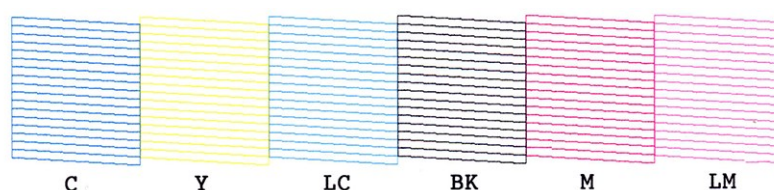
After selecting one of these buttons the selected maintenance job is performed or an additional menu with some further choices will be displayed (e.g. clean black or color print head)..

### 6.1 Print Testpage

It is recommended to print a test page after adding a printer - or if printing from applications does not work properly. The "test and status page" also contains important information on printer setup.

### 6.2 Nozzle Check

Use this function to check if the print head is working properly. A sheet of A4 or Letter sized paper is required. For each ink color a test pattern is printed.



Each nozzle of the print heads prints a line. If one or several lines are missing or “smeared”, the toolbox function “Clean Print Heads” should be executed.

### 6.3 Clean Print Heads

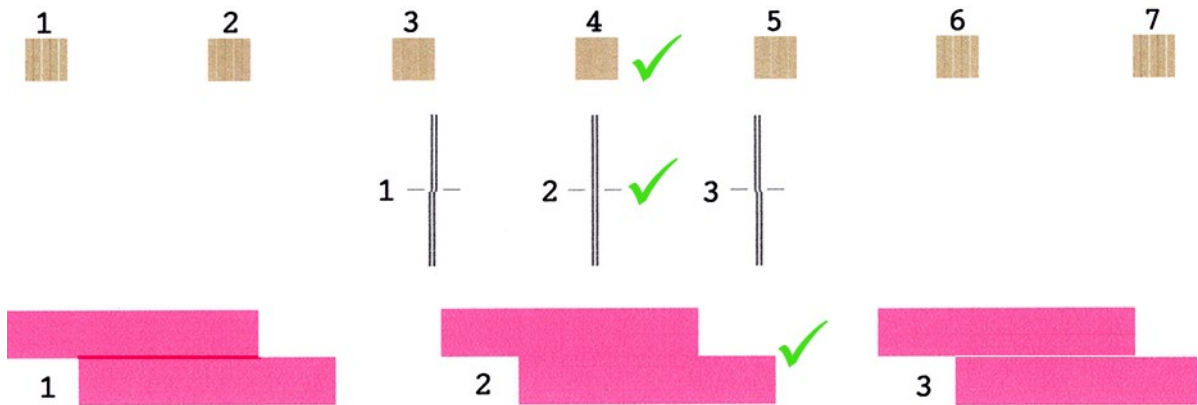
Starts automatic head cleaning. It is normal that ink nozzles get clogged from time to time, so print quality is reduced (e.g. "banding"). In this case print a “Nozzle Check” page and start print head cleaning if necessary.

**Important:**

Cleaning consumes some ink, so this function should only be executed if necessary.

### 6.4 Align Print Head

Align the black & color print heads and / or align bidirectional printing. The alignment procedure depends on the printer model. Usually a page with several lines of test patterns is printed. For each line, the number of the best aligned pattern must be entered (e.g. choose the field where two lines align best or where the least “banding” is visible).



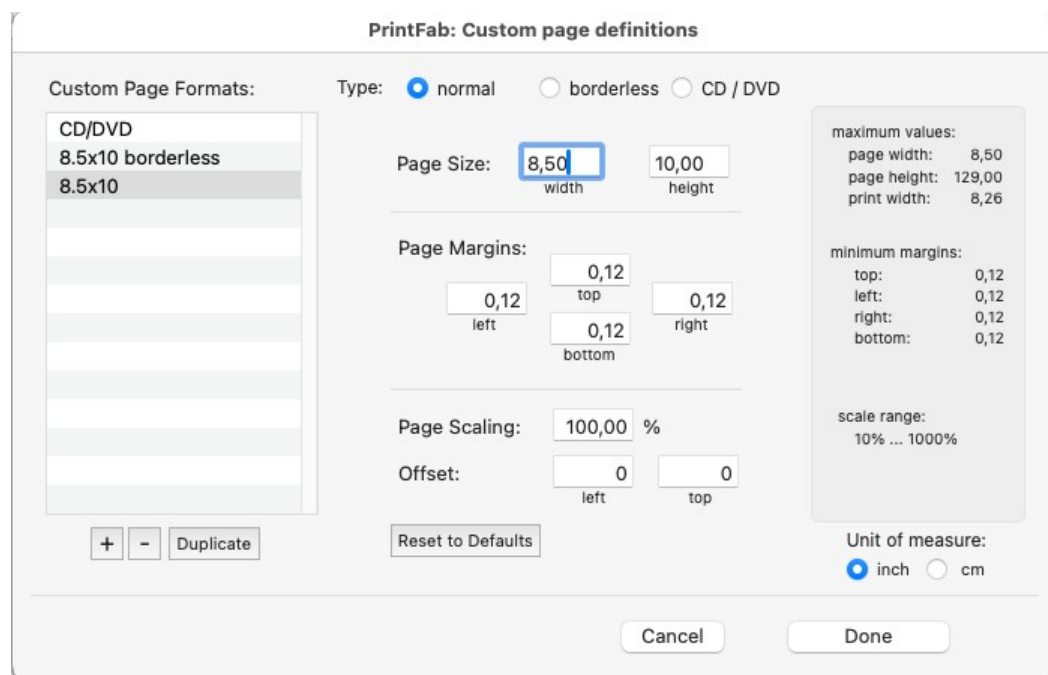
## 7. Custom page size editor

New printer specific page formats can be defined in this dialog. This is especially important with large format printers and / or roll paper for efficient paper usage.

It is also possible to adjust the printable area of CDs / DVDs – you can specify the CD/DVD diameter and the area around the center hole that cannot be printed on.

Moreover you can set a scale factor (e.g. enlarge from A5 to A4 size) or enter offsets to adjust print position on the page.

You can reach the custom page size editor from the PrintFab control center program with the button “**Sizes**”.



All user defined sizes are shown in the list on the left. Page size, margins, scaling and offsets are displayed (or entered) in the middle of the dialog window. An information field on the right shows maximum paper size and minimum margins. The unit of measure can be switched to either “inch” or “cm” (1 inch = 2,54 cm) on the bottom right.

### 7.1 Adding a new page size

Use the button “+” to add a new page size. A new list entry named “new format” will appear – you can change the name by double clicking on the list entry. Choosing a significant name will make it easier to find the size in the application's page setup later.

Three different page types can be chosen:

- **normal**
- **borderless** (only for printers capable of borderless printing)
- **CD** (only for printers that can print on CDs)

## Page format “normal” and “borderless”

Please make sure that the correct “**Unit of measure**” = “inch” or “cm” is selected.

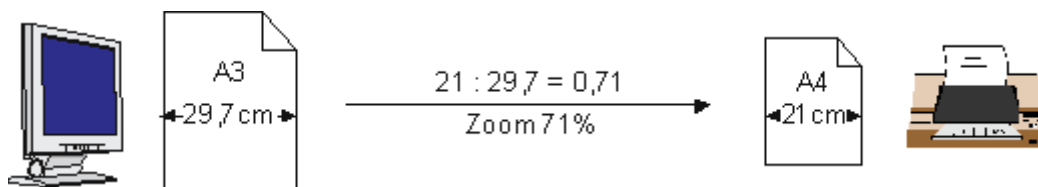
For regular page sizes please enter the dimensions of the paper. The printable area is defined by the left, right, top and bottom margins. For technical reasons most printers leave a small margin at the paper edges, which means that margins must not be smaller than the minimum margins listed in the table on the right.

Some printers can print “**borderless**” but only for certain standard page sizes or certain print widths. One reason is that only for certain sizes ink absorbers are present that prevent ink from getting into the printer mechanics. This means that even for those printers only certain borderless custom page sizes can be defined.

### Scaling:

This setting is for scaling print size. For example an A3 sized document can be printed on an A4 printer without having to reformat the document – or an A4 document can be automatically enlarged and printed on A3 paper.

The scale factor can be defined in percent, “100%” means that no scaling is performed. Page size and margins always refer to the actual print size.



**Example:** Define a custom page format that reduces A3 documents to A4 size

Enter 21.0 x 29.7 cm (or 8.27 x 11.69 inch) – the actual print size is A4. Page margins are left at minimum. The scale factor is calculated as print size divided by document size:

$$21\text{cm} / 29.7\text{cm} = 0.707 \Rightarrow \text{“71%” is the correct scale factor}$$

In the application program the dimensions of the new page format will be A3.

If no scaling is desired, enter 100%.

### Offset

On some printers paper is not exactly positioned due to mechanical tolerances. Thus the printout may not be positioned exactly as defined by the driver (e.g. printout is shifted to the left or right). Use the “Offset” fields to correct the print position.

The “left” offset specifies how much the printout should be shifted to the right. E.g. 0,1cm means the printout will start 0,1cm further to the right.

This correction is not visible in the application program, only the printer is affected.

Please note that specifying an offset will increase unprintable margins. Moving the print-

out to the right (left) will increase the unprintable right (left) margin. Accordingly moving to the bottom (top) will increase the unprintable bottom (top) margin.

### **CD printable**

For CDs / DVDs the diameter of the inner circle (center hole) and outer circle can be specified. Also an offset can be specified to adjust the printout horizontally & vertically.

A negative value in the field “**left**” or “**top**” will shift the printout to the left or top, a positive value will shift to the right or bottom.

### **Deleting a custom page size**

Pressing the button “-” will delete the currently selected custom page size. No warning will be shown. However, you can undo all changes by leaving the custom page size dialog with the “Cancel” button.

### **Duplicate**

This button duplicates the currently selected page size.

### **Reset to defaults**

Pressing this button will reset page dimensions to maximum values for this printer. Page margins will be reset to minimum values.

Select “OK” to confirm your changes in the custom page size menu. “Cancel” will discard all changes since entering the page size menu.

## 8. "Profiles" - color profile administration

The button "Profiles" on the main window of the PrintFab control center program opens the color profile administration menu.

In PrintFab's profile administration there are two categories of profiles: **Printer profiles** describe the color conversion for a certain printer, type of paper and ink. **Color spaces** describe colors in documents and how they should be interpreted / printed (on any printer as far as possible).

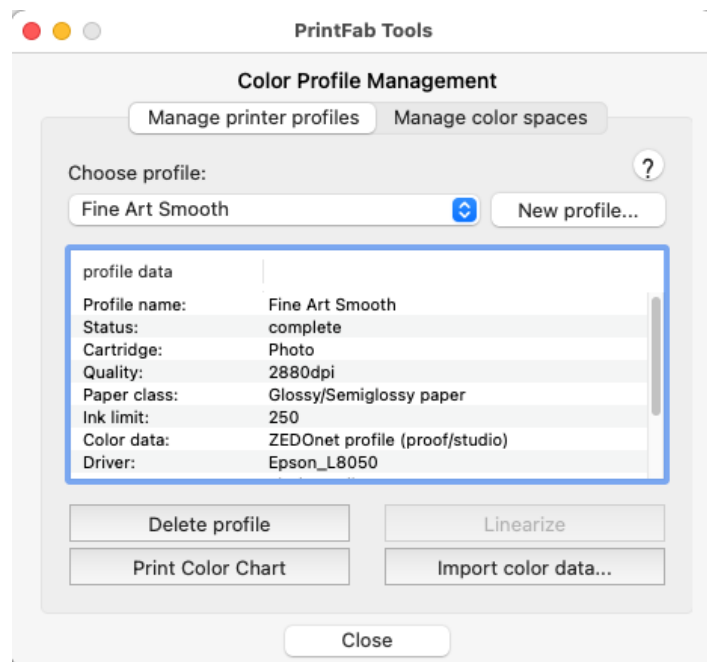
### Important note on importing ICC profiles:

It doesn't make sense to import standard ICC profiles that are available from paper manufacturers or printer manufacturers. Such profiles are for use with the manufacturer's printer driver only – and thus do not produce correct colors using other drivers. The reason is that ink mixing (Black vs CMY inks), rastering technique and base linearisation of PrintFab is not identical with the manufacturer's printer driver. Thus already the unprofiled output is different and the ICC profile will not match properly.

For accurate colors, the color chart that is measured for a color profile must be printed with PrintFab.

### 8.1 Index card "Printer Profiles"

Here you can find the list of PrintFab color profiles that you have added to your printer. Only profiles that were created individually for this printer are listed, so initially the list is empty.



## List of color profiles

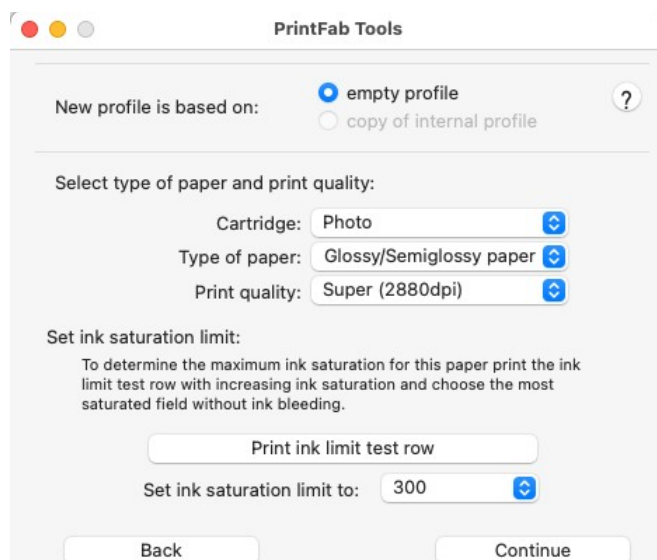
In the drop down list "Choose profile" you can find the profiles that have been added for the current printer. The following information is shown for the selected profile in the table below:

- **Profile name** with this name the profile is listed in the print dialog's "Media type" or "Paper type" selector
- **Status** "incomplete" after creation of a new profile entry, "complete" when color profile data have been assigned using "Import color data".
- **Cartridge** additional print options (only available for some printers)
- **Quality** print quality for which the profile was made
- **Paper class** type of paper, e.g. plain paper, glossy photo paper etc.
- **Ink limit** the maximum ink saturation
- **Color data** name of color profile and type (ICC / ZEDOnet)
- **Driver** name of printer driver
- **User** name of user the profile was created for
- **Paper manufacturer, Paper, Ink manufacturer, Ink** additional information on profile

## "New Profile"

First create a new profile entry with the button "New profile". This entry is "empty", i.e. it doesn't yet contain color correction tables. The new entry can be used to create a new profile using our ZEDOnet profile creation service. If you have the necessary equipment (spectrometer, profile creation software), you can also create and add your own ICC profile.

In the following dialog please select the type of profile you want to create:



The screenshot shows a dialog box titled "PrintFab Tools". At the top, it says "New profile is based on:" with two radio buttons: "empty profile" (selected) and "copy of internal profile". Below this, there is a section "Select type of paper and print quality:" with three dropdown menus: "Cartridge:" set to "Photo", "Type of paper:" set to "Glossy/Semiglossy paper", and "Print quality:" set to "Super (2880dpi)". Underneath, there is a section "Set ink saturation limit:" with a text box containing "Print ink limit test row" and a dropdown menu for "Set ink saturation limit to:" set to "300". At the bottom, there are "Back" and "Continue" buttons.

In the section “**Select type of paper and print quality**” choose the desired print parameters for the new profile. It is important to choose these settings carefully because color reproduction changes slightly with print quality, maximum ink saturation, type of paper, etc.

The setting “**Cartridge**” is only available for some printers. It is used to control printer specific settings like “color” or “photo” print cartridge inserted, gloss optimizer on/off, “matte black” or “glossy black” ink used. Choose the setting that shall also be used for later prints with this profile.

The setting “**Type of paper**” controls some printer specific options like print head distance, usage of pigmented or dye black ink, printing speed, dry time, etc.

The following **types of paper** can be selected:

- **Plain paper** for normal paper, e.g. copy paper / (color-) laser paper
- **Matte inkjet paper** for matte coated inkjet paper (not for satin / semimatte photo paper)
- **Glossy paper** for high quality photo papers (glossy, semi-matte / semi-glossy satin or pearl), use this setting also for **FineArt Baryta**
- **Transparency** for projectors, film for silk screen exposure
- **Fine Art paper** thick, matte paper often with a rough texture like rag or canvas (not for satin / semimatte Fine Art paper like Baryta)
- **Other paper** for a paper that does not match any choice above

You must also select the “**Print quality**” (print resolution) you want to print with on the chosen paper. In many cases you will select the highest quality. A profile can be used with all resolutions but the best results will be achieved with the resolution at which the profile chart was printed.

The “**Ink saturation limit**” specifies how much ink can be applied to the paper. The default (“300%” for CMY/RGB printers, “250%” for all other printers) will give good results in most cases.

Depending on the paper, a different level of ink is needed to achieve maximum color saturation. The more ink is applied, the more saturated colors can be printed. However, if too much ink is applied the inks will flow (“bleeding”).

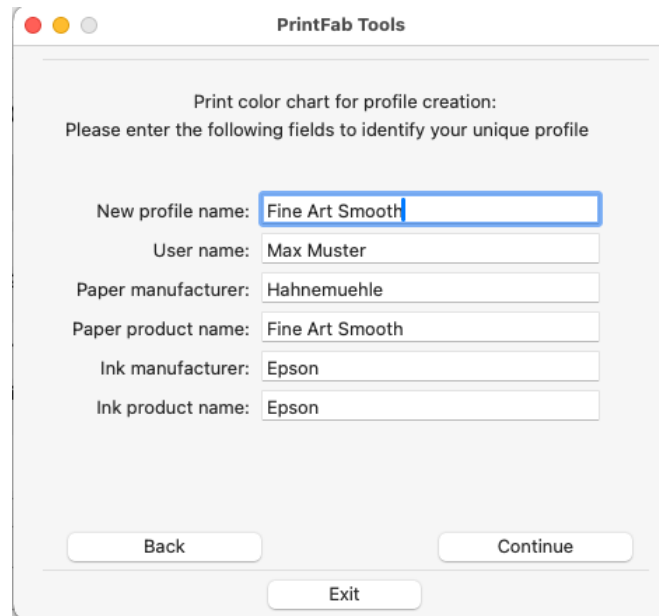
Therefore you can determine the maximum ink level for the chosen paper by printing a line with increasing ink levels. This can be done with the “**Print ink limit test row**” button. You can use the same sheet of paper for this test row that you will use later for printing the color chart.

In the printed ink limit test row, find the box with the highest ink level where the ink does not flow and dries within a few minutes. Set the “ink saturation limit” control to the value printed in this box.

**Attention:**

If the value you choose is too high, the colors of your profile chart will bleed and the chart cannot be measured. If the paper transport rolls of your printer smear the printed boxes of your profile chart, you will need to reduce the ink saturation limit and reprint it.

Press "continue" to get to the next dialog page.



Enter a name for your profile and supply information on paper and ink. The profile name will be visible in the print dialog later – choose a significant name so that you will be able to choose the correct profile. Information on paper and ink will be visible in the profile management menu.

Press "Continue" and you will see a summary of all profile information.

"OK" will finally create a new entry in PrintFab's list of printer profiles.

**Important:**

- The new profile doesn't yet contain any color correction data. Only when you import ZEDOnet or ICC color correction data the "empty profile" will be completed and usable for printing with correct colors.
- The next step will be printing a color profile chart (see below).

## Profile actions

### Delete profile

The currently selected profile will be removed from PrintFab's list of printer profiles.

### Print color chart (for ZEDOnet profile creation service)

With this function you can print a color chart for the ZEDOnet profile measurement service. (If you want to create an ICC profile with your own measurement equipment read the next section).

We offer a low cost measuring-service for users of PrintFab. Send us your printed color chart by mail, and we will measure it and return your individual color profile by email.

Some information will be requested before the color chart can be printed:

Print chart for profile 'Fine Art Smooth'

Printer: L8050\_Series\_(PrintFab)  
Paper class: Glossy/Semiglossy paper  
Quality: Super - 2880dpi  
User name: Max Muster  
E-Mail address: max@muster.de  
Order number: 9010-0890-3159-0179  
Media source: Rear Feed

Chart type:  Proof/studio profile  
 Universal profile (high flexibility)  
 Black-and-white photo profile

Cancel Print chart

Enter your **name** and the **email address** where we shall send the profile data.

In the next line enter the **order number**. To be able to offer the profile measurement service at a low price we have set up an internet order system where you purchase an order number first (at [www.printfab.net/en\\_shop\\_tp\\_profile.phtml](http://www.printfab.net/en_shop_tp_profile.phtml)).

By indicating this order number you prove that the measuring fee is already paid and ensure that you will be sent your individual profile by email without any further requests.

For test prints you can enter the number "9010-0890-3159-0179".

You can choose between three **Chart types**:

- **Proof / studio** for higher color precision (recommended)

Profiles created with this chart type only support a limited number of "ink control" settings in the print dialog (with photo printers the usage of bright cyan and bright magenta cannot be set individually). These charts contain more color shades but less combinations of photo inks and the corresponding regular inks (e.g. photo

magenta and magenta).

- **Universal profile** for higher ink control flexibility

With this profile all ink control settings are available in the print dialog.

- **Black and white photo profile**

This is a color profile that is optimized for printing black-and-white photos, the chart contains mainly colors that are close to gray.

Now insert the sheet of paper that you want to profile. If you already printed the ink saturation row, make sure that you rotate the sheet so that it will be printed on the blank section (i.e. insert the paper with the blank section leading – so the test row would be overprinted last)

Start the printout by pressing “**Print chart**”. It will take some time until the printer starts printing since the color chart must be calculated first.

Let the printed page dry for at least two hours and do not touch it.

### **Notes on sublimation printing**

It is very important that you send in the printed object (T-shirt, coated aluminum plate, etc.) and not the transfer paper. The object must be flat and at least A4/Letter size. It is no problem that the printout is mirrored in the transfer press.

Unfortunately, ceramic cups are not suitable for creating color profiles because they have too little surface area and are round. Alternatively you can print on a white plate coated for sublimation with an area of at least 20x25cm / 8x10inches. When sublimating onto aluminum, place the aluminum plate on top of the transfer paper in the press.

### **Submitting the profile chart**

Put this color profile chart (do not fold it) in a robust envelope and mail it to:

**ZEDOnet GmbH  
- PrintFab color profiles -  
Sedanstrasse 8  
D-87600 Kaufbeuren  
Germany**

If you have to do a declaration of the letter content for customs, make sure to specify a value of 0 (zero), otherwise shipment is delayed and there are tax fees.

Since all information needed is printed on the profile sheet, you do not need to include an accompanying letter. Usually within 7 days after your chart arrives, we will send the calculated PrintFab profile to the email address you specified.

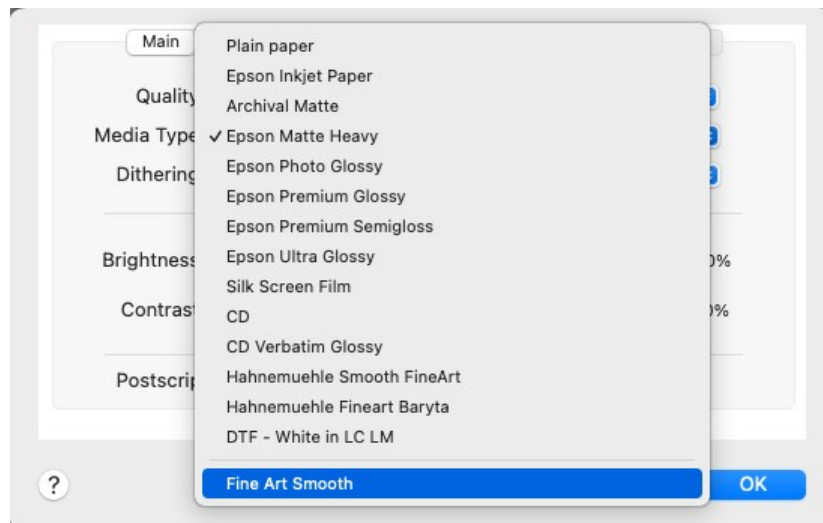
### **Import color data**

Imports color correction data for the currently selected profile entry. Files from ZEDOnet

profile creation service or user-created ICC profiles are accepted. Choose your profile data file in the file selection dialog.

Application programs may have to be closed and opened again before the new profile is available in the print dialog.

The new profile will be shown in the “Media Type” selection of the print settings:



### Important

It doesn't make sense to import standard ICC profiles that are available from paper manufacturers or printer manufacturers. Such profiles are for use with the manufacturer's printer driver only – and thus do not produce correct colors using other drivers. The reason is that ink mixing (Black vs CMY inks), rastering technique and base linearisation of PrintFab is not identical with the manufacturer's printer driver. For accurate colors, the color chart that is measured for a color profile must be printed with PrintFab.

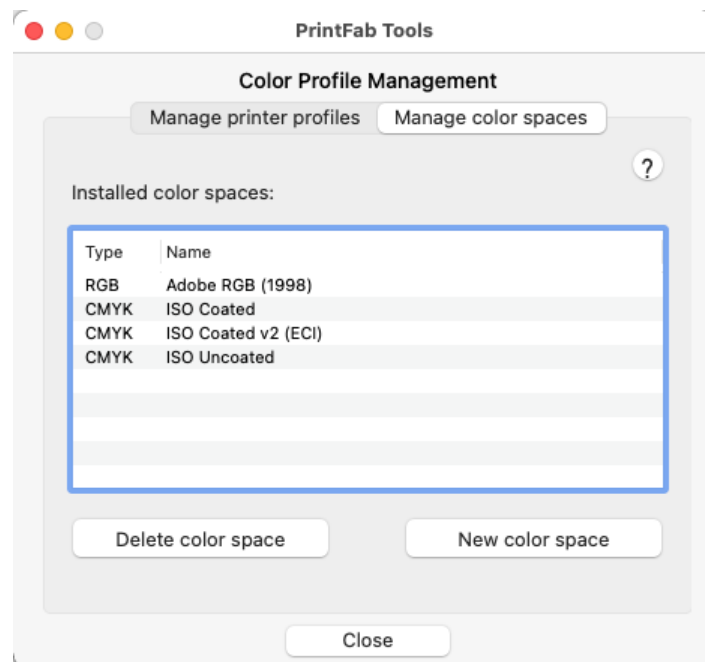
### Rename profile

Change the name of the profile which is shown in the print dialog as “Paper”.

## 8.2 Index card "Color Spaces"

(only available in PrintFab Home L and PrintFab Pro)

Color spaces are required to interpret the colors of a document. The PrintFab driver must be set to the same color space that is used in a document or application program. Some common color spaces are already predefined in PrintFab. Additional color spaces can be added as ICC profiles using this dialog.



Select "**New Color Space**" to add an ICC color profile. Color profiles for RGB devices (e.g. monitor, scanner, digital camera) and CMYK devices (e.g. offset printing) can be imported and used for printing RGB or CMYK documents.

Select your ICC profile in the file selection dialog - PrintFab will display the profile name, copyright and profile type (RGB / CMYK). Press "OK" to install the profile.

After adding the profile, an additional RGB or CMYK color space will be available in the print settings (index card "Color") and also in applications that offer PrintFab settings in the print dialog. Please note that the correct "Color Mode" must be selected (Color RGB / CMYK Proof) to have the new color space listed. An application program may have to be restarted before the new color space will be available.

The button "**Delete Color Space**" removes the selected color space from the list.

## 8.3 Creating individual color profiles

Individual color profiles can either be created inexpensively by the ZEDOnet profile creation service, or by yourself if the necessary measurement equipment is available.

First create a new profile entry with appropriate settings (e.g. Paper class, print quality) in PrintFab's profile administration (as explained in section ["8.1 Index card "Printer Profiles"](#)).

After that print a "color chart" – a page that contains a large number of color patches that will be measured with a spectrophotometer later:

### **a) Printing color charts for the ZEDOnet profile creation service**

The necessary color chart can be printed with the ["Print color chart"](#) button in the "Profiles" dialog of the PrintFab control center.

### **b) Printing color charts for creating ICC profiles with own measurement equipment**

If you have the necessary measurement equipment available, you can create your own profiles and use them with PrintFab. A detailed description can be found in the next chapter.

## 8.4 Creating ICC color profiles with a spectrophotometer

If you have access to a spectrophotometer (e.g. EyeOne, ColorMunki, Spyder) and color profiling software, you can create your own color profiles for PrintFab. The following steps are necessary:

### Creating a new profile entry in PrintFab

Open the PrintFab Control Center, dialog "Profiles", tab "Printer profiles". Add a new profile entry with the button "New Profile". Among others, the following settings must be made (the complete description can be found in chapter ["8.1 Index card "Printer Profiles"](#)):

**Cartridge** - e.g. matte black or photo black

**Type of paper** - e.g. coated inkjet paper or (semi) glossy photo paper

**Print quality** - select a print resolution and quality

**Ink saturation limit** - limit ink amount, if necessary

On the next dialog page a "profile name" can be specified.

The new profile will be visible as an additional "Paper" in the printer driver settings dialog.

### Printing the profile color chart

The next step is to print a profile color chart that is supplied with your profiling software. Depending on the software, RGB profiles and maybe also CMYK profiles can be created. Usually there are TIFF profile color chart files or an option to export a chart file or to print the color chart directly. The section "Differences between RGB and CMYK profiles" further below explains which profile type is suitable for which purpose.

To print the profile color chart, you need a photo editing or printing program that can print without color management. For CMYK charts, the software must also support CMYK printing, e.g. Photoshop oder CorelPhotoPaint (the "Adobe Color Print Utility" can be used only for RGB charts).

### Settings in the Photoshop print dialog

Select "Photoshop Manages Colors". As "Printer Profile", choose "Working RGB" or "Working CMYK" - this means that Photoshop doesn't perform printer color management. Photoshop may show a color management warning which can be ignored.

### PrintFab driver settings dialog

**Tab "Main":**

**Paper** - select the profile entry that you just added (at the end of the list)

### **Tab “Color”:**

**Color Mode** - select “Color (RGB)” or “CMYK Proof” depending on the profile chart type

**Intent** - “No correction”

### **Creating the ICC profile**

The printed chart will now be measured with the spectrophotometer and an ICC profile will be created - follow the instructions of your color profile creation software.

### **Using the profile**

The resulting ICC profile can be used either in PrintFab (recommended) or in an application software that supports ICC profiles. It is important that color management is done either in the PrintFab driver or in the application software - otherwise the profile will be applied twice and colors will be wrong.

We will explain the two color management methods for the software Photoshop.

### **Color management in PrintFab (recommended)**

Import the ICC profile in the "Profiles" dialog of PrintFab Control Center, (tab "Printer profiles" -> button "Import color data").

In the Photoshop print dialog, select "Photoshop Manages Colors". As "Printer Profile", choose the document profile - this means that Photoshop doesn't perform printer color management. Photoshop may show a color management warning which can be ignored.

In the PrintFab driver settings, make the following settings:

#### **Tab “Main”:**

**Paper** - select the profile entry that you added

#### **Tab “Color”:**

**Color Mode** - select “Color (RGB)” or “CMYK Proof” depending on the *document* type

**Intent** - e.g. “Perception” or “Perception Photo” for RGB photo printing, “Colorimetric relative” for CMYK proof printing

**Color Space** - select the color space of the *document* to be printed, e.g. “sRGB” or “ISO Coated”

Please note that some features like printer color simulation in PrintFab Preview and “ink save mode” can be used only when color management is done by PrintFab.

### **Color management in Photoshop**

Add the ICC profile to the Windows color profiles folder (usually done by the profiling software).

In the Photoshop print dialog, select “PhotoShop manages colors” and “Printer profile” = *Name of the ICC profile you created*

In the PrintFab driver settings, use the same settings as when printing the ICC profile chart:

**Tab “Main”:**

**Paper** - select the profile entry that you added

**Tab “Color”:**

**Color Mode** - “Color (RGB)” or “CMYK Proof” depending on the profile chart type

**Intent** - “No correction”

**Differences between RGB and CMYK profiles**

Depending on the profile creation software, you can create RGB and/or CMYK profiles. Both types of profiles can be used for printing correct colors with RGB **and** CMYK documents. PrintFab calculates the necessary conversion automatically.

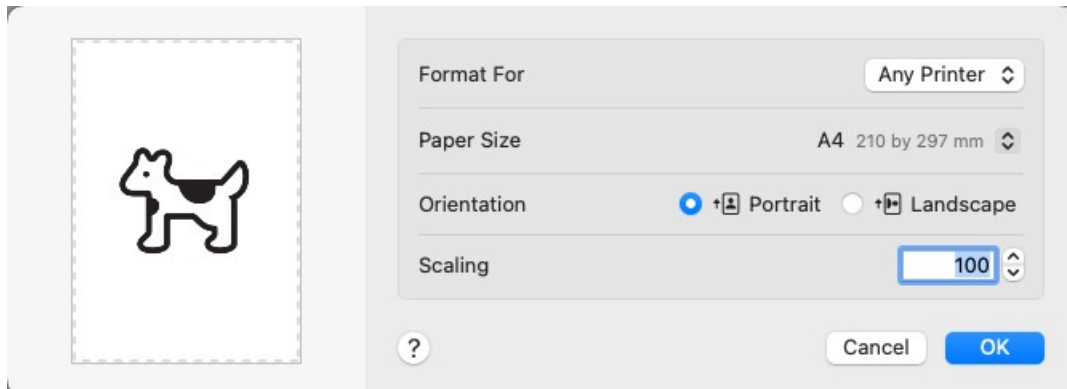
Each profile type has its pros and cons:

- **RGB profiles** need less color patches than CMYK profiles for achieving the same color accuracy. If your profile creation software only offers CMYK color charts with less than 500 patches, prefer printing an RGB chart.
- Only with **CMYK profiles** the generation of black can be determined by your profile creation software. With RGB profiles, PrintFab always uses its standard way of generating black.

## 9. Print dialog settings of PrintFab

In almost all applications a printout is started with the menu option “Print...” (located in the “File” menu). In some applications the page size is set separately in the „Page Setup“ dialog.

### Menu option “Page Setup...”

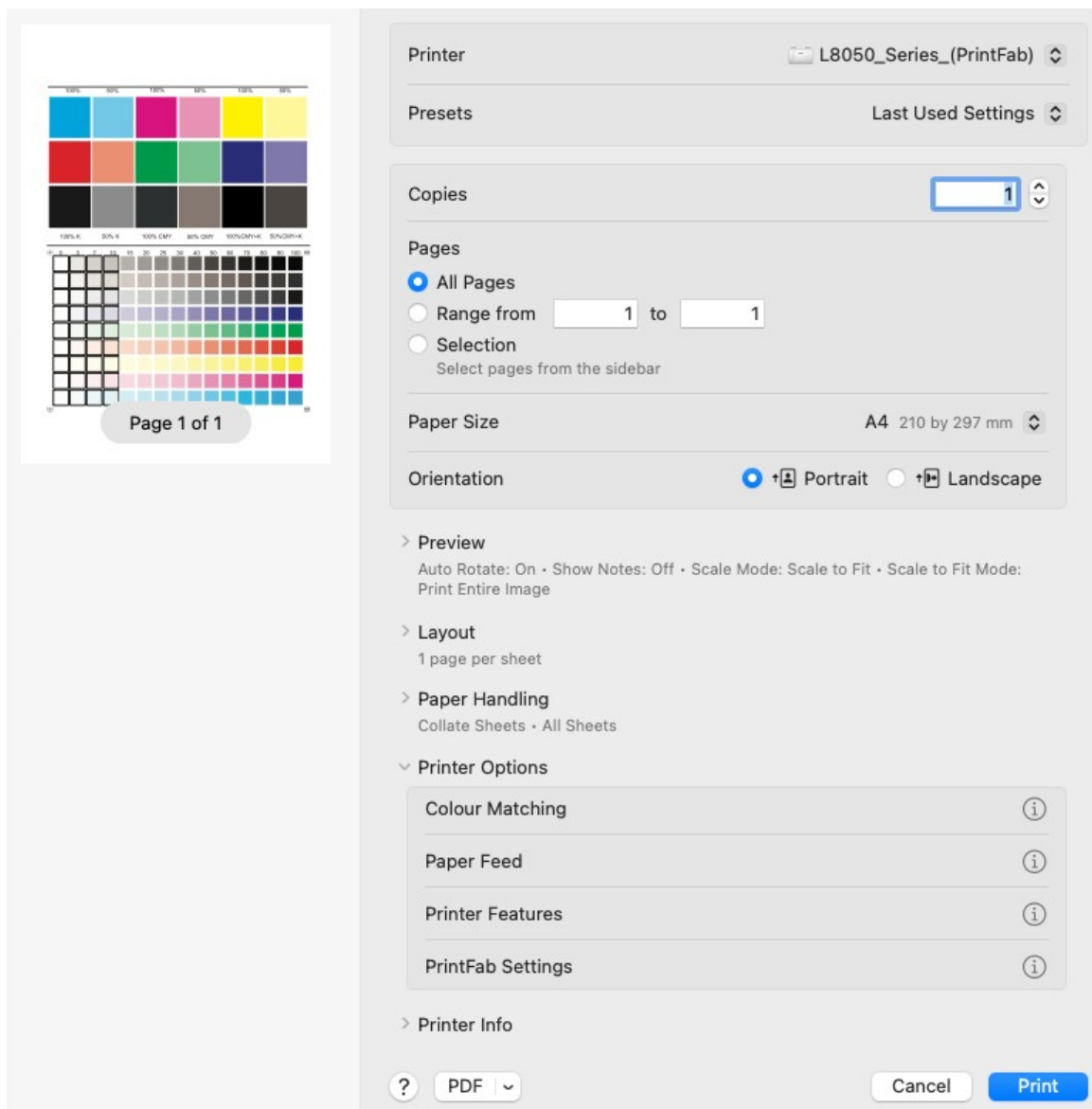


With the „Page Setup...” dialog you can set the page size (“Format for:”) either for all printers or directly for a certain printer. If you choose “Any printer” you can print a document on different printers without changing the page size.

You will be offered all paper formats your printer can handle only if you select this printer in the “Format for:” field. Only if a printer is specified your application will show the correct minimum margins.

If the required page size is not available, you can define your own size using PrintFab Toolbox – see chapter ["7. Custom page size editor"](#) on page 21.

## The print dialog



After selecting “Print...” in an application program a print dialog appears. Here you can select the printer and configure many settings such as which pages shall be printed, etc. You can also load and save printer settings.

### Creating Printer Presets

Using “Presets” you can save your printer settings so you don’t always have to adjust your settings before printing. With “Save as...” you can save the current settings with a name of your choice. All saved settings will be listed in the “Presets” field and can be activated by selecting them.

## Settings of the print dialog

The print settings are grouped into categories, e.g. “Layout” for printing several pages onto one sheet of paper, “Paper Feed” for choosing the paper source and “PrintFab Settings” for settings specific to PrintFab.

### “Color Matching” Settings

Select “Color Matching” = “In Printer” to get proper color reproduction.

### Two-Sided printing - “Layout” Settings

If your printer supports automatic two-sided printing, you can activate two-sided printing in the “Layout” settings.

### Roll Paper / Cutter - “Paper Feed” Settings

For printers that accept roll paper, you can activate the roll paper path by selecting “All pages from” = “Roll paper” in the “Paper Feed” settings. Also the paper cutter (if present in the printer) can be activated here.

### PrintFab Settings

All settings specific to PrintFab can be found in the “PrintFab Settings” and the “Printer Features” categories.

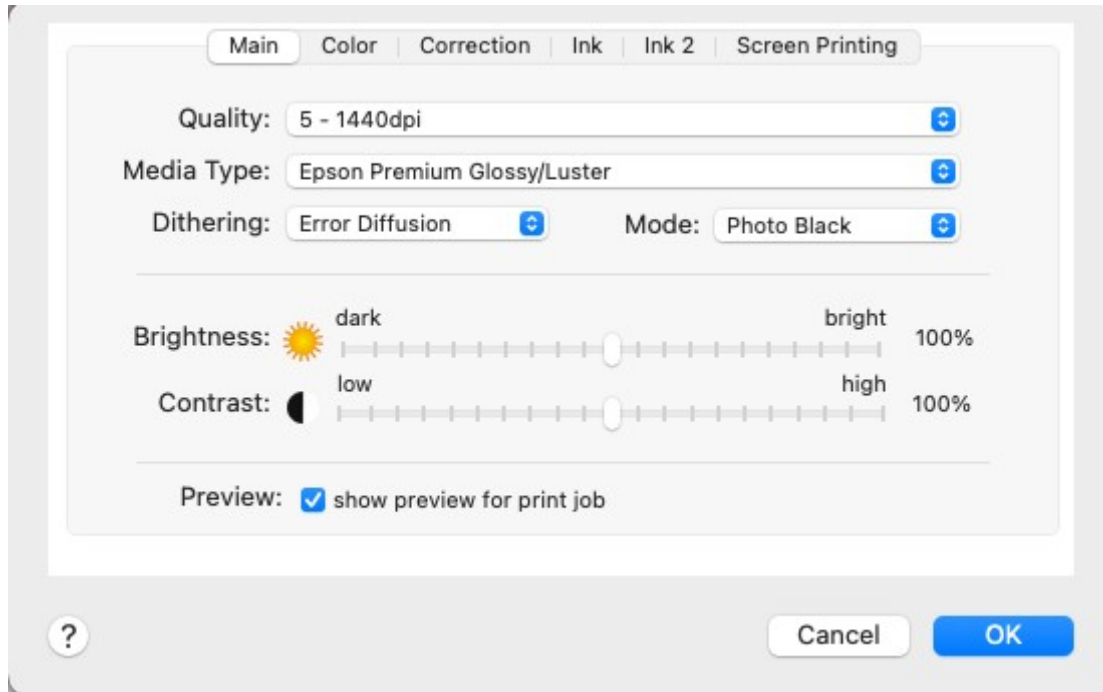


The PrintFab settings are split into submenus that are organized like index cards and are described in the following chapters.

The settings are split into submenus on several index cards:

## 9.2 Index card „Main“

The most frequently used settings can be found here.



### Quality

Almost every printer offers several print modes. Generally, the higher the print quality the longer the printout will take. So you will probably choose a lower print quality for draft and test printouts and one of the highest qualities for the final printout.

### Media Type

Specify the medium you want to print on (i.e. the type of paper or a different media type like transparency, printable CD, etc.). Internally, PrintFab chooses the appropriate color profile for this medium and adapts other printing parameters like printing speed, amount of ink, interleaving, etc.

To achieve a good color quality it is very important that you set the correct media type. As an alternative you can select a similar medium, e.g. “Inkjet Paper” for any matte coated inkjet paper or “Glossy” for any glossy or semi-glossy coated photo paper. But keep in mind that you can only obtain exact colors if the paper is supported directly.

### Adding new papers

You can further improve the color quality – especially if your preferred paper is not supported directly – with an individual PrintFab color profile for your printer and your preferred paper by the ZEDOnet profile measuring service. Read more about individual color profiles in the description of the PrintFab printer profiles section ["8. "Profiles" - color profile administration"](#).

## Mode

This setting is only available for certain printers to control printer specific options, e.g.

- black or color print head inserted in the printer
- 4-color printhead or 6-color photo printhead used
- matte black or photo black ink cartridge used
- gloss optimizer on or off
- normal or economy print mode

## Brightness

Use this slider to render the printout lighter or darker. The higher the value the brighter your printouts will get and vice versa.

Only intermediate colors will be changed, black and white will remain unchanged - i.e. pure black will be printed as pure black, white as pure white. If you also want to brighten the black parts of a printout you can reduce the contrast with the control described next.

## Contrast

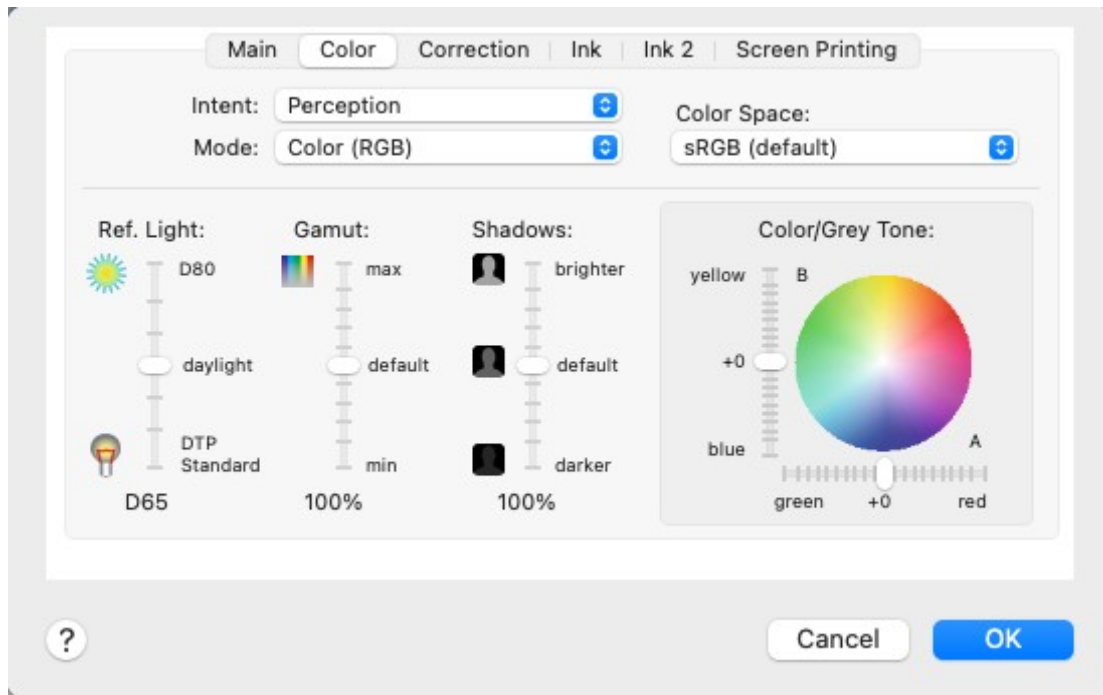
Use this slider to increase or decrease the contrast of your printout. With a decreased contrast white will stay unchanged, i.e. only dark colors will become brighter. With an increased contrast bright colors will become brighter and dark colors will become darker.

## Print Preview / Layout Editor

To activate the preview function, check the box "Preview". Before printing, PrintFab will display a preview window where you can confirm or abort the print job. With the integrated layout editor "PrintFab Composer" you can even modify the print job before it is sent to the printer. You can scale, crop and move contents, delete or add pages.

A description of the layout editor can be found in chapter ["11. Print Preview with Layout Editor / Composer"](#).

## 9.3 Index card „Color“



### Mode (Color Mode)

Specifies whether the printout is done in grayscale or in color. You can choose between the following options:

- **Grayscale Fast** – default setting for B/W printers  
This mode produces fast printouts without colors at a medium dithering quality. Use this mode with fast printers when printing larger documents.
- **Grayscale**  
For printing grayscale documents with photos use this setting as the dithering quality is better than in the “grayscale fast” mode. Only black ink is used. The calculation of print jobs takes longer than in the “fast” grayscale mode.
- **Gray Photo**  
Recommended setting for high-quality black & white photos. Brighter shades of gray are printed by mixing primary colors, thus looking less grainy. On some printers also grey photo ink is used. This is the only „Gray“ mode where “Color / Grey Tone” settings take effect (e.g. to achieve a sepia color balance).

- **Color - RGB** – default setting for color printers

This is the correct setting for printing most documents or photos in color. PrintFab assumes that the colors of your document belong to an RGB color space (which you can specify with the “Color Space” control).

### Special color modes of „PrintFab Pro“

PrintFab Pro offers two additional color modes for printing “proofs” in prepress production. These color modes are designed especially for printing PDF- and Postscript documents based on the CMYK color model.

Select **CMYK Proof** when printing documents that are already separated into the four standard colors “CMYK” for a print house. It is important that you also select the correct CMYK profile with the setting “Color Space”.

- **CMYK Proof** – only PrintFab Pro

In “CMYK Proof” mode the black (“K”) color channel of the document is printed using black ink. Thus colors can be reproduced more exactly.

- **CMYK Proof (Mix Black)** – only PrintFab Pro

In “CMYK Proof (Mix Black)” mode lighter shades of gray are printed by mixing primary colors. Thus shades of gray are looking less grainy.

### Notes:

- Only few application programs allow printing in CMYK mode, e.g. CorelDraw, Adobe Acrobat, Illustrator, Indesign and Photoshop. Chapter ["15. Printing from Applications"](#) provides more information about printing from these programs.
- Automatic switching between RGB and CMYK mode is currently not possible. If a strong purple tint is visible in the blue tones (e.g. sky) when printing documents or the colors appear dull overall, this indicates that RGB files are being printed in “CMYKProof” mode.
- We recommend exporting CMYK documents in PDF or TIFF format and load them into PrintFab composer for printing - see ["10. PrintFab Composer"](#). PrintFab composer automatically recognizes CMYK documents and prevents incorrect operation for printing.

### Intent (Rendering intent)

As the color spaces of your computer display and your printer are different (printers normally cannot reproduce as luminous colors as displays can) an exact reproduction of all colors is not possible. Therefore you need to find a compromise and with the setting “Intent” you can specify your priorities.

The following rendering intents are available:

- **Perception** – Standard setting

The color space of the document is reduced to fit into the printer's color space. All colors are shifted homogeneously in a way that the overall perception of the image colors will not be changed. As it is mostly the very intense colors that cannot be printed, color saturation and contrast will have to be reduced slightly. Thus the color balance of the printout will be correct.

- **Perception Photo** – optimized for photographs

The color reproduction is optimized for digital photos. Contrast and color saturation are reduced as little as possible to achieve vivid and brilliant colors. As a consequence some details may be lost in very dark or very saturated parts of the image.

- **Perception Inksave** - optimized for low ink consumption

Color reproduction is also optimized for digital photos, but some additional steps taken to reduce ink consumption. Ink consumption is decreased only to a certain extent to keep the image quality as high as possible. Additionally all colors are reproduced a bit "cooler" to save yellow ink and very intense colors are printed a bit less saturated.

With this setting you save on average about 20%-35% of ink without a noticeable loss in print quality. (even in comparison with the original printer driver of the printer manufacturer).

- **Saturation**

The color reproduction is optimized for diagrams and charts but not suitable for digital images. The printer driver tries to achieve very luminous colors.

- **Colorimetric Absolute** (PrintFab Pro only)

This setting is designed especially for printing CMYK documents in prepress production. All colors that can be printed will be reproduced exactly. However colors that cannot be printed must be reduced in saturation. Depending on the paper used, details could be lost - especially in darker or very luminous parts of the image.

When printing standard RGB documents with this intent, only a small part of the colors can be reproduced exactly (RGB color spaces are bigger than CMYK spaces and especially many dark colors cannot be reproduced exactly). Thus this intent is not useful for printing RGB documents; RGB pictures appear too dark in this mode.

- **Colorimetric Relative** (PrintFab Pro only)  
Same as above but additionally the white point of the document is adapted to the white point of the chosen paper. This intent should be used when printing with the „CMYK-Proof“ mode (see below).
- **Colorimetric Relative Blackpoint Compensation** (PrintFab Pro only)  
Same as "Colorimetric Relative" but additionally the black point of the document is adapted to the deepest black the printer can print of the chosen paper. This intent can be used when printing with the „CMYK-Proof“ mode on paper that cannot reproduce deep blacks.
- **No Correction** (for printing color charts)  
Color management is switched off, printed colors will not match document colors. This setting should only be chosen to print a profile chart when creating an ICC color profile or if such an ICC profile has been activated in the application program, see chapter ["8.4. Creating ICC color profiles with a spectrophotometer"](#)

#### Note

With some printer drivers not all rendering intents are available as they are not yet provided with new PrintFab color profiles. If there are no PrintFab profiles available for your printer you can generate an individual color profile - see chapter ["8. Profiles" - color profile administration"](#).

#### Color Space (color profile of document)

This control specifies how the colors of a document will be interpreted. This is necessary because the color models "RGB" and "CMYK" do not describe colors clearly, but depend on the respective screen (RGB) or the printing inks and paper used (CMYK).

#### RGB-Profiles

- **sRGB** (default setting for mode "Color")  
This is the most common RGB color space for digital photos on PCs and for digital cameras (Gamma value approx. 2.2)
- **Apple RGB**  
Standard for display on previous Apple computers (gamma = 1.8)  
The profiles "sRGB" and "AppleRGB" differ mainly in the brightness characteristic, the "gamma" value.  
If prints appear too dark in the default setting (sRGB), please select "Apple RGB".

- **Adobe RGB**

This color space has a larger gamut and allows for more colorful hues than sRGB. AdobeRGB is sometimes used in professional cameras. Only select this setting if the application program supports the selection of a printer profile and if “AdobeRGB” was selected in the print dialog - otherwise the printouts will be too colorful.

Additional RGB color spaces can be added with the color profile administration menu by loading the appropriate ICC color profile (see chapter "8.2 Index card "Color Spaces"").

### **CMYK-profiles**

(only PrintFab Pro – available when printing documents in CMYK color mode)

The first three profiles are „generic“ profiles, which approximately reproduce the colors of printing presses of the corresponding region.

Additional ICC-profiles can be added with the color profile administration (e.g. a color profile provided by a printing house).

- **EURO** (default setting in color mode „CMYK Proof“)  
color space compatible to the European standard for offset printing
- **USA**  
color space compatible to the American standard for offset printing
- **JAPAN**  
color space compatible to the Japanese standard for offset printing
- **ISO Coated v2 (ECI)**  
European standard profile for offset printing - included with the kind permission of ECI, the European Color Initiative. The most current version and additional profiles are available on the web site [www.eci.org](http://www.eci.org).  
This profile is a common standard in offset printing.

## Reference Light

Choose for which illumination the colors of your printouts shall be optimized.

### Technical background:

Colors look different when illuminated with different lighting, an effect that is also known as color metamerism. The red colors of a photo look more intense when viewed in artificial lighting (e.g. a desk lamp) than when viewed in daylight. That's why a photo may look correct in artificial light but pale when viewed in daylight - or vice versa, a picture that looks good in daylight may look reddish when viewed with a desk lamp. The intensity of this effect depends very much on the ink and is therefore not relevant for some printers.

This is also important for prepress simulation (proofing). Printouts with different printer models (and hence with different inks) can be nearly identical only at a certain type of illumination.

The illumination is specified by the color temperature. The settings range between D50 (good artificial light) and D80 (bluish daylight). The average daylight corresponds to D65.

Light with 5000K color temperature (D50) is the reference illumination for pre-press.

When printing digital photos better results are normally achieved with reference lighting set to D65 to D80 (warmer skin colors, prevention of blue color tones turning purple).

With ICC color profiles only measurement data for D50 light are available. If a different illumination is chosen an approximation will be used (chromatic adaptation formula).

### Gamut (Color Saturation)

Change the color intensity with this slider:

- **Higher intensity** => more vivid colors
- **Lower intensity** => less vivid colors

This setting is not effective with the rendering intents "Colorimetric Absolute" and "Colorimetric Relative" as these intents exclude any color space modification.

### Shadows (reproduction of dark colors)

Here you can adjust the reproduction of shadow details in photos. Distinction of shadow details in printed documents is often only possible with good lighting. Increasing "Shadows" will cause dark colors to be printed brighter, thus increasing contrast in dark areas. Reducing "Shadows" will do the opposite. Brighter colors are not affected.

## Color / Grey Tone

Use this control to change the color or gray balance. This setting relates to the CIELab color system which describes a color by three components:

- **L** = Brightness: 0 = black ... 100 = white
- **A** = color component 1: negative = green, positive = red
- **B** = color component 2: negative = blue, positive = yellow

With the slider “**A**” the color balance can be turned more greenish (negative values) or more reddish (positive values).

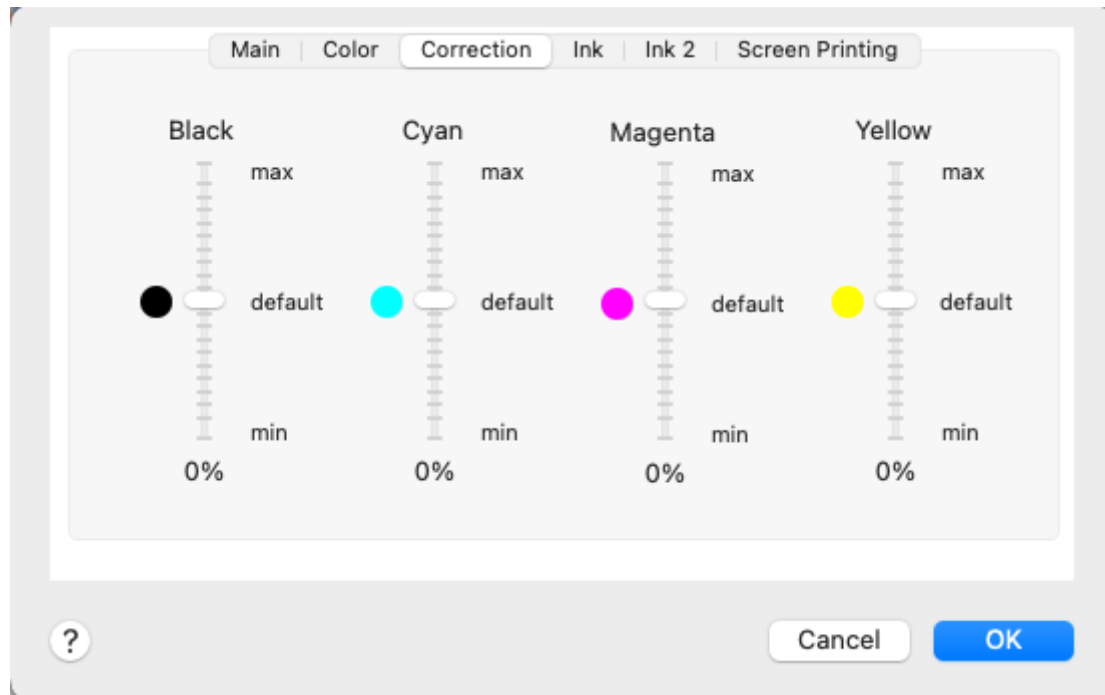
The slider “**B**” turns the color tuning more bluish (negative values) or yellowish (positive values).

The “Color/Grey Tone” setting is disabled when printing with the rendering intents “Colorimetric Absolut” or “Colorimetric Relative”.

### Note

Tuning the color balance slightly bluish (e.g. B = -5) does not only comply with our viewing habits (e.g. most types of paper have bluish optical brighteners) but as a side effect also reduces ink consumption (yellow is the color consumed most when printing photos). This may be a reason why many manufacturer's printer drivers print slightly bluish.

## 9.4 Index card „Correction“

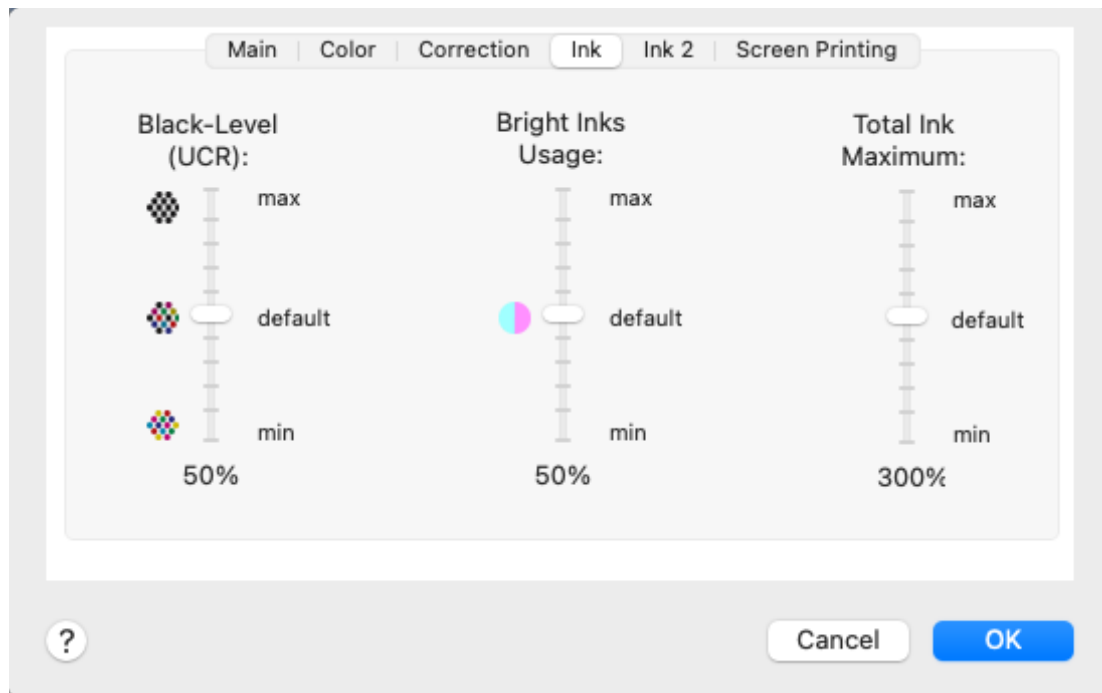


### Individual color correction

If necessary, use these controls to correct color reproduction by adjusting the intensities of black, cyan, magenta and yellow ink. This may be useful if you use different ink and / or paper. Of course, color reproduction can be corrected more accurately by creating an individual color profile.

- **Black**  
Adjusts the amount of black ink. The higher the value, the more black ink is applied.
- **Cyan**  
Adjusts the amount of cyan ink (light cyan ink is adjusted in the same way, if present).
- **Magenta**  
Adjusts the amount of magenta ink (light magenta ink is adjusted in the same way, if present).
- **Yellow**  
Adjusts the amount of yellow ink.

## 9.5 Index card „Ink“



The controls of this menu page enable you to optimize the print quality or to reduce the ink consumption – whereas high quality and low ink consumption are not necessarily mutually exclusive. With PrintFab you can save ink without a noticeable loss in print quality.

### **Black Level / UCR (under color removal)**

The generation of grayscales with colored or black ink is influenced with this slider. The advantage of using more black ink is a lower ink consumption whereas mixing grayscales with more color leads to smoother and less grainy colors. Bright tones of gray are ideally generated with colored ink, whereas with darker gray tones, black ink is used increasingly instead of using colors. The “black level” control determines the usage of black ink when mixing colors.

In the default setting black ink is only used in darker gray tones to avoid visible black dots.

Shifting the slider upwards leads to black ink being used for brighter gray tones and further replaces more color by black ink in the darker gray tones. Each drop of black ink drop substitutes for three drops of colored ink – in this way a considerable amount of ink can be saved. As a drawback, your printout may be slightly rougher.

In contrast, shifting the slider downwards leads to even darker gray tones being printed using colors without using black ink. As a result you get finer gradations but the ink consumption will be higher.

**Note:**

- This control is only available if pure black ink can be used. Some printers only use pure black when printing on plain paper.
- This function is not supported when using ICC printer profiles.
- PrintFab Pro: In “CMYK Proof” mode the mixing of black is performed according to the CMYK data of the source document as much as possible. When reproducing color tones that the printer cannot produce as prescribed there may be modifications of this precept – e.g. additional color may be added to black tones in order to obtain a deeper black.
- The setting “Black Level (UCR)” is not effective for the color mode “CMYK Proof” mode. However it affects the “CMYK Proof (mixblack)” mode.

**Bright Cyan / Bright Magenta / Photo Inks**

(These controls are not available with ICC color profiles)

The use of the additional colors “bright cyan” and “bright magenta” of photo printers can be controlled with these sliders. You can reduce the use of the bright inks (values < 50) by replacing them with the corresponding dark inks. This results in a decreased total ink consumption but produces slightly grainier printouts. Conversely you can use more bright inks with values greater than 50.

When using printers with combined ink cartridges (several colors within the same cartridge) the consumption of all colors should be balanced – i.e. if significantly more bright cyan has already been consumed than dark cyan, you should shift the slider downwards to save bright ink (respectively upwards to save dark ink).

Depending on the internal color profile, there are either two sliders for controlling the usage of “bright cyan” and “bright magenta” separately, or a single “Photo Inks” slider that changes the usage of both inks concurrently.

**Total Ink Maximum**

With this control you can limit the maximum amount of ink applied per printer dot. Its purpose is mainly to prevent an oversaturation of the paper and “bleeding” of the colors.

For example “300%” means that a maximum of 100% of the yellow, magenta and cyan inks may be applied at the same time. With “400%” an additional 100% of black ink may be applied.

Higher values cause a richer black (with higher ink consumption), lower values result in a lower ink consumption (with a lower intensity of black).

If excessive ink is applied resulting in smearing (“bleeding”), you can reduce the amount of applied ink by shifting this slider towards lower values. (You may also use the control “Color Saturation” of the “Main” index card).

## 9.6 Index card “Ink2”



### Intensity

Decreases the amount of applied ink. Hence the complete printout will become paler (move slider to „low“).

A lower saturation is good for printing test prints and in cases where too much ink is applied. You can easily save ink with this slider, however this will result in visibly paler printouts – to save ink without that impact, preferably use the „ink control“ sliders.

**Important:** Colors may bleed if the intensity is set too high.

### Separate ink limit sliders for black, cyan, magenta and yellow inks

With these controls you can limit the maximum applied amount of every ink color separately. As only highly saturated colors are affected, most colors will remain unchanged. With its integrated color profile generator, PrintFab tries to adapt the affected colors as much as possible to keep the overall color balance unchanged.

The intensity of colors does not increase linearly with the amount of applied ink. Instead it increases similar to a saturation curve, i.e. in the upper region an application of 20% more ink results in only a 1% increase in color saturation. By cutting back in this region, you can save ink quite effectively without a noticeable loss in print quality. Hence ink is saved in the portions of the image with intense colors.

In case of a printer with a combined ink cartridge (several colors within the same cartridge) it is important to preemptively reduce the limit of the ink that tends to be used up first (in most cases the yellow ink) - this way the lifetime of the cartridge can usually be prolonged up to 30%.

Also you can reduce the amount of ink consumption with single ink printers by cutting back the ink peaks - and you can use this setting without having to consider the remaining ink levels.

If you have chosen „Perception Inksave“ as rendering intent some ink limits are already active. The “Separate Ink Limits” controls will then additionally reduce the ink limits (sliders downwards) or lessen the limitations (sliders upwards).

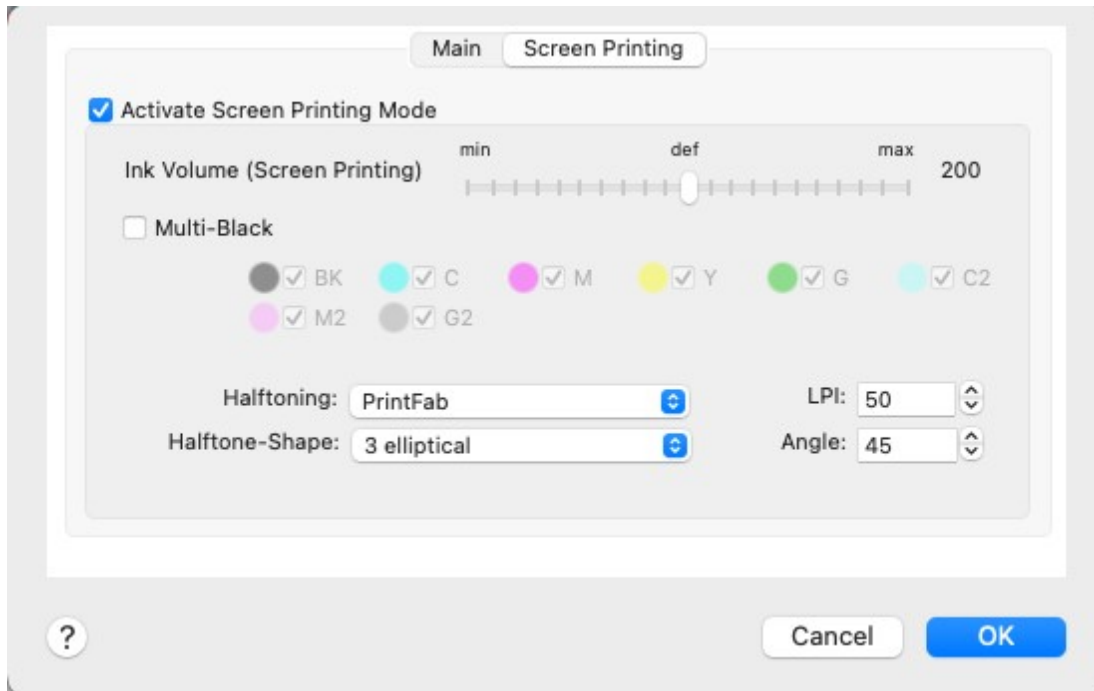
**Special case “Ink limit Black”:**

To achieve very dark shades of colors not only pure black ink is used but the color inks yellow, magenta and cyan are added.

The control “black ink limit” does not change the use of the black ink. Instead the amount of color inks which are added to dark shades is changed. As a result the consumption of color inks is reduced when lowering the black ink limit. If you increase the black ink limit, more colored ink will be added to dark gray and black areas - resulting in deeper and darker gray/black shades.

## 9.7 Index card “Screen Printing”

PrintFab Pro XL offers a special black & white print mode with adjustable halftone raster for silk screen printing or PCB printing. In this mode documents are printed on transparent film that is used to expose the screen printing stencil. For many printers, ink volume can be set much higher than in regular print mode to achieve good coverage for good exposure results.



Check the box “Active Screen Printing Mode” to enable the screen printing mode.

Additionally, you should make the following settings on the index card "Main": Select "Paper" = "Transparent film" or "Silk screen film" (depending on the printer model) and select a high print quality.

The following screen printing settings are available:

### Ink Saturation

Adjustment of ink amount. The default setting is 200% which is double the amount of ink used for regular printing on inkjet paper. With the PrintFab Composer app you can print an [Ink Saturation Test Page](#) with different ink saturation settings to determine the appropriate ink amount for good results.

## Multi Black

This is a special print mode for printers where one or several color cartridges have been replaced by black. Ink is printed from several black cartridges to achieve higher ink amounts and smoother printing. This is also helpful to disable one or more cartridges if ink is low or if certain print heads are clogged.

The checkboxes determine which ink cartridges are used to print black ink.

The ink amount that has been selected with the setting "Screen Ink Saturation" remains the same, i.e. the ink amount is distributed to the active ink cartridges and print heads.

## Halftoning

Determines if halftoning is active and if halftone parameters are specified in PrintFab or in the application

- **PrintFab**

Raster shape, frequency and angle are specified in PrintFab

- **App specified (Postscript)**

Halftone parameters from the application are used (for applications like CorelDraw or Illustrator that offer halftone settings in the print dialog)

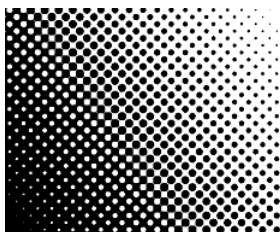
- **Off**

No halftoning. This option is for black&white designs. It can also be used to print images that have already been converted to a black&white halftone raster image in the application, e.g. in PhotoShop.

## Halftone Shape

Select halftone raster shape - there are seven settings available from round dots over elliptical dots to line raster.

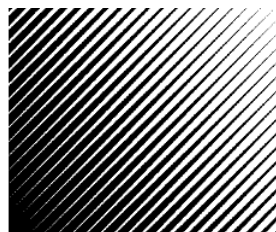
The setting "stochastic" selects stochastic screening which is "frequency modulated" in very bright and very dark areas, otherwise the dot spacing depends on the LPI setting. The "Angle" setting is ignored.



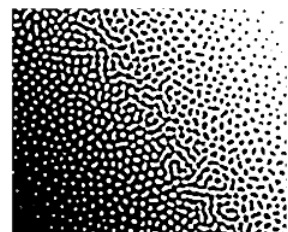
round



elliptical

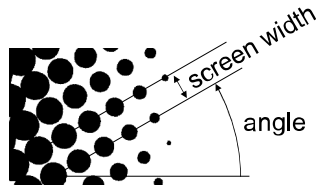


line



stochastic

## Halftone LPI and Angle



### LPI

Select halftone screen width in "lines per inch" (a higher number means smaller screen width and smaller dot size).

### Angle

Adjustment of halftone screen angle.

### Usage of special UV blocking inks

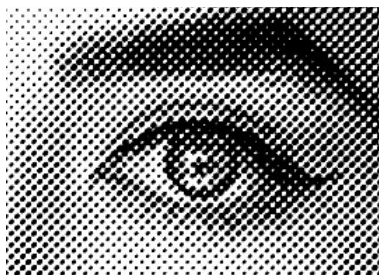
If black is not opaque enough for exposure even with a large amount of ink, a special "High Density Black" can be used. In rare cases, such ink can lead to blurred ("foggy") printing. In this case, it usually helps to select a larger "Drop Size" size in the section "Printer Features" -> "Special Settings Screen Printing".

### Restriction of other print options in screen printing mode

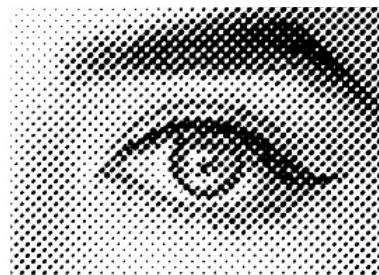
When screen printing mode is enabled, the index cards "Color", "Correction" and "Ink Ctrl" are hidden, as these settings are not relevant for screen printing.

On the **index card "Main"** the following settings are important for screen printing:

- **Paper** - the setting "Transparency" or "Silk Screen Film" (depending on the printer model) is recommended
- **Quality** - a high print quality is recommended
- **Brightness & Contrast** - with these settings the reproduction of the image brightness (by adjusting the raster dot size) can be controlled.
- The "**Brightness**" setting adjusts the gamma curve and thus affects mainly the medium brightness range.



Brightness 80%

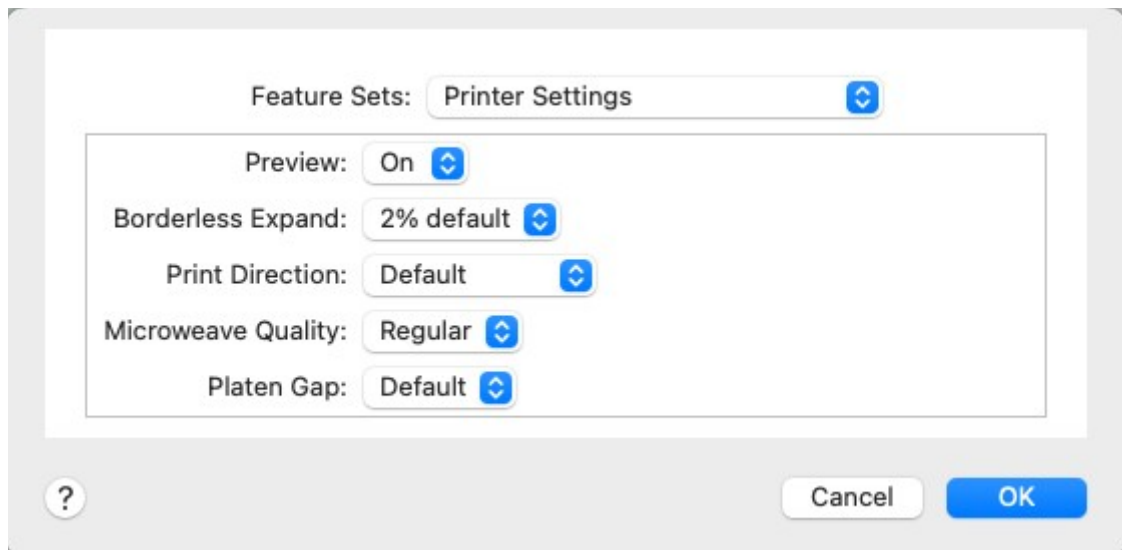


Brightness 140%

- The "**Contrast**" setting affects all brightness levels. It is advisable to reduce the contrast if the print result is too dark or if details in dark image areas are lost.

## 9.8 Additional Printer Features

Further printer specific features are arranged on this dialog, e.g. the enlargement factor for borderless printing, paper thickness, print direction, ink drying pause, etc.



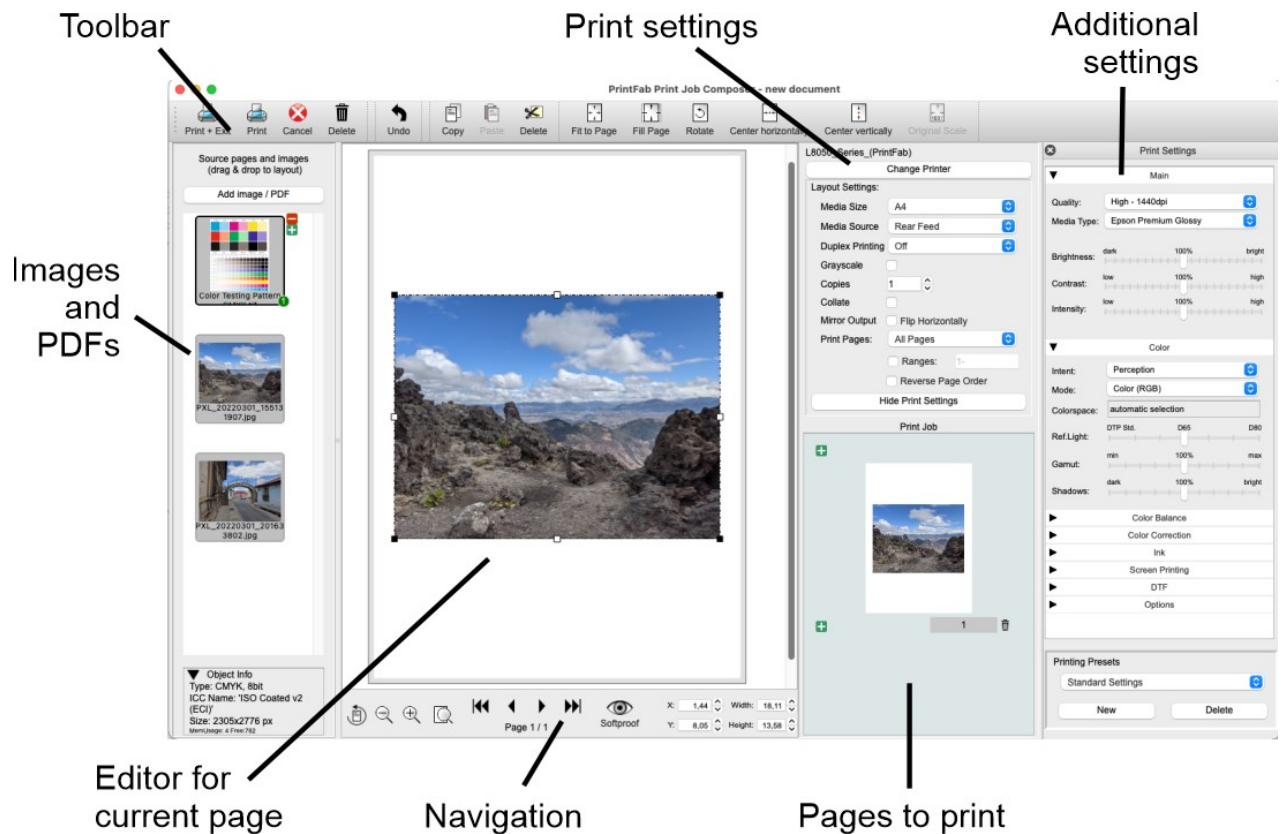
# 10. PrintFab Composer

The PrintFab Composer is started via the corresponding icon in the “Programs” directory. It is a powerful layout application that can load and print images and PDF files directly. For example, you can have photos automatically arranged on pages or place them individually, crop images and much more.

When printing from an application program, incorrect color management can easily occur, because it is necessary to configure color settings in the application and in the PrintFab driver. In PrintFab Composer all steps from loading images or documents to converting them into the printing inks are done in one place. This ensures that all colors of the documents and images are interpreted correctly and printed in the best possible way.

## 10.1 User interface overview

The PrintFab Composer window contains the following areas:



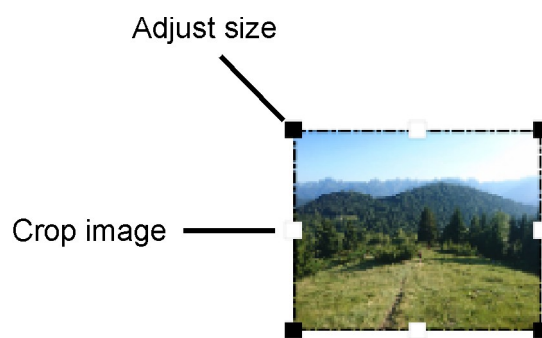
- toolbar at the top
- object area on the left with the loaded images and PDF pages
- editor for the current page in the middle
- the navigation panel below the editor
- the most important print settings to the right of the editor
- below that are the pages of the processed print job
- all other PrintFab print settings on the far right

Images can be loaded using the "Add images..." button or via drag & drop. They appear in the left column and can either be placed on the page using drag & drop or automatically arranged on printed pages using the layout wizard.

## 10.2 Manual page layout

You can use the mouse to drag & drop images from the area on the left into the editor and then scale or crop them. After an object is clicked in the editor, small black squares (handles) appear at the corners and in the middle of the sides of the frame which can be moved with the mouse.

When you move the corner handles, the print object is reduced or enlarged accordingly. The handles on the sides are used to crop the object - in this way you can select a section of it or cut off edges.



Alternatively, the position and size can also be entered numerically in the number field below the editor.

### Unit of measurement

The unit of measurement can be set to centimeters or inches in the Settings pull-down menu.

## 10.3 Automatic page layout

You can access the layout wizard and the menu items "Create new (normal / Layout 2/1 / Layout 4/1)" via the "Edit" pulldown menu.

With automatic arrangement, all images or PDF documents from the object area on the left are arranged on pages. Individual objects can be omitted or arranged multiple times: If you click on an object in the left column, the symbols "+" and "-" as well as a number appear. The number indicates how often an object will be placed. You can adjust the number with "+" and "-":

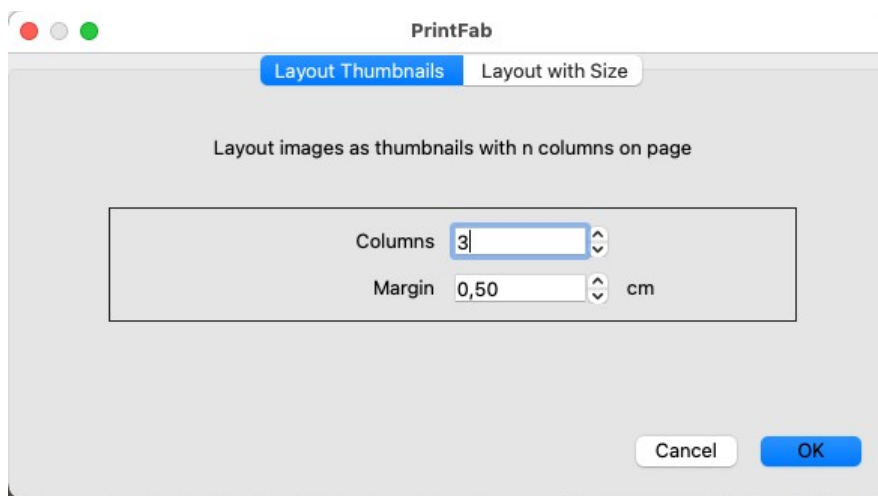


## Layout Wizard

The layout wizard has two modes: The thumbnail layout and the fixed size layout.

### Thumbnail layout

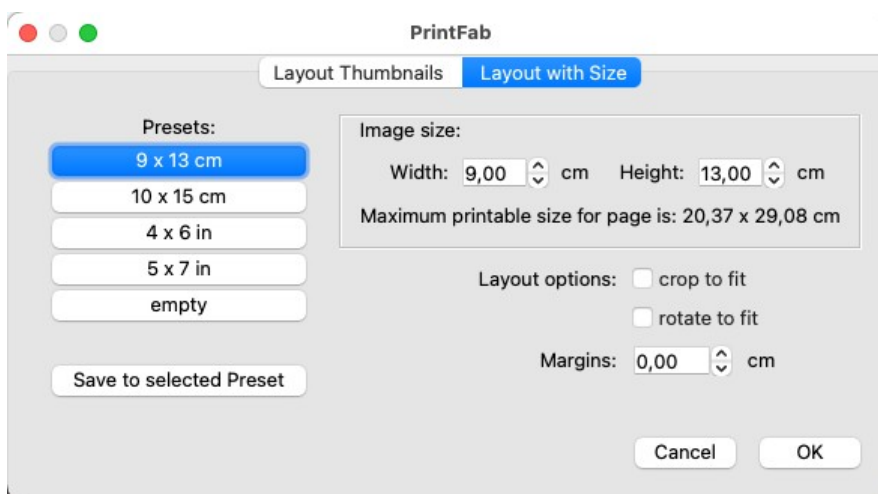
With the thumbnail layout, the images or PDF documents from the object area on the left are arranged in columns on print pages:



The number of columns and the column spacing is adjustable.

### Fixed size layout

With the "Fixed Size Layout" you specify the print size. Then the placement is done so that the objects are arranged on pages using as little space as possible.



Objects whose aspect ratio does not correspond to the entered image size are reduced

in size. If the "crop" option is selected, images will be cropped if necessary so that the specified image size is filled without a white border.

If the "rotate appropriately" option is selected, images will be rotated as necessary so that the printed page is filled as well as possible. Otherwise, the original orientation (portrait or landscape) will be retained.

A minimum distance between objects can be set in the "Margins" input field.

### **Save new preset**

First, select one of the five existing preset fields and then enter the desired values for size, options, and margins. By clicking on the "Save as selected preset" button, the values are saved and can be retrieved again by selecting the corresponding field. When saving, the name of the preset field can be changed.

### **Create new**

The menu options "Rebuild (Normal)", "Rebuild (Layout 2/1)", and "Rebuild (Layout 4/1)" are used to quickly arrange objects on print pages each containing one, two, or four images or pages of one PDF document per printed page.

## **10.4 Navigation and Toolbar**

### **Soft proof (printing ink simulation on the screen)**

In the navigation area below the editor field there is the "Softproof" switch ("eye" symbol), which can be used to switch on the printing ink simulation on the screen. Changes to the print settings (e.g. "paper", "color space") then also change the color representation on the screen.

### **Change the depth order of objects on the page**

If the objects overlap, you can use the buttons "back", "forward", "backward", "forward" to change which objects are higher up and partially obscure the objects below. You can also access these functions in the context menu that appears when you right-click on a print object.

Individual or all objects on the page in the editor can be removed with "delete".

### **Insert new print pages, delete existing pages**

You can add additional (initially blank) print pages using the corresponding "+" switch in the right column, in which all print pages of the edited print job are located. The new page will be inserted between the pages adjacent to the "+" button. Objects from the are on the left can be placed on the new page via drag&drop.

The "Delete page" button in the toolbar deletes the page currently displayed in the editor and thus removes it from the new print job.

**Print document**

Press the button "Print" button to send the document to the printer - just as it is shown in the page thumbnails in the column "Print Job" on the right. All changes that you have made in the print job will be applied. If you just wanted to review the document without changing it, the document will be printed as sent from your application. The button "Print + Exit" sends the document to the printer and closes the Composer window after printing.

**Discard print job**

By clicking on "Cancel" the complete print job (and all changes that you made) will be discarded and the Print Job Preview program is closed.

## 10.5 Print settings

In this area you will find the most important print settings:

The screenshot shows a dialog box titled "L8050\_Series\_(PrintFab)" with a "Change Printer" button at the top. Below this is a "Layout Settings:" section containing several options: "Media Size" set to "A4", "Media Source" set to "Rear Feed", "Duplex Printing" set to "Off", "Grayscale" (unchecked), "Copies" set to "1", "Collate" (unchecked), "Mirror Output" with "Flip Horizontally" (unchecked), and "Print Pages:" set to "All Pages". There are also checkboxes for "Ranges:" (with "1-" in a text field) and "Reverse Page Order". A "Show Print Settings" button is at the bottom.

- **Select printer**

With the "Select printer" button you can choose which PrintFab printer the document should be printed on.

The screenshot shows a dialog box titled "Change Printer:". It contains the instruction "Please select a print queue and paper size for your print job:". Below this are two dropdown menus: "Print queue:" set to "L8050\_Series\_(PrintFab)" and "Start with paper size:" set to "A4".

- **Paper size**

When you change the paper size, you will be asked whether you want to adjust the size of all arranged objects accordingly or if you want to redistribute all existing objects across the pages (1 object per page, e.g. if your objects represent pages of a PDF document).

For "Custom" paper size, the size of the page must be entered.

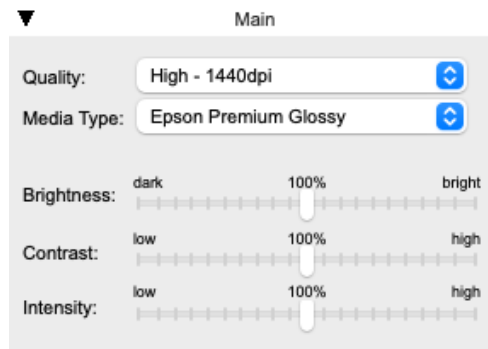
The screenshot shows a dialog box with the title "The page format was changed. Please select how the objects on the pages shall be rearranged." It contains three radio button options: "Do not rearrange objects" (selected), "Resize and reposition objects", and "Rebuild document from source pages". To the right, there is a section for "New Custom Page Size:" with input fields for "Width: 5,00" (max. 8,51) and "Height: 7,00" (max. 129,00). Below this are "Minimum Borders:" with values for "Left: 0,13", "Right: 0,13", "Top: 0,13", and "Bottom: 0,13". At the bottom, there is a "Unit:" section with radio buttons for "cm" and "inch" (selected).

- **Paper feed**
- **Output tray**
- **Duplex printing**  
 If your printer supports automatic duplex printing, you can choose whether to turn the pages on the long or short edge of the page.  
  
 If the printer does not offer automatic duplex printing, you can manually select to print front (odd pages) or back (even pages). Between printing the front and back pages, the stack of paper must be removed, turned over and reinserted into the paper feeder.
- **Grayscale** (print only with black ink)
- **Copies** (1-9999)
- **Sort**  
 If the "Sort" option is selected, all pages of a print job will be printed before the next copy is created. If the "Sort" option is switched off, copies of the first page are printed first, then those of the second, etc. Depending on the printer, this is a little faster.
- **Mirroring**  
 Mirrored print e.g. for sublimation printing.
- **Print Pages**  
 You can select whether all pages or only odd or even pages are printed (e.g. for manual printing of the back pages).  
  
 In the field "Ranges" you can specify a page "2" or a page range like "2-3". You can also enter multiple ranges separated by commas, for example "1, 2-3, 7-".
- **Reverse page order**  
 The pages are printed backwards, starting with the last page.
- **Show print settings**  
 Displays the list of all print settings on the right (if it was hidden) or hides it again.

## 10.6 Advanced print settings

The other print settings can be opened with the "Show print settings" button; they are displayed on the far right in the PrintFab Composers window; individual areas can be expanded and collapsed again using the triangle symbol. The individual settings correspond to the print dialog options of the PrintFab driver and are only briefly described here; the options are explained in more detail in chapter "9. PrintFab print settings in the print dialog".

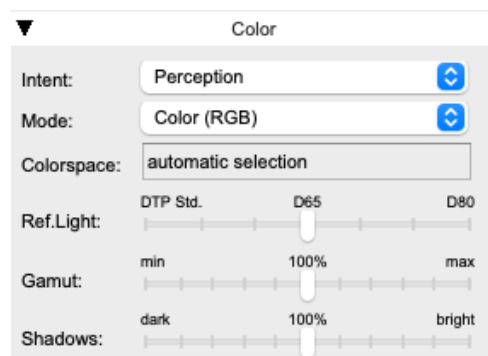
### Main



- **Quality** - determines the print resolution and speed
- **Media Type** - paper type e.g. plain paper or photo paper
- **Brightness** - Correction of brightness. Only the middle brightness ranges are adjusted; white and black remain unchanged in the printout. To print the most intense colors brighter, use the "Saturation" setting.
- **Contrast** - Adjust the contrast
- **Saturation** Adjusts the ink saturation. Lower ink saturation helps, for example, to save ink or speed up the drying of the printout in duplex mode.

To adjust color saturation, i.e. to make colors more intense, use the "Color" -> "Gamut" setting.

### Color



- **Intent** - rendering intent for color management, the default setting is "Perceptual", "Photo optimal" prints slightly more contrasty and "Saturation" prints intense colors slightly darker, this is recommended for example for diagrams or company logos.
- **Mode** - Color mode such as "Grayscale" or "Color (RGB)". The "Grayscale Photo" setting prints high-quality black and white photos; depending on the printer, gray ink or a mixture of CMY is used for lighter details. The "CMYK Proof" mode is required for the color-accurate reproduction of CMYK documents (e.g. used in pre-press) and can only be selected with PrintFab Pro.
- **Colorspace** - Default color space for documents. PrintFab usually automatically detects the color space of photos or PDFs, so it makes sense to keep the default setting "sRGB".
- **Ref. Light** - indicates the light under which the prints are normally viewed, the default setting is "D65" daylight. This setting is explained in more detail in Chapter 9.
- **Gamut** - increase or decrease color
- **Shadows** - print dark areas in images slightly lighter or even darker

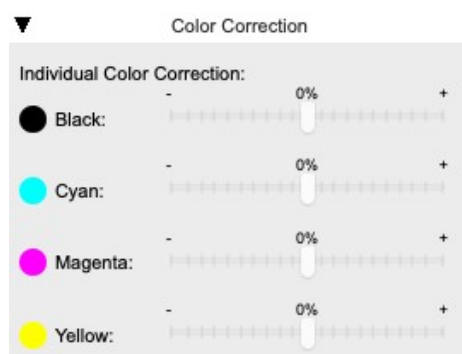
## Color Balance

Setting the color balance or tint of black and white photos in "Grayscale Photo" mode.



## Color Correction

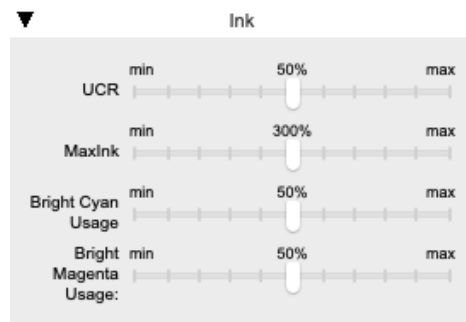
Color correction by adjusting ink amounts.



## Ink

The ink control options are described in more detail in chapter "9.6 Ink tab":

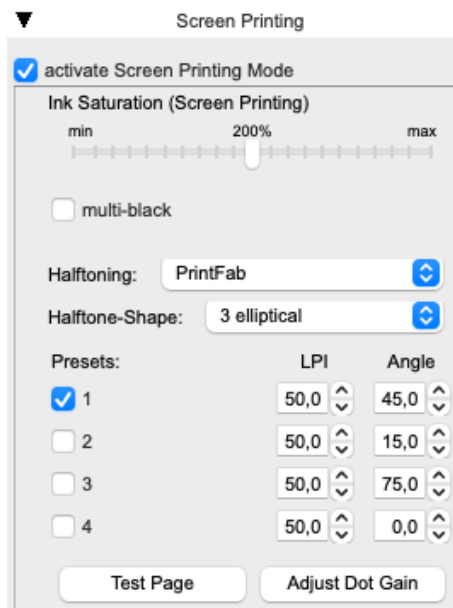
- **UCR** - Controls the addition of color inks (C+M+Y) when printing grayscale
- **Max Ink** - limits the maximum ink application
- **Light Ink Usage** - controls the use of photo inks



## Screen printing and film printing (PrintFab Pro XL only)

PrintFab Pro XL offers a special black & white print mode with adjustable halftone raster for printing films for silk screen printing or circuit board layouts. In this mode documents are printed on transparent film that is used to expose the screen printing stencil.

For many printers, ink volume can be set much higher than in regular print mode to achieve good coverage for good exposure results, you can find further information at <https://www.printfab.net/screenprinting.html>



**Activate Screen Printing Mode** - enable the screen printing mode

**Ink Saturation** - adjust the ink amount. With the button "Test Page" you can print a test page to determine the suitable ink amount.

**multi-black** - for printers where one or several color cartridges have been replaced by black. Ink is printed from several black cartridges to achieve higher ink amounts and smoother printing. The checkboxes determine which ink cartridges are used to print black ink.

**Halftoning** - determines if halftoning is active and if halftone parameters are specified in PrintFab or in the application

- **PrintFab** - raster shape, frequency and angle are specified in PrintFab
- **App specified (Postscript)** - halftone parameters from the application are used (for applications like CorelDraw or Illustrator that offer halftone settings in the print dialog)
- **Off** - no halftoning, solid black & white printing

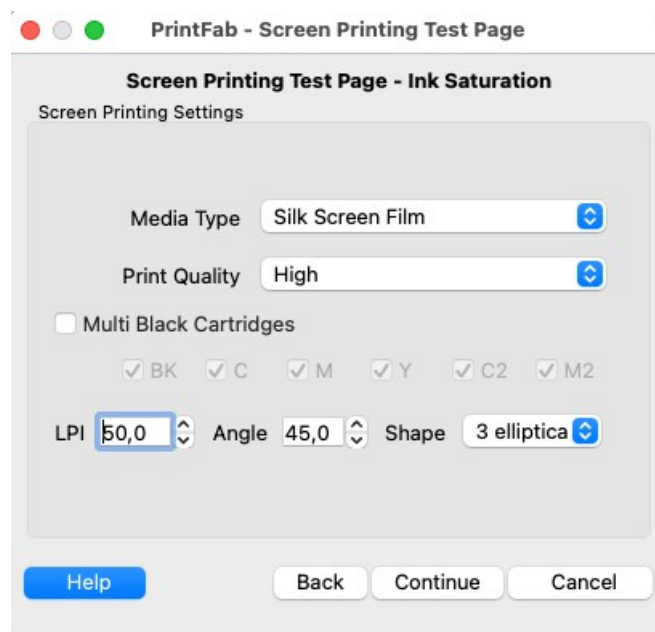
**Presets** - you can specify and choose between four presets of raster frequency and angle

**Note on color separations**

Color separations can be created in illustration software such as CorelDraw or Adobe Illustrator, see chapter "12.2 Printing color separations". PrintFab does not create color separations, color graphics are always interpreted as grayscale if screen printing mode is active.

## Ink Saturation Test Page

Use the "Test Page" button to open the dialog to determine the correct amount of ink.

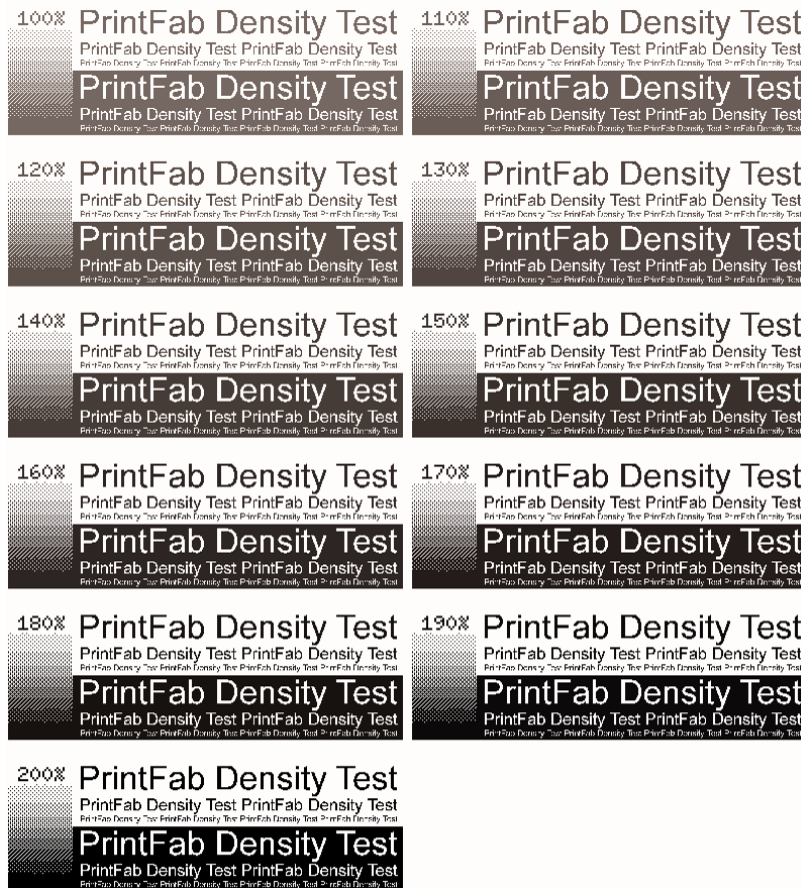


First select the media type (e.g. "transparent film" or "screen printing film" depending on the printer) and a good print quality.

If the printer has been converted to "Multi-Black" or "All-Black" ink cartridges, check the box next to "Multi Black Cartridges" and select all cartridges that should be used for multi-black printing.

Optionally you can change the halftone settings (LPI, angle, shape).

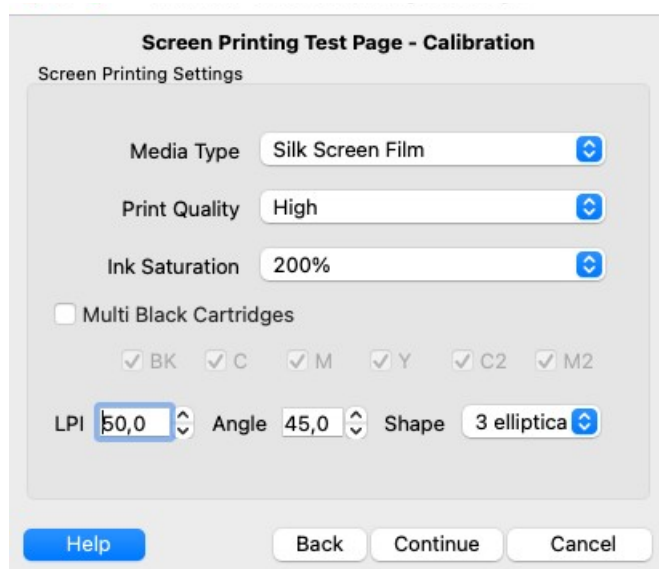
On the next page select the maximum amount of ink. It's best to start with 200%; if the amount of ink is too high, ink may not be dry when it reaches the printer's transport rollers.



Expose the film with the test page on the printing screen and determine the appropriate amount of ink. Black parts should wash out easily and details should be reproduced well.

## Adjust Dot Gain Test Page

Click the button "Adjust Dot Gain" to open the dialog to determine the correct "Brightness" setting to compensate the dot gain of the print process. The "Brightness" setting in the section "Main" of the print options controls the gamma curve and mainly affects medium brightness values. The test page contains several comparison prints between fine and coarse halftone for different gamma values. You can determine the best brightness / gamma value by visual comparison.



The screenshot shows the 'Screen Printing Test Page - Calibration' dialog box, specifically the 'Screen Printing Settings' section. The settings are as follows:

- Media Type: Silk Screen Film
- Print Quality: High
- Ink Saturation: 200%
- Multi Black Cartridges:  (unchecked)
- Color Cartridges:  BK,  C,  M,  Y,  C2,  M2
- LPI: 50,0
- Angle: 45,0
- Shape: 3 elliptica

At the bottom of the dialog, there are four buttons: 'Help', 'Back', 'Continue', and 'Cancel'.

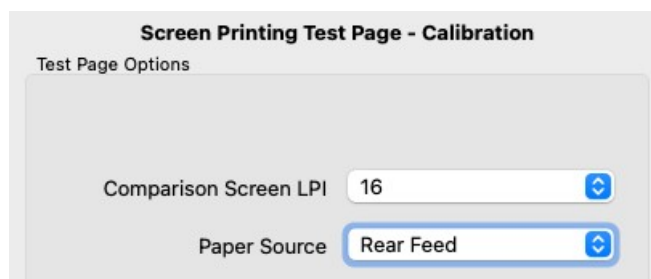
First select the media type (depending on the printer, e.g. "transparent film" or "screen printing film") and a good print quality.

Set the amount of ink as you determined using the test page to determine the amount of ink.

If the printer has been converted to "Multi-Black" or "All-Black" ink cartridges, check the box next to "Multi Black Cartridges".

Optionally you can change the grid settings (LPI, angle, shape).

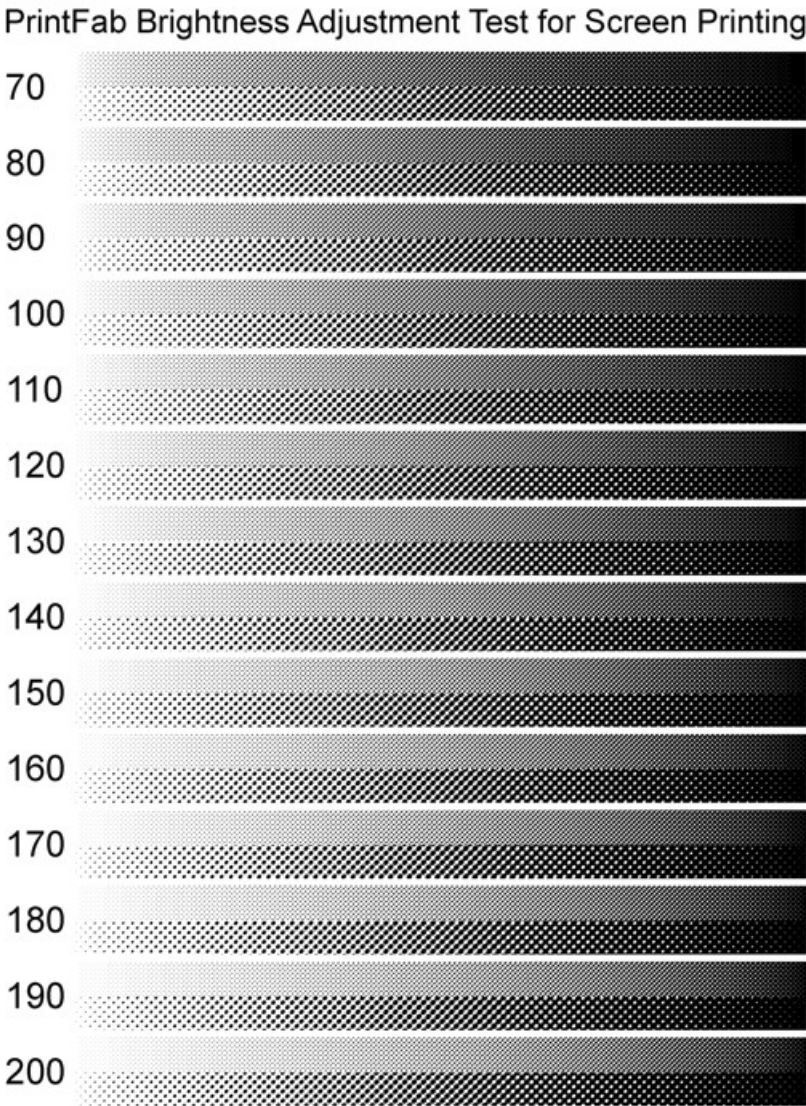
On the next page you can select the comparison halftone width.



The screenshot shows the 'Screen Printing Test Page - Calibration' dialog box, specifically the 'Test Page Options' section. The settings are as follows:

- Comparison Screen LPI: 16
- Paper Source: Rear Feed

The test page looks as follows:

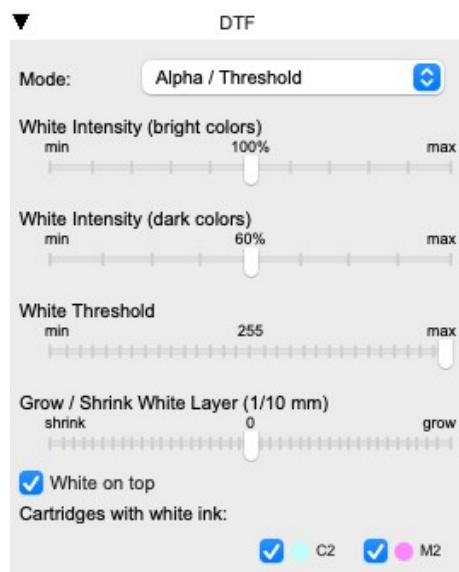


As a next step, you should then create a printing screen from the test page and use it to print onto fabric. Now you can determine the value for which the brightness of the fine and coarse halftone correspond best. Set this value as “Brightness” in the print settings for subsequent prints.

## DTF – Printing with white ink (PrintFab Pro XL only)

Here you can find settings specifically for DTF printing with white ink (DTF = Direct To Film with subsequent transfer to textile via a heat press). PrintFab supports white ink DTF printing for some Epson printer models, information about supported printers can be found at <https://www.printfab.net/dtf.html>

If the PrintFab driver for your printer is suitable for DTF, the media type "DTF ..." will be present in the print options. Only if the media type "DTF ..." is selected, the following settings can be accessed.



- **Mode** - determines where white is printed, see "Controlling the color white"
- **White Intensity** - Adjustment of the print intensity of white. The intensity can be set separately for light and dark colors.
- **White on top** - if this setting is active, white will be printed as the last / top color - this ensures that white is the background color after transfer in the heat press.
- **White Threshold** - see "Controlling the color white"
- **Cartridges with white ink** - here you can select which ink cartridges are used when printing white ink. Depending on the printer model, only certain cartridges are possible. This setting is helpful to disable a cartridge if ink is low or if a print head is clogged. The ink amount that has been selected with the setting "White Intensity" remains the same, i.e. the ink amount is distributed to the active ink cartridges and print heads. If all cartridges are turned off, white will not be printed.

## Controlling the color white

There are the following print modes to determine where the color white is printed:

- **Alpha / Threshold** - for objects with a transparency mask, the mask determines where white is printed. Otherwise, automatic control occurs, see "Control white via

threshold”.

- **Alpha / White** - for objects with a transparency mask, the mask determines where white is printed. Otherwise, white is printed behind the entire object.
- **Threshold** - automatic control always occurs
- **All objects white** - white is printed behind all objects.
- **Full page white** - the entire page is backed with white

When printing directly from applications such as Photoshop, the alpha channel is lost and the color white is automatically controlled instead, see “Control white via threshold”.

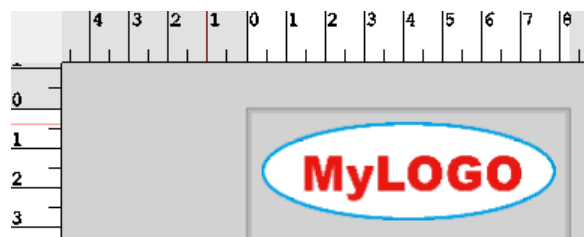
### Control white via transparency mask (alpha channel)

In order to be able to specifically control the color white, image files in PNG or TIFF format with a transparency mask are required. The image's transparency mask (also called the alpha channel) determines the use of white:

Image area is transparent      ⇒ no white is printed

Image area is not transparent      ⇒ white is printed

To check whether the image contains a transparency mask and whether it was loaded correctly by PrintFab Composer, deactivate the option "White background color" in the pulldown-menu "View". The page background in the page editor then becomes gray where there are no images or where they are transparent. The non-transparent areas of images remain white or colored:



### Control white via threshold

When printing directly from applications such as Photoshop or when printing images without a transparency mask via the PrintFab Composer, the color white is automatically controlled by comparing the image lightness to a threshold:

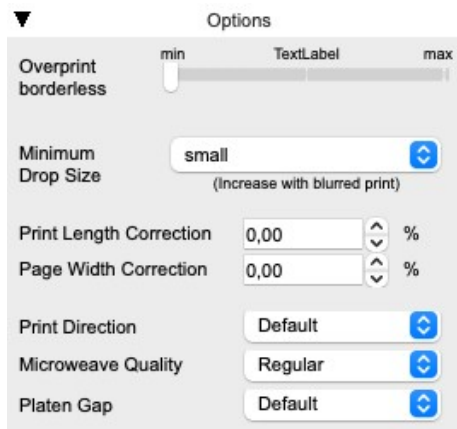
Image area is lighter than threshold      ⇒ no white is printed

darker colors      ⇒ white is printed

The lightness is computed as the average of the color intensities R, G and B.

## Options

Borderless printing settings and printer-specific options



### Overprint borderless

The set value specifies the enlargement factor of the page for borderless printing, so that the print can overlap slightly over the paper edges and thus compensate for slight tolerances in paper feeding / print positioning (no white edges).

Depending on the printer:

- **Head distance** – adjusts the distance of the print head from the paper
- **Print direction** – for Epson printers: Automatic, Bidirectional, Unidirectional
- **Microweave quality** – for Epson printers: Normal or higher quality with slower printing

### Autorotate on Roll Paper (only for roll printers)

Setting of paper roll width and option to automatically rotate pages in portrait format if possible (optimization of paper consumption).

# 11. Print Preview with Layout Editor / Composer

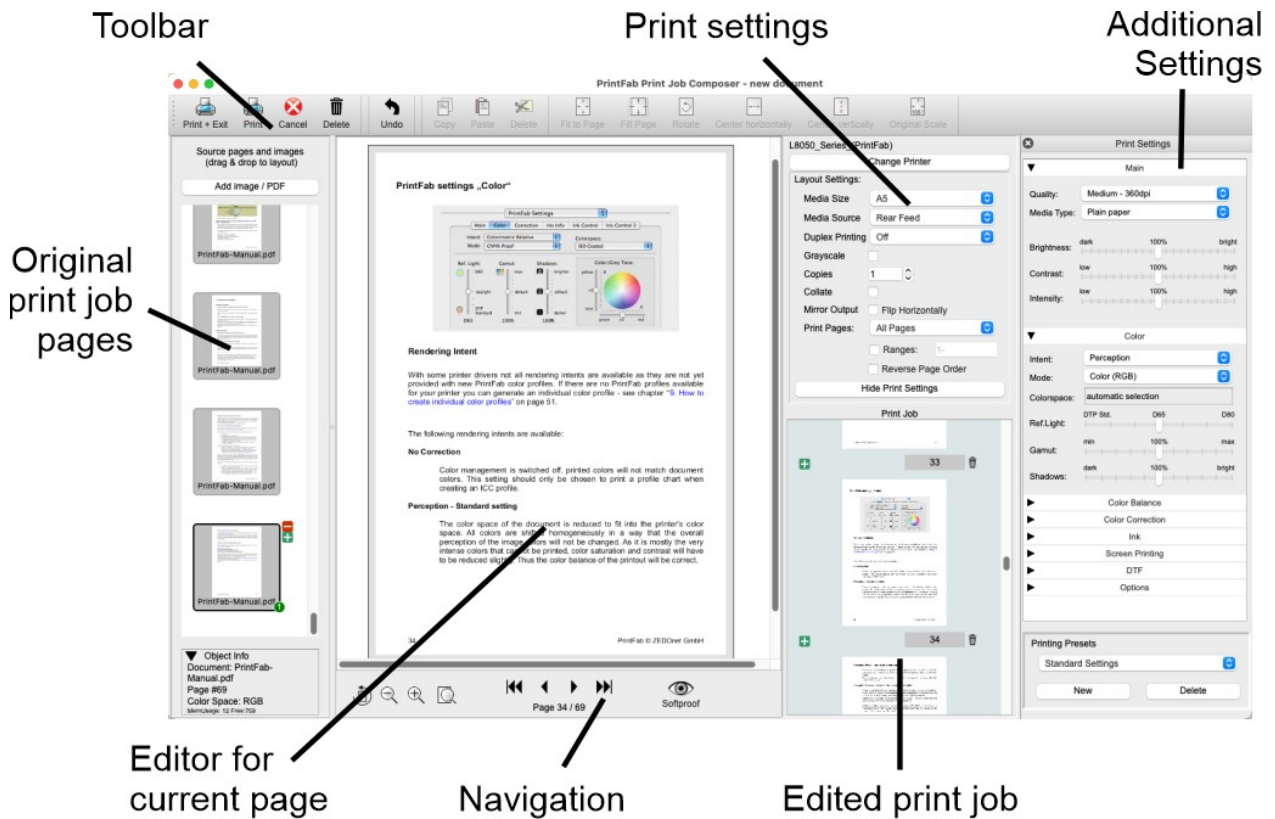
The preview function shows the complete print job on screen before it is sent to the printer. So you can preview each page and then decide whether it shall be printed or not. For this purpose, the print job is passed to the PrintFab Composer (see chapter "10. PrintFab Composer").

With the integrated layout functions you can even modify the print job before actually sending it to the printer. You can scale, crop and move contents, delete or add pages. Further you can also cut out some snippets from different pages of the job and combine them on a new page – this can be convenient when printing web pages where you may want to remove ads or other navigation buttons and enlarge some special contents.

To activate the preview function, mark the checkbox „Print Preview“ on the first index card of the PrintFab print settings dialog. After each print job that is sent, PrintFab now displayw this preview window. Only if you click the „Print“ button in the Print Job Preview window, the job is actually forwarded to the printer.

All functions of the PrintFab Composer can be used, i.e. you can also place image files and PDF files on the pages of a print job.

The print preview window:



The window is split into the following 6 areas:

- Toolbar with buttons on the top
- Table with print settings
- left column: original pages of the print job
- right column: pages of the edited print job
- middle column: editor area where the currently selected page can be modified
- navigation area below the editor area

## **Function overview**

A new print job (right column) is created out of the pages of the original print job (shown in the left column). Initially the new print job is just an unmodified copy of the original print job. Now you can modify each page as required, combine or delete and add pages.

For example, when printing web pages from the Internet browser, you can cut out advertising and only print the parts you want.

## **Change print settings**

In the print settings table, you can click on entries (e.g. "Paper", "Resolution") to change them.

## **Softproof (simulate printed colors)**

In the navigation area below the editor area there is a "softproof" button (symbol "eye") that lets you simulate printed colors. When it is enabled, changes to print settings (like "media type" and "color space") will also change the document colors in the preview window.

## **N-Up printing**

In the pull down menu "Edit" you can find options to change the print layout to e.g. 2 or 4 pages per sheet. Use the "Layout Wizard" to make further selections for automatic arrangement.

## **Page editing**

First select a page of the new print job in the right column. It will be displayed enlarged in the editor area in the middle of the window.

A copy of the original print job page is placed as a „print object“ on this page. Using the mouse you can select this object and move it. When the object is selected, small "handles" are displayed on the edges and borders of its frame.

When you move the handles on the edges, the object's size changes. Moving the middle handles of the frame results in cropping the object. Thus you can cut off parts of the page and just use snippets.

Objects can also be rotated by angles of 90 degrees (button „rotate“).

## **Combining pages**

To combine snippets from different pages, select a page from the original print job (left column) and drag it into the editor field („drag & drop“). Thus a new print object is added to the page which can now be resized, cropped, etc. In the same manner you can add additional objects containing other pages.

## **Changing the order of print objects**

If objects overlap each other, their order can be changed with the buttons “up”, “down“, “to back”, “to front”. These functions are also available in the context menu that shows up when clicking an object with the right mouse button.

The “delete” button removes selected objects in the editor.

## **Adding new pages, removing existing pages**

To add additional pages to your print job, press the button “+” in the right column at the appropriate position where the page shall be inserted.

Then add print objects via drag&drop from the original print job in the left column.

A complete page (and all of its print objects) can be removed from the print job with the button “Delete page”.

## **Print document**

Press the “Print” button to send the print job to the printer. All changes that you have made in the print job will be applied. If you just wanted to review the document without changing it, the document will be printed as sent from your application. Additionally, the Print Job Preview window is closed.

## **Discard print job**

By clicking on “Cancel” the complete print job (and all changes that you made) will be discarded and the Print Job Preview program is closed.

## 12. Silkscreen Film Printing (PrintFab Pro XL only)

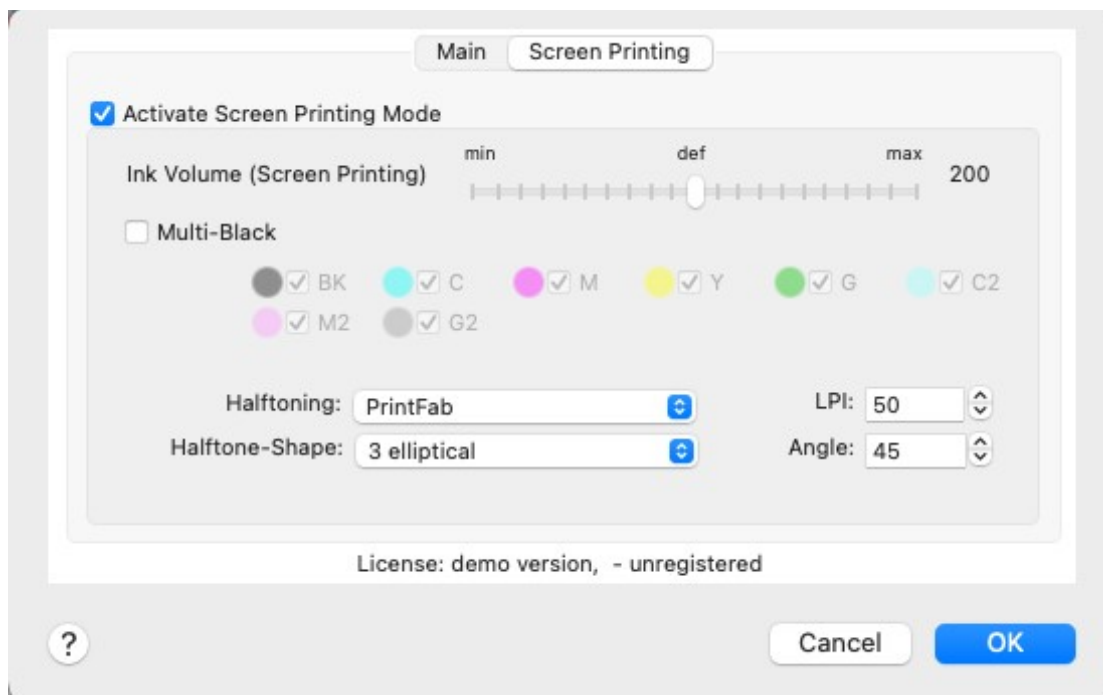
When printing films for screen printing exposure, it is highly important that black ink is printed opaque enough to block the UV light and thus to achieve a good result when the screen is exposed.

For this purpose, PrintFab offers the possibility to significantly increase the amount of applied ink when printing with many Epson and Canon inkjet printers (compared to normal printing on paper). Especially with Epson printers, PrintFab can multiply the amount of ink by making several passes of the print head at a slower paper feed rate. You can find a list of suitable printers and further information at

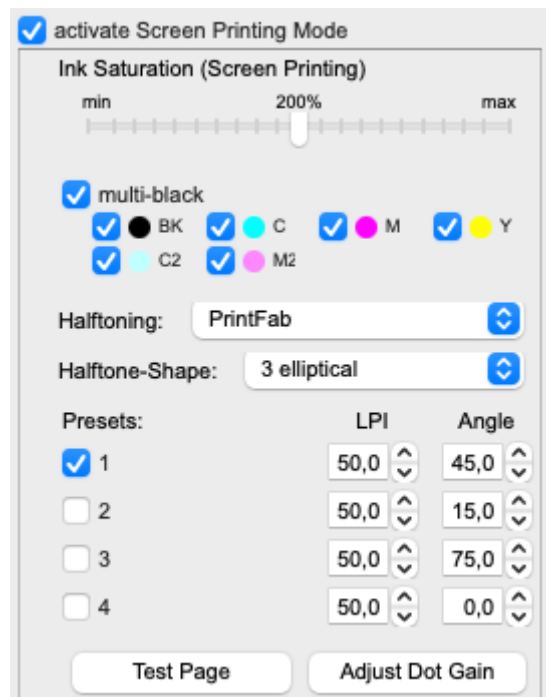
<https://www.printfab.net/screenprinting.html>

### 12.1 Settings for Screen Printing

The PrintFab driver settings for screen printing can be found on the “Options” tab of the printing preferences. They are described in chapter "9.7 Index card “Screen Printing”".



When printing from the PrintFab Composer app, the settings for screen printing can be found in the “Advanced Print Settings” on the right, section ["Screen printing and film printing \(PrintFab Pro XL only\)"](#).



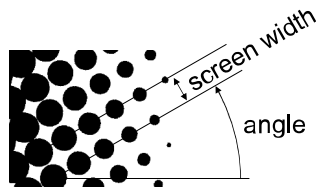
### Adjustment of ink quantity

The amount of ink should be adjusted so that good UV opacity is achieved without ink running on the film. The PrintFab Composer app lets you print an ["Ink Saturation Test Page"](#) to find the suitable ink quantity.

### Adjustment of screen frequency and screen angle

The exposure process is based on a black-and-white process; intermediate tones are produced by means of a so-called halftone raster. The raster size and angle must be adjusted to suit the screen printing mesh and the inks.

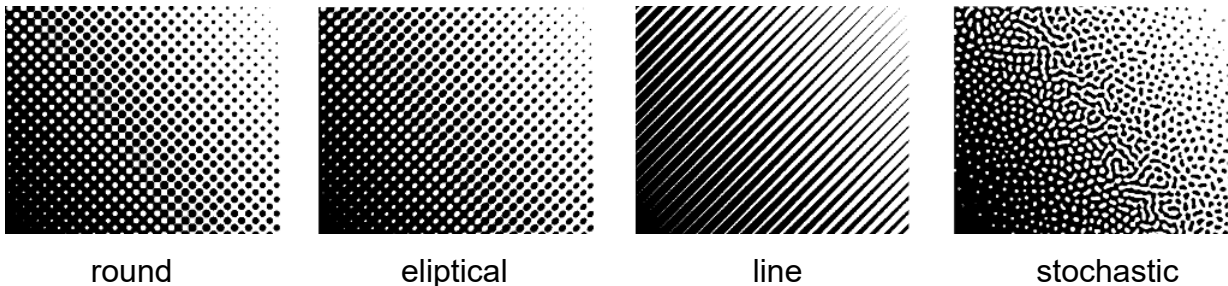
PrintFab only supports printing of monochrome artwork and therefore just offers a single setting for the screen angle. For multicolor prints, color separation must be done beforehand with suitable publishing software such as CorelDraw or Adobe Illustrator - see the section ["12.2 Printing color separations"](#) below.



The setting **LPI** specifies the screen width in "lines per inch" (a higher number means smaller screen width and smaller dot size).

The setting **Angle** adjusts the screen angle.

There are seven **Halftone Shape** settings available from round dots over elliptical dots to line raster.



The setting "stochastic" selects stochastic screening which is "frequency modulated" in very bright and very dark areas, otherwise the dot spacing depends on the LPI setting. The minimum dot size also depends on the LPI setting – at 50 LPI the minimum dot size is approx. 12 micron and at 25 LPI the minimum dot size is approx. 25 micron. The "Angle" setting is ignored.

### Optional Multi Black / All-Black ink set

The black coverage can be increased by using special inks. The black cartridge can be replaced by a "UV Black" with better opacity for UV light or all color cartridges can be replaced by an "All-black" ink set. This allows even more black ink to be applied and - if necessary - allows to compensate for failed printhead nozzles. The PrintFab setting **Multi Black** selects which ink cartridges are used when printing with a printer that has been equipped with several black cartridges. The ink amount that has been selected remains the same, i.e. it is distributed to the active ink cartridges and print heads.

### Printing documents without halftone or images that have already been screened

If you want to print black&white documents or images that have been converted to a halftoned black&white image e.g. using Photoshop, we recommend to switch off halftoning in PrintFab.

To do this, select "Halftone screen mode" = "Single Black (no halftone)" or "Multi black (no halftone)" in the PrintFab options in the print dialog.

When printing via PrintFab Composer, select "Halftone" = "Off".

### **Adjustment of tonal values (brightness reproduction)**

In the process from printing a design via printing on film, UV exposure to the actual silkscreen printing, there are several reproduction steps during which the printing intensity can change. When printing the film, for example, the halftone dots typically become slightly larger (dot gain), making the motive darker. To compensate, the PrintFab brightness and contrast controls can be adjusted.

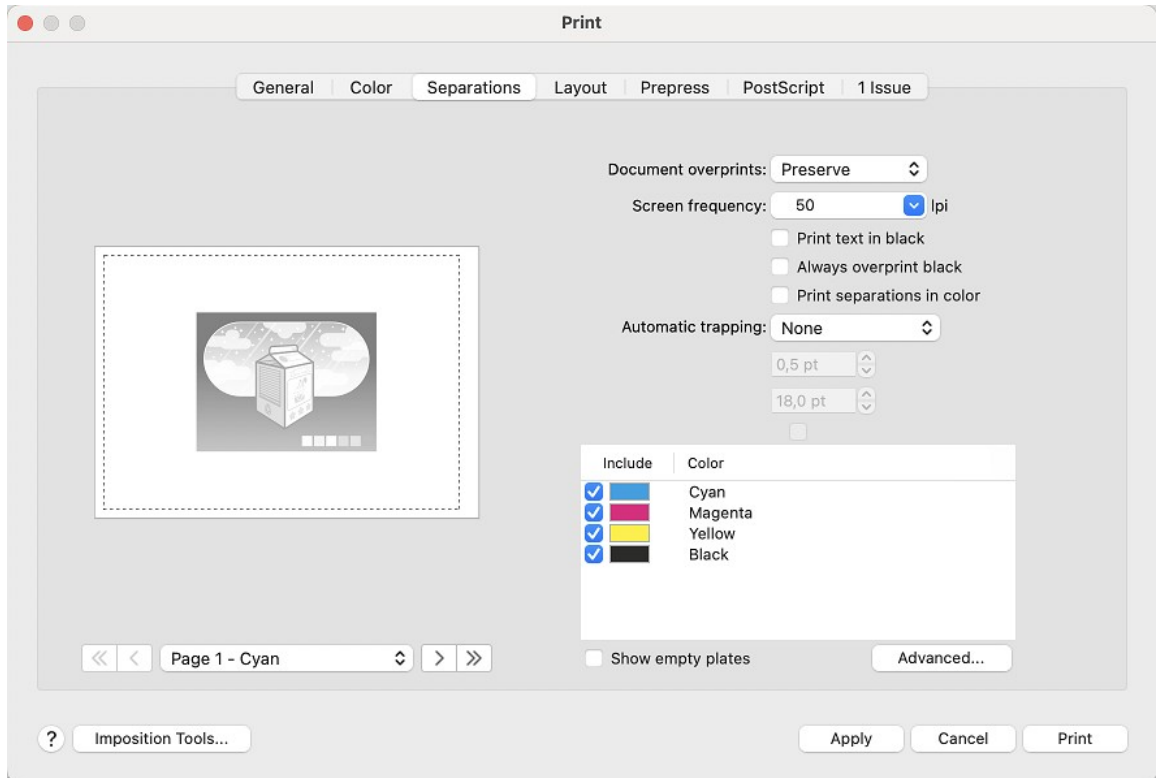
The PrintFab Composer app lets you print a ["Adjust Dot Gain Test Page"](#) to find the suitable brightness value.

## 12.2 Printing color separations

For color screen printing, a so-called color separation is required, with which a colored motive is divided into several color separations for the respective printing plates.

PrintFab itself does not perform color separation. This can be done, for example, using software such as CorelDraw or Adobe Illustrator.

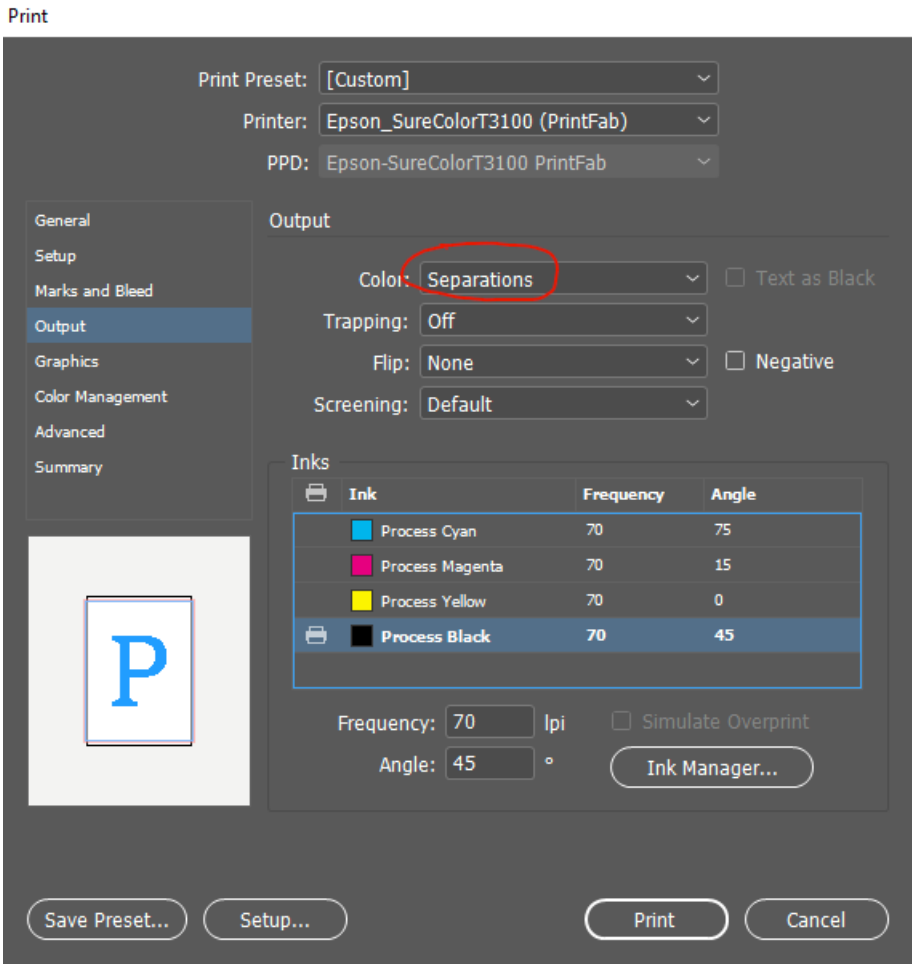
### CorelDraw print dialog – selecting color separations



On tab “Color”, select “Color” = “Separations”.

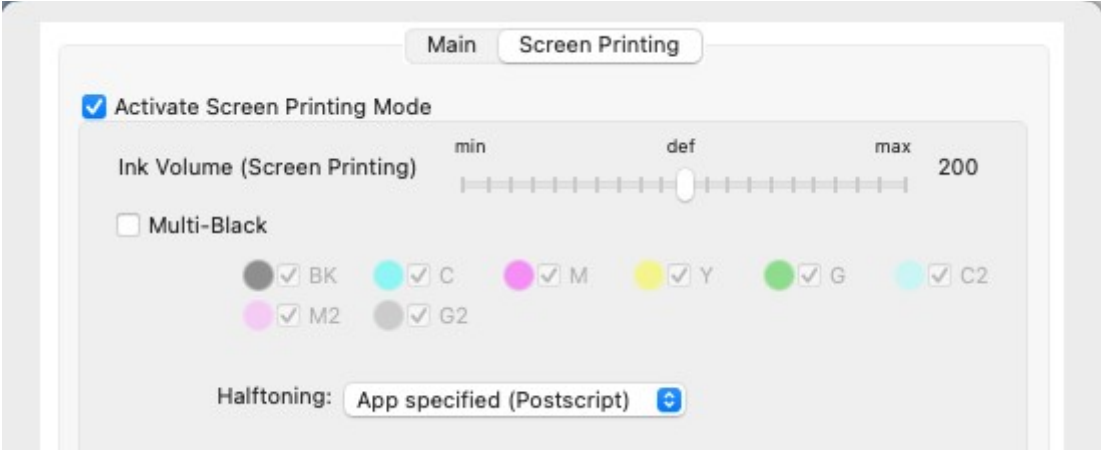
On tab “Separations”, select the color plate(s) to be printed.

**Illustrator print dialog – selecting color separations**



These programs offer print dialog settings for the respective screen frequency and screen angles for the individual color separations.

To ensure that the halftone settings of the application program are used by PrintFab, select "Halftoning" = "App specified (Postscript)".

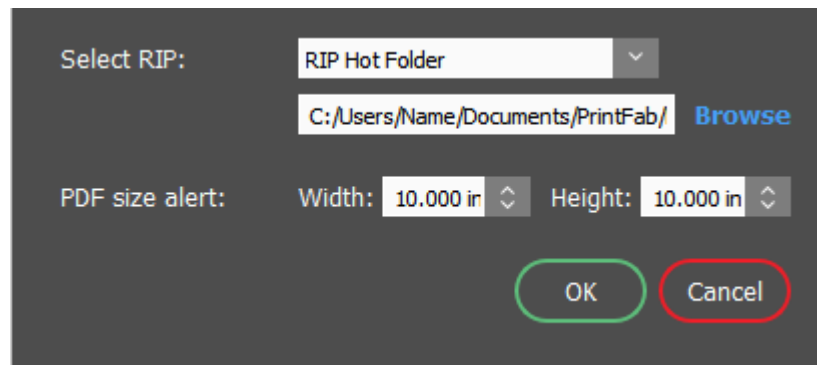


## Separation Studio – print via Hotfolder

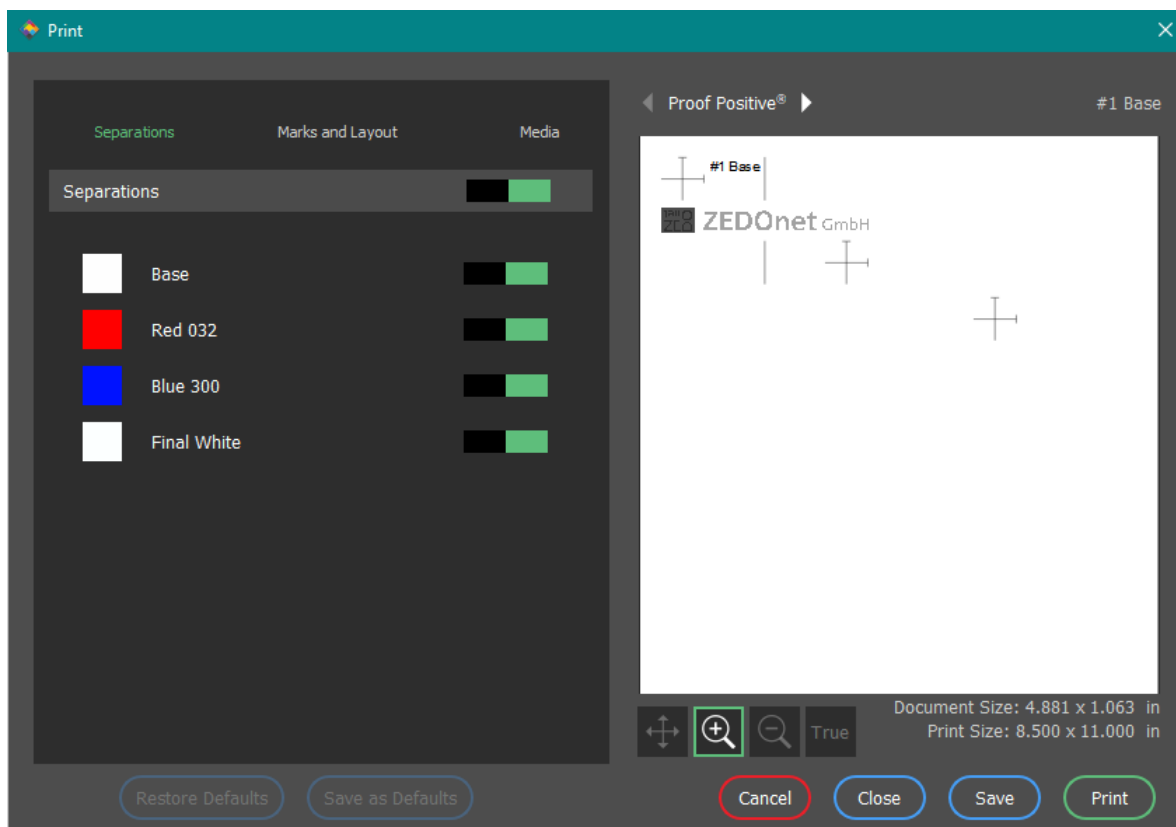
The application Separation Studio can be used to create color separations and print them directly with PrintFab. Printing is done by placing an EPS file with the print job into the PrintFab “Hotfolder”.

Before sending the first print job, you have to specify the location of the PrintFab Hotfolder in the Separation Studio Preferences which is the directory

`/Users/<Username>/Documents/PrintFab/Hotfolder`



When you click on “Print”, a print job file will be created in the hotfolder and thus automatically start PrintFab Composer with the print job.



Please note that you cannot specify screen angle and LPI in Separation Studio, you can specify these settings in PrintFab Composer.

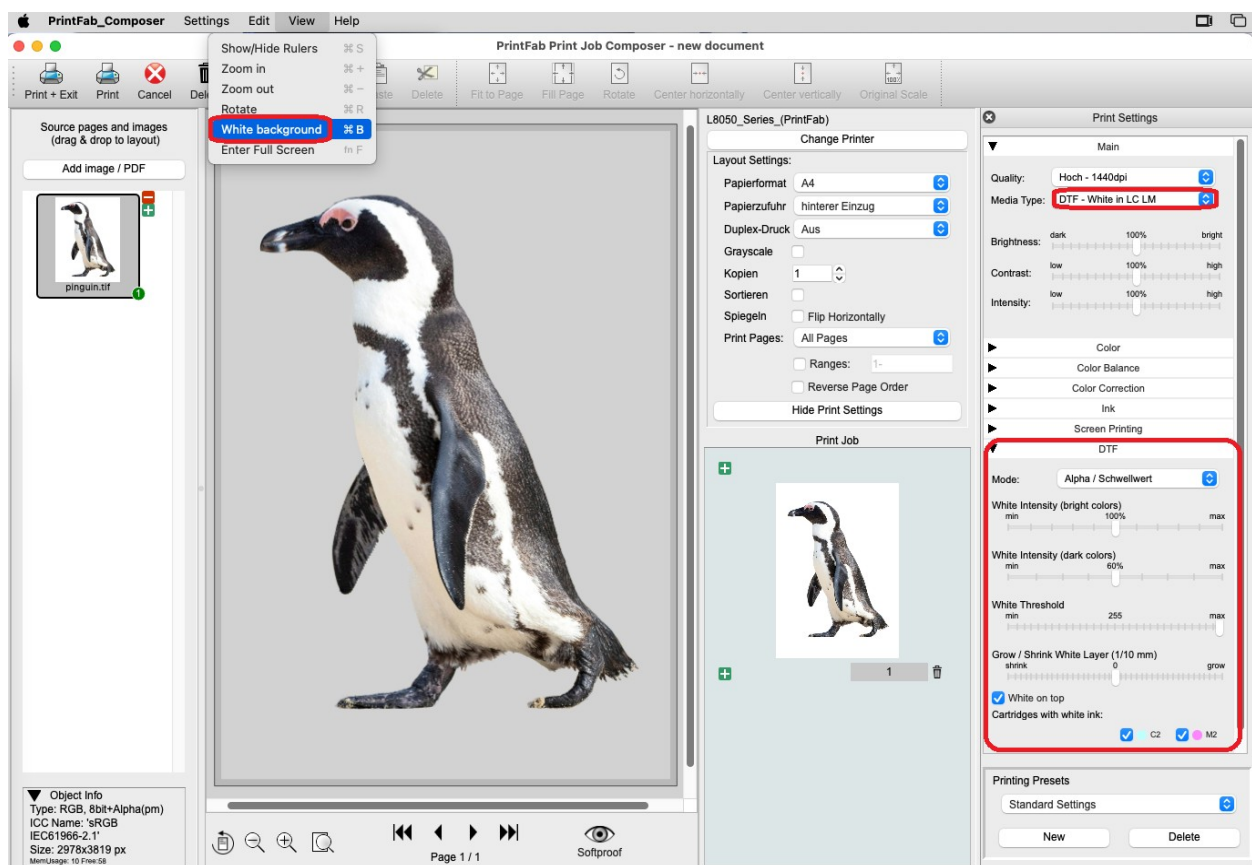
## 13. DTF - Textile printing (PrintFab Pro XL only)

DTF printing (Direct To Film) is a textile printing process in which a motif is printed on a transfer film and then transferred to textile in a heat press. Special inks are used, usually including the extra color white, which makes it possible to print on dark textiles.

PrintFab supports white ink DTF printing for some Epson printer models, information about supported printers can be found at <https://printfab.net/df.html>

### 13.1 Control the background color white in PrintFab Composer

The spot color white can be controlled either via images with an alpha channel (transparency mask) or via an automatic threshold value. You can use software such as Photoshop, Illustrator or CorelDraw to create your artwork and save to PNG or TIFF with alpha. Then use PrintFab Composer to arrange and print.



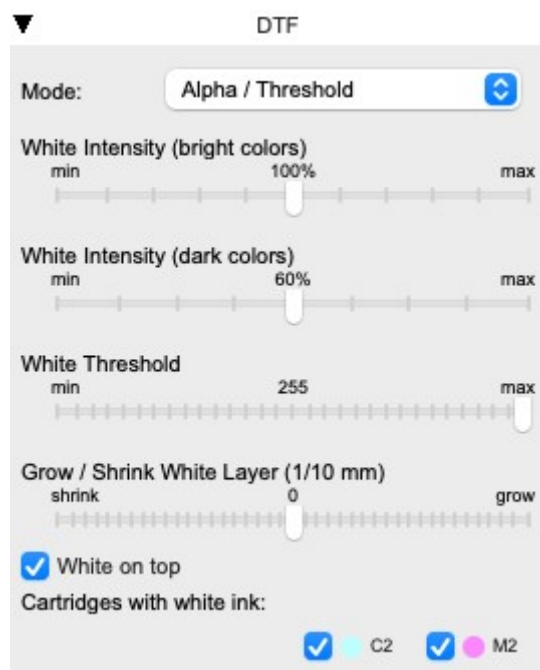
The image's transparency mask determines the use of white:

Image area is transparent ⇒ no white is printed

Image area is not transparent ⇒ white is printed

To check whether the image contains a transparency mask and whether it was loaded correctly by PrintFab Composer, deactivate the option "White background" in the pull-down-menu "View". The page background in the page editor then becomes gray where there are no images or where they are transparent. The non-transparent areas of images remain white or colored.

In PrintFab Composer, the settings for screen printing can be found in the “Advanced Print Settings” on the right, section “DTF”. The settings are only active if the PrintFab driver supports DTF printing and the media type “DTF” is selected.



- **Mode** - determines where white is printed, see “Controlling the color white”
- **White Intensity** - Adjustment of the print intensity of white. The intensity can be set separately for light and dark colors.
- **White on top** - if this setting is active, white will be printed as the last / top color - this ensures that white is the background color after transfer in the heat press.
- **White Threshold** - see "Controlling the color white"
- **Cartridges with white ink** - here you can select which ink cartridges are used when printing white ink. This setting is helpful to disable a cartridge if ink is low or if a print head is clogged.

A detailed explanation can be found in the description of the settings ["DTF – Printing with white ink \(PrintFab Pro XL only\)"](#) in the PrintFab Composer.

## 13.2 Color profiling for DTF printing

Color profiling is almost the same as with normal printing, see chapter ["8.1 Index card Printer Profiles"](#). When creating the profile entry in the "Profiles" dialog of the PrintFab app, select

"Type of paper" = "DTF Printing"

## 14. Hotfolder

The PrintFab Hotfolder is a special directory into which you can copy files that you want to print. The file type can be JPG, PDF, PNG or TIFF. As soon as a file is copied into the folder, the PrintFab Composer application opens and the file is placed as an object on the page. If the PrintFab Composer is already running, the file is only added as an object in the left column and can then be placed on the page using “drag & drop”.

The hotfolder is located in the user document directory

```
/Users/<Username>/Documents/PrintFab/Hotfolder
```

### **Attention:**

Documents placed in the hotfolder are immediately moved to a temporary directory by the PrintFab Composer and deleted after the composer has finished. To avoid losing any files, be sure to use the function “**Copy & Paste**” instead of “**Drag & Drop**” or “**Move File**”.

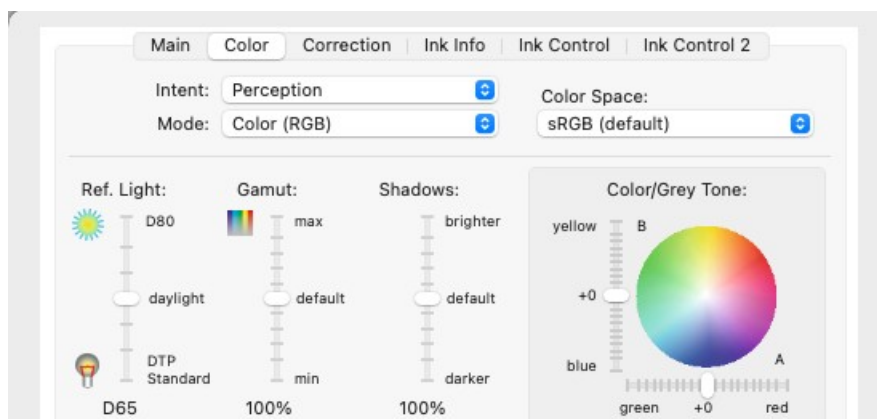
## 15. Printing from Applications

The information in this chapter refers primarily to printing in CMYK mode (PrintFab Pro only). PrintFab Home always works in RGB mode and the default settings in the print dialog are suitable for printing from all application programs.

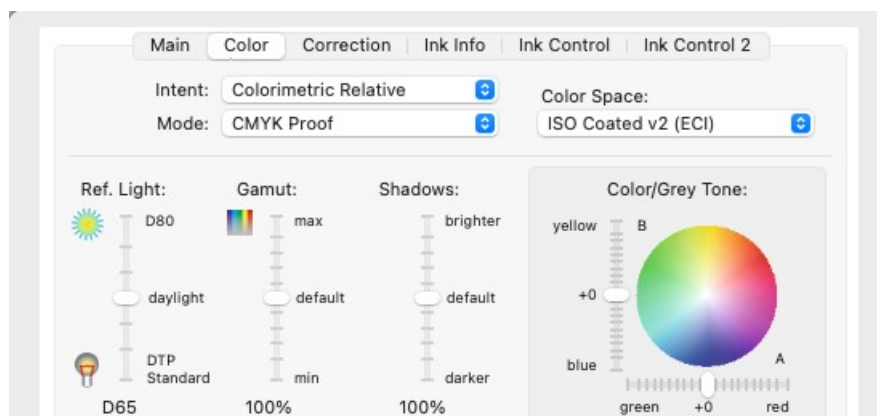
### 15.1 General information on print dialog settings

It is important that the same color mode that is used in the document is chosen in the PrintFab driver settings, tab "Color".

For **RGB** documents select "Mode" = "Color (RGB)". Also select the correct document color space (default: "sRGB") and the desired rendering intent (default: "Perception").



For **CMYK** documents choose "Mode" = "CMYK Proof" or "Mode" = "CMYK Proof (Mix Black)" for smoother dithering. The intent should be set to "Colorimetric Relative". It is important to select the same color space as in the document or application. If the color space is not available, install it in PrintFab Control Center, button "Profiles" -> "Color Spaces".



A detailed description of all print dialog settings can be found in chapter 9 "[Print dialog settings of PrintFab](#)", page 36.

## 15.2 Printing PDF Documents

If you create PDF documents for a print house, make sure to export them in "CMYK" color space only (PDF/X-1a).

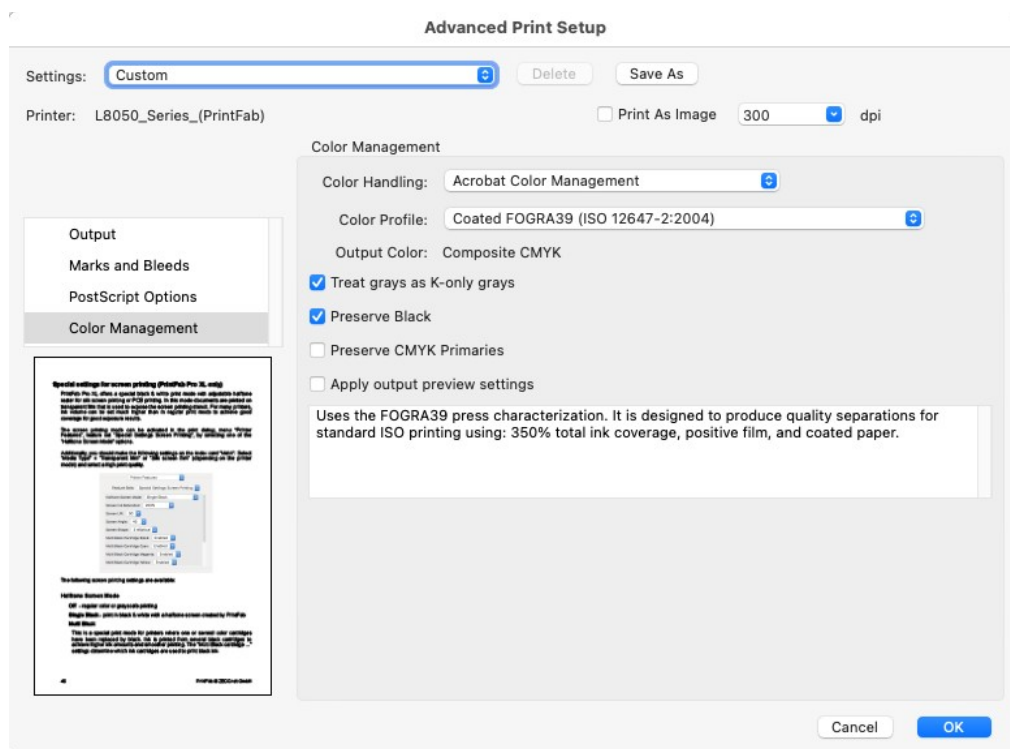
If you want to create "proof prints" with correct colors, we recommend to load and print PDF documents directly from **PrintFab Composer**.

Also suitable for printing PDF documents are the macOS app "Preview", Acrobat Pro and also the freely available Acrobat Reader. Also make sure that the PrintFab driver settings have been set correctly for CMYK printing (see above).

### Acrobat Pro

Normally, no settings have to be changed in the Acrobat print dialog. If colors are incorrect, check the following settings:

In the print dialog, section "Copies & Pages" press "Advanced..." .



In the "Advanced Print Setup" dialog, section "Output", select

"Color Management" = "Acrobat color management".

"Color Profile" = (Color profile of document)

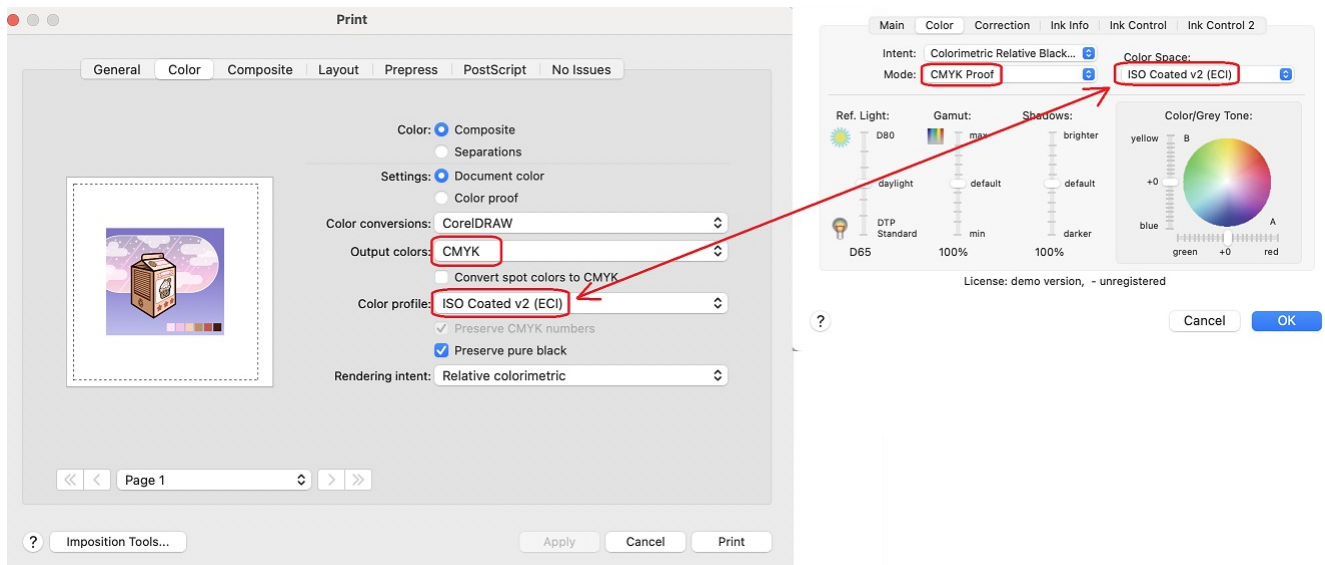
### Acrobat Reader

Check the "Advanced" settings in Acrobat Reader's print dialog: The option "Let printer determine colors" must be *enabled*, "Print as Image" must be *disabled*.

## 15.3 CorelDraw

Normally, no settings have to be changed in the print dialog - the default settings in Coreldraw and PrintFab are for RGB printing.

If you create documents for a print house, you should make a "CMYK proof print". In the print job all document objects will be converted to CMYK color space - this means that colors are the same as when exporting a PDF document in CMYK mode. In the Coreldraw print dialog, tab "Color" choose "Output color as: CMYK".



Then go to tab "General" and press "Preferences..." to open the driver settings and configure PrintFab for CMYK proof printing:

Color Mode = "CMYK Proof" or "CMYK Proof (Mix Black)"

Intent = "Colorimetric Relative" or "Colorimetric Absolute"

Color Space = ... (choose the CMYK color space of your document)

## 15.4 Photoshop

When printing from Photoshop, the color profile must be set correctly in the Photoshop print dialog and in the PrintFab driver settings. Open the Photoshop print dialog “Print”.

In the “Color Management” options select

“Color Handling” = “Photoshop Manages Colors”

“Printer Profile” = <Profile of Document>

“Normal Printing” (**not** “Hard Proofing”)

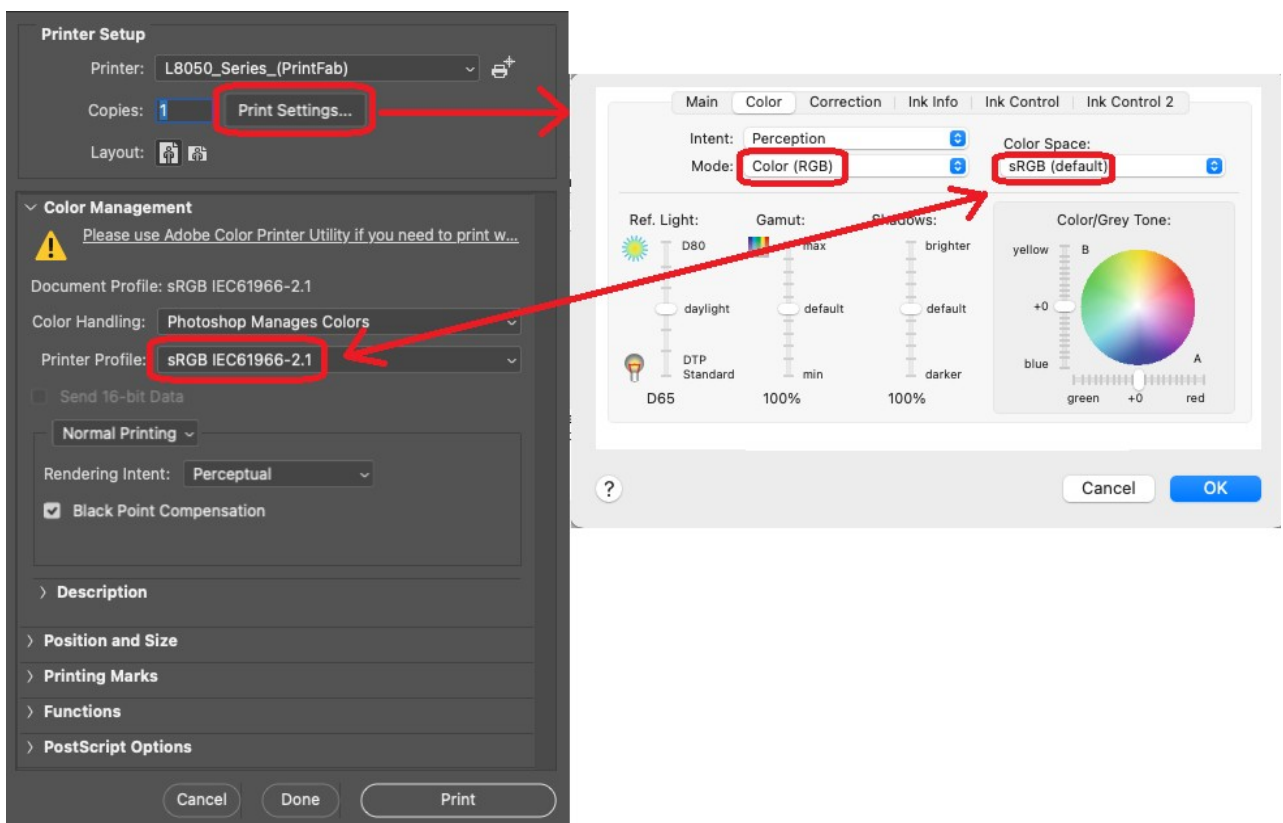
“Rendering Intent” / “Black Point Compensation” = any setting (no color management done, because document profile and printer profile are the same)

**Note:** A possible Photoshop warning (“No color management is not supported”) can be ignored (press “Cancel”).

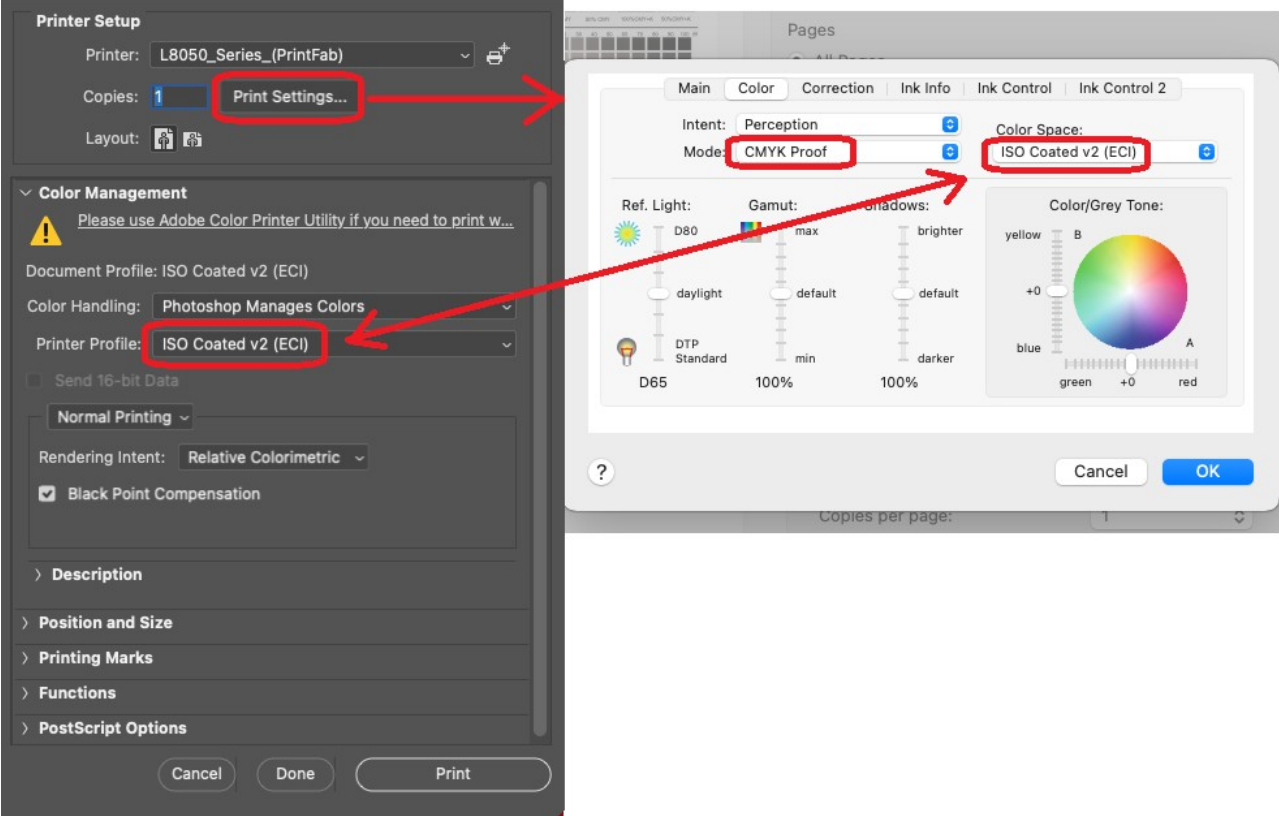
Press “Print Settings” to open the PrintFab driver settings. Choose the correct media type and print quality.

Then click on tab “Color” and select the color mode (RGB / CMYK) and intent (e.g. “Perception”) and select the color space of your document as in Photoshop.

Document in **RGB** color space:

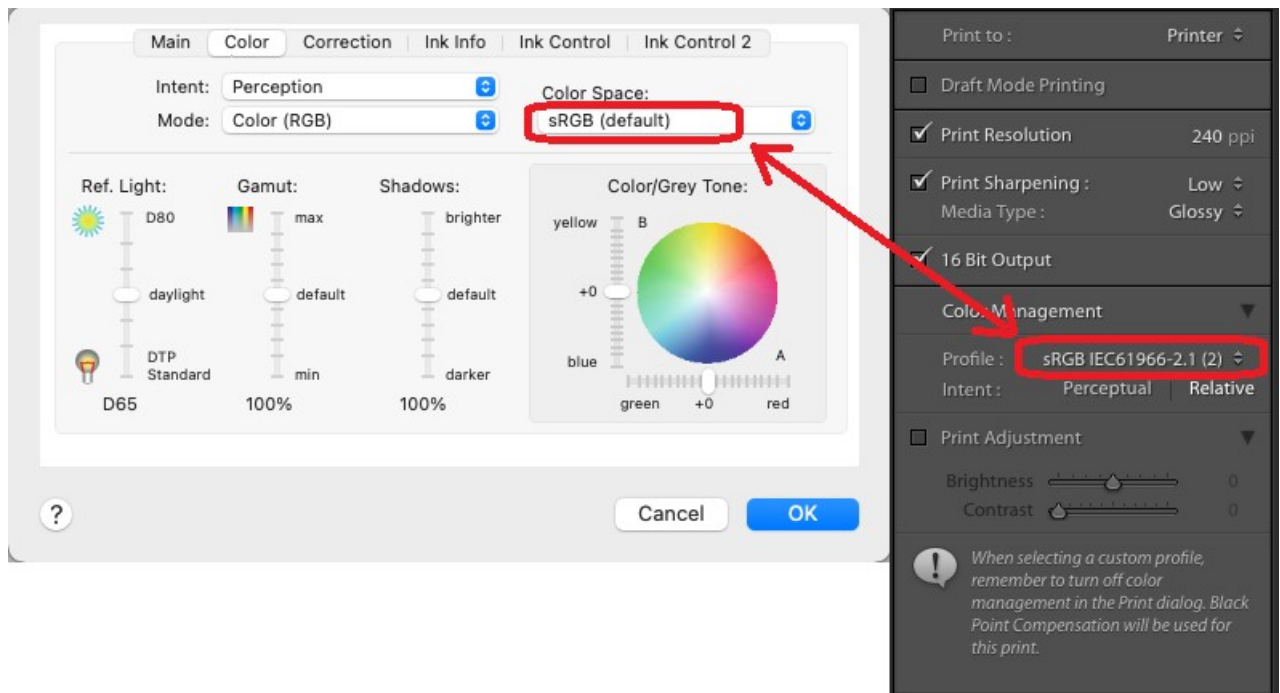


or Document in **CMYK** color space:



## 15.5 Lightroom

It is important that the same color space / color profile is selected in the Lightroom print dialog and in the PrintFab printing preferences:

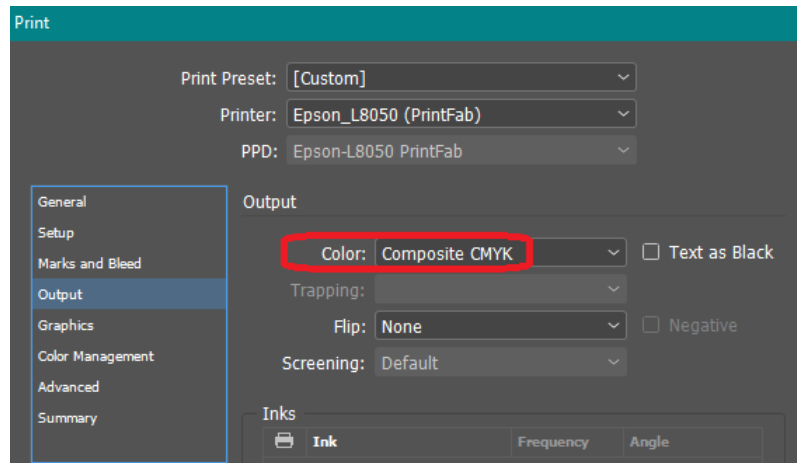


## 15.6 Illustrator / Indesign

This section describes how to create a **CMYK proof print** from Illustrator or Indesign. In the print job all document objects will be converted to CMYK color space - this means that colors are the same as when exporting a PDF document in CMYK mode.

### Indesign only:

Choose “Color” = “Composite CMYK” in “Output” settings of the Indesign print dialog.



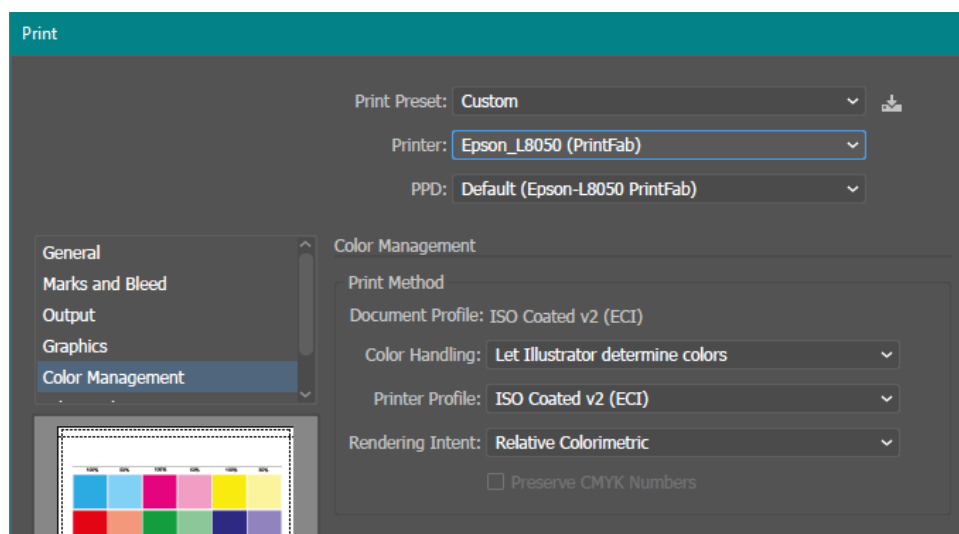
In “Color Management” settings choose

“Print” = “Document”

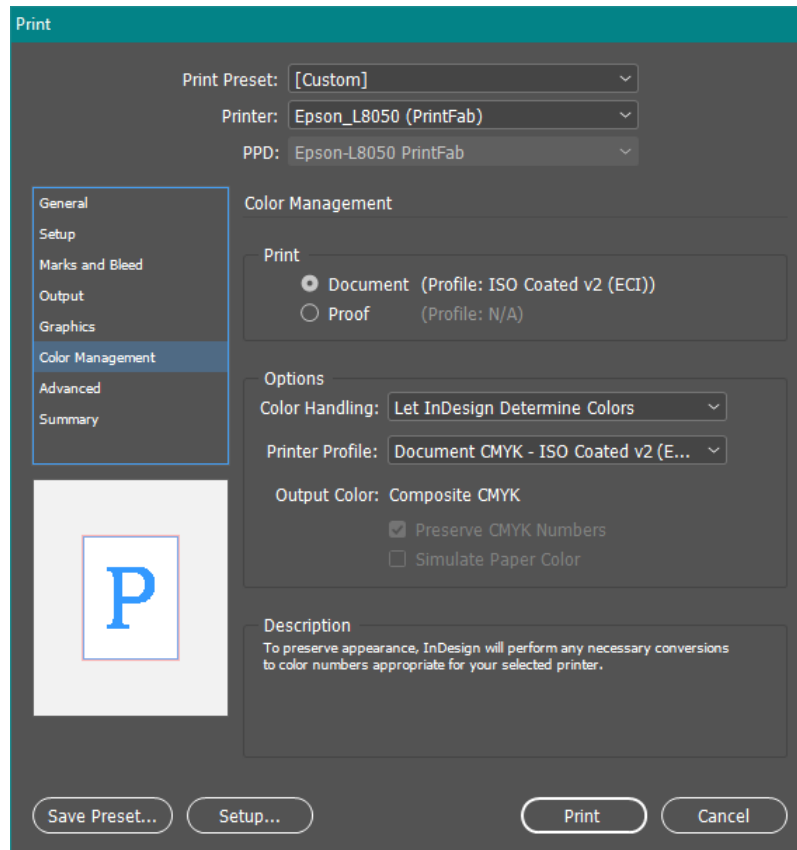
“Color Handling: Let Illustrator / Indesign Determine Colors”

“Profile” = “Document CMYK - ...”

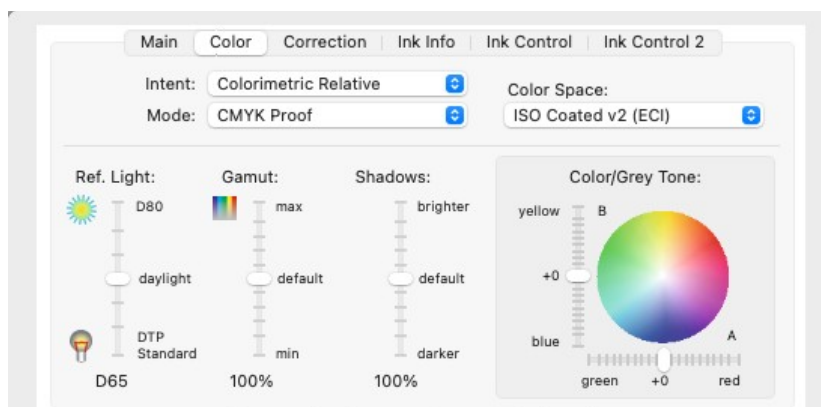
### Illustrator:



## Indesign:



Use the button “Setup...” to open the **PrintFab driver settings**. Open tab “Color” and make the following settings:



Color Mode = “CMYK Proof” or “CMYK Proof (Mix Black)”

Intent = “Colorimetric Relative” or “Colorimetric Absolute”

Color Space = ... (choose the CMYK color space of your document)

## **16. Problems and solutions**

### **16.1 Feedback form**

Please send your feedback on PrintFab to our support team – use this form:

[www.printfab.com/en/feedback.html](http://www.printfab.com/en/feedback.html)

### **16.2 Support forum**

You can also visit our support forum to find solutions or post questions:

[www.printfab.com/en/support.html](http://www.printfab.com/en/support.html)