

# DATAGUIDE

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## Short Overview

### Bleed

- Final format + 2mm border
- Print marks such as cut marks, bleed or print color strips can be omitted

### Color Management

- Please leave RGB-Files as (uniform) RGB-Profile
- Save CMYK-Files as coated-Profile - including for uncoated printing materials
- Convert LAB-Profile to RGB
- Overprint black font (up to 20pt) on colored print areas

### Resolution

- Sheets (up to DIN A3) 1:1 Ratio 350dpi
- Large Format (> DIN A3) 1:1 Ratio min. 150dpi

### Imposition

- Do not impose (**NO** step-and-repeat or spreads)
- **One-sided** page files in one PDF

### File Format

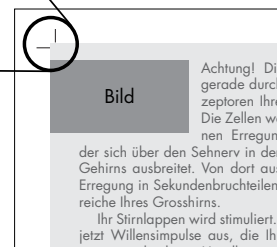
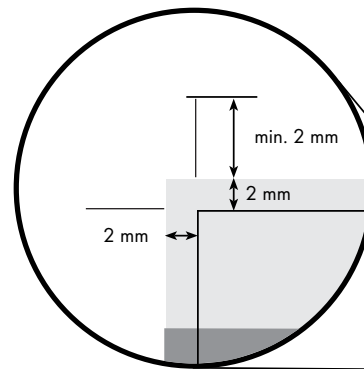
- PDF/X-3 (JPEG-Compression max. quality)
- Please only send open files after consultation or for personalized print orders, as InDesign file with all images and fonts

## Detailed Information

### Bleed and Print marks

#### Why a bleed?

Because a print on 2 different sheets can never be 100% exact to one another, when cutting a stack there could be unwanted white border lines left over. To avoid this we require a bleed. Pull print areas, images, and graphic elements over the final format borders. This image bleed over the print borders should be a minimum of 2mm.



#### Inward Borders

For the best possible print result it is recommended to leave at least a 2mm distance between the print border and important print information (text, certain image elements). The remaining print elements that should look as equidistant to the print edge as possible should have a minimum of 5mm distance from the print edge.

#### Paper Shingling

Paper shingling describes the staggering of paper resulting from the folding of sheets required for a saddle-stitch or brochure binding method. The sheets towards the middle of the folded signature get pushed out when folded. After the final front cut, these sheets get trimmed significantly more than those on the outside of the stack. These must be considered if there is any print information on the edge of the sheet (inward borders, page numbers). This can be mitigated through a special imposition software that pushes the pages accordingly away from the margin. A disproportionate scaling of the X-axis is, unfortunately, not possible.



#### Print Marks

Cut marks, bleed, print color strips, registration marks, etc. are not necessary for print preparation. Their presence is also not bothersome. Please be aware that registration marks and/or print control strips as well as 4c cut marks are omitted when you would like to print 1c black. A 1c print with 4c elements is not possible.

## Color Mangement

### Color Management in Digital Sheet Print

#### **Caution**

The main problem with color management lies in the conversion of color spectrums. The color spectrum of printers (CMYK - spectrum) is, unfortunately, much smaller than that of monitors, digital cameras and scanners (RGB - spectrum). When converting a color spectrum certain settings need to be checked so that the printed file matches not only your digital file but also your expectations.

#### **Proper Conversion**

When you convert your files from RGB to CMYK you can view drastic changes on your monitor and when necessary, rework them. Alternatively, we suggest allowing us, without extra cost, to convert the color spectrum. By using color profiles specially written for our printing systems, you can benefit from the sometimes larger color spectrum our printer offers. This is especially suggested for pictures. Should you require full-tone colors or special corporate-identity-colors in 4c, these need to be formatted in CMYK. It is helpful to have a previously printed example that we can compare and orient the colors to. Generally acceptable: mixing of RGB and CMYK in one document is possible, this can, however, be risky when exporting to PDF. Colors that look the same on a monitor but are partially RGB and partially CMYK will when converted and printed look different.

#### **The Right Profile for All Standards**

RGB: Adobe RGB (1998), sRGB, eciRGB\_v2

CMYK for print and proof on coated papers:

ISO coated v2, ISO coated v2 300, new since 09/15 even FOGRA51 – PSO Coated v3

CMYK for print and proof on uncoated paper:

PSO Uncoated ISO12647, new since 09/15 even FOGRA52 – PSO Uncoated v3

CMYK for proofing on newspaper: ISO newspaper 26v4

CMYK for proofing on web-offset (LWC-papers / magazine prints): PSO\_LWC\_improved

Download: [www.eci.org](http://www.eci.org), [www.wan-iffra.org](http://www.wan-iffra.org)

Our supported source profiles for converting RGB to CMYK:

sRGB, AdobeRGB, AppleRGB, ProPhoto

### **Reproducibility in Offset vs. Largest Possible Color Spectrum**

With digital printing paper does not soak in ink as much as with offset printing. As a result we can print more demanding, brighter colors on uncoated papers. Offset specifications and requirements do not affect your product, so we suggest to either set your file to RGB ('Proper Conversion') or to use a Coated-Profile. However, for the sake of reproducibility, converting to the appropriate offset profile is indispensable.

### **Profiles for Proofs**

For proofs it is always a good idea to use the necessary profile for your print. A conversion to CMYK should always be done beforehand. Please take into consideration that proof file should have the same settings as the final print file. The digital proof 'special colors' (HKS, Pantone, etc.) are only on hand as a 'Look-Up-Table' (pre-set 4c-color-values replace the special colors). This means that special colors are always represented by approximate values and the reliability of the proofs is connected to CMYK settings. Are you unsure of your profile? Ask us to suggest what paper type to use or feel free to peruse the paper sortiment samples we have on hand. With LWC-papers it is suggested to use a roll-offset printer.

### **Flat or Color Fault - Black Values in Gray-Scale Images**

Gray-scale images are often too flat or dull when printed. This can be avoided by setting gray-scale images in 4c. By doing so, one has more control over contrast and saturation.

The danger here is, which becomes an additional cost, that a small color spot, or fault, can appear in the edition (this is merely a possibility) and can eventually appear in different areas. The reason is the nature of the color-based construction of the gray being used and the standard technical limitations of the printer itself. When working with a neutral gray (C20 M20 Y20 K0) and the printer prints C19 M21 Y20 K0, the resulting image is a gray-scale image with a light red, or warm hue. This can also happen when a print seems to be 1c black but is set as RGB.

### **Conclusion:**

*A guaranteed gray-scale image can only be achieved with a file that is set as 1c black (Euroskala). To get more contrast and saturation, one should set the file as more than simply a black channel (CMYK) or as RGB. The risk here is a color fault.*

## **Color Management in Large Format Print / Inkjet Printing**

### **To Begin**

This informational text relates exclusively to large format prints such as photos, banners, posters, etc.. The basics for a proof print are completely different and can be referred to in the topic color management in digital printing under the 'Proofs and Profiles' subject.

### **Basics**

As our high quality large format printer works with 9 or 11 colors, during RIP (Raster Image Processor) the colors are always converted according to calibrated profiles, which are set with the print substrate. This affects both RGB as well as CMYK colors.

### **Business, Fine Art Quality and Direct (UV) Plate Printing**

The fine art print shines with finely tuned gray balance, richness in detail and a broader color palette. This result is a combination of the number of available colors (up to 11), calibration, high quality paper and a finer raster.

Our business quality is a more economical price. We use a solid poster paper and print with the classic 4 print colors (CMYK). The color options are narrower and resolution somewhat rougher.

The direct plate print also uses the 4 basic colors (CMYK), and is extended with white and a partial glossy lacquer or varnish. The resolution is comparable to the business print.

### **Printing White and Partial Lacquer with Direct Plate Printing - how to format colors**

White: set any full-tone special color, not otherwise used in the document, and name it: RDG\_White (please keep this description).

Lacquer: set any full-tone special color, not otherwise used in the document, and name it: RDG\_Gloss (please keep this description).

Please be aware that the overprint settings are correct for these two color settings.

Lacquer must be set to 'Overprint' and white must be set to 'Avoid'.

### **What does it mean for a profile choice when building the print file?**

Based on the conversion in the much larger color spectrum of the inkjet printer, it makes sense to deliver the print file in RGB, to make use of the larger scope. With direct plate printing and our business quality printing one can also resort to a RGB-profile, however, there is not a large increase in print quality. Should one require a CI (Corporate Identity) color, one can leave the CMYK setting and still send a CMYK document or mix both color spectra in one PDF.

### **Which Profiles are Appropriate**

RGB: Adobe RGB (1998), sRGB, eciRGB\_v2

CMYK for printing on coated papers

FOGRA39 - ISO coated v2, ISO coated v2 300, FOGRA51 - PSO Coated v3

CMYK for printing on uncoated papers:

For a higher brilliance of your prints use a coated profile.

Download: [www.eci.org](http://www.eci.org), [www.wan-ifra.org](http://www.wan-ifra.org)

## **Resolution**

Those of your images that will be used should be scaled to sheets of 1:1 with a resolution of 350dpi. A higher resolution unnecessarily bloats the image and has no technical advantages. Use the JPEG-compression at the maximum quality level.

There is an exception to large format prints: because of the expected large file formats and through a specially optimized print technique we require a resolution of only 150dpi.

## **Imposing - the Correct Position of Pages**

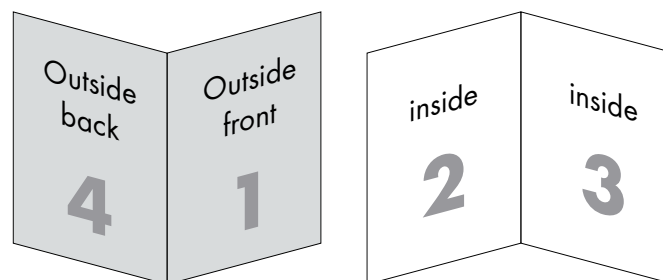
### **Imposing**

Imposing is the reorganizing of the pages in your file that will then be printed, this is essential to keeping the proper page order after folding or binding.

We will normally impose your files for you, following you will find tips and rules for imposing.

### **Folded Card**

You can send us an already imposed file for folded cards. Please consider the correct pagination, as in a book.





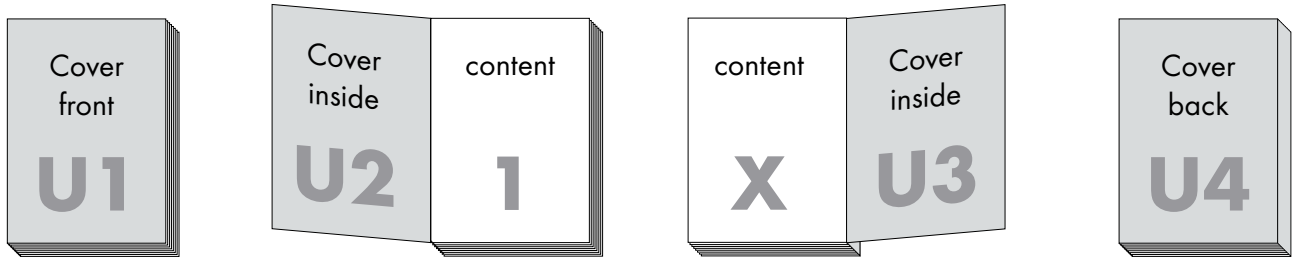
## General Books and Brochures

For all books and brochures:

The contents of the book can be formatted as a one-sided PDF.

Do not forget: The contents of a book always begins with a single right-sided page.

The first page can never be double-sided.



Please keep in mind that the pages marked with a U are parts of the cover.

The inner part always begins with a right page and always ends with a left page.

## Saddle-Stitch Binding

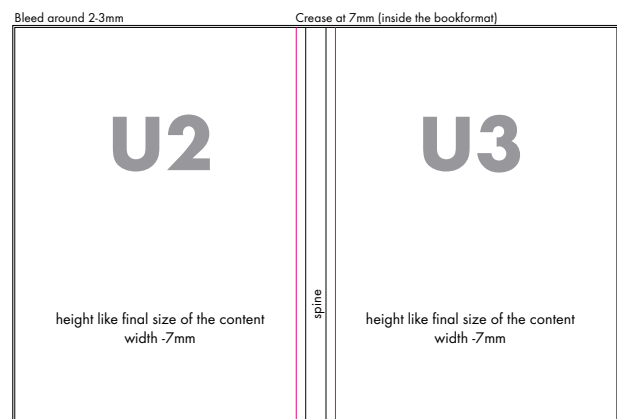
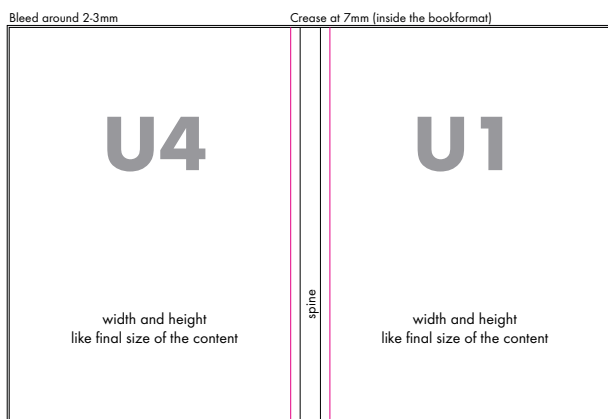
The page total needs to be divisible by 4! Please let us know if the cover/back pages are formatted as pages 1+2 and second to last + last pages or as an individual file. Both are possible. Please note our section on 'Paper Shingling' as well as formatting a chronological pagination.

## Softcover Perfect Binding

The pages of a perfect bound book cannot lay flat, as with saddle-stitch and thread-stitched books. One loses about 5-10mm optically towards the inside of the book, which should be considered when designing and formatting the book.

Cover: The cover should be imposed when formatting. The size of the spine can be calculated on our website (Buchrückenstärke berechnen) or you can simply ask us.

On the inside pages of the cover (U2-U3) the spine plus a border of 4mm from the right and left of the spine should not be printed upon. This will ensure that the hot glue dries properly along the spine.



## Softcover Thread-Stitching

As with a saddle-stitch the page number for a thread-stitched book needs to be divisible by 4!

Contents: In case you would like to format your contents in a particular imposition schema, please inform us or consult your bookbinder. Otherwise we use a specific order. Your info can look like this, for example:

Example 1: 6 signatures with each 12 pages

Example 2: 1st signature: 16 pages, signatures 2-4: 12 pages, signature 5: 16 pages

Cover: The cover should be imposed when formatting. The measurement for the spine can be calculated after the contents has been sewn together, this is especially important with higher page count books.

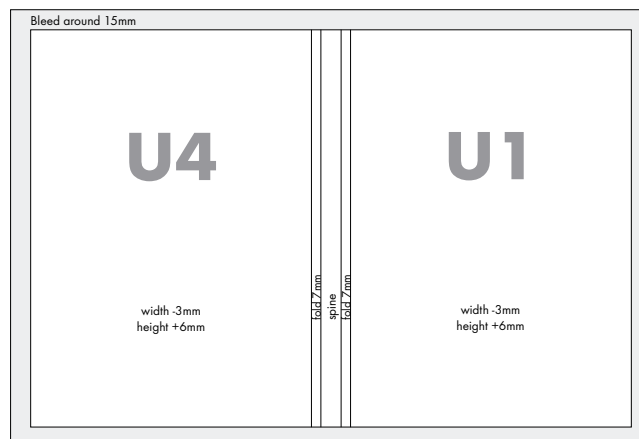
You can also discuss a method with us.

On the inside pages of the cover (U2-U3) the spine plus a border of 4mm from the right and left of the spine should not be printed upon. This will ensure that the hot glue dries properly along the spine.



## Linen or Paper Hardcover, printed Endsheets

When formatting a hardcover, do not format just the cover but the upholstery for the cover. Because of this there needs to be a good bit extra cover given. Please follow our diagram below. The print files for the cover (both paper and linen prints) can be similarly formatted (resolution, color management, etc. - exception: the bleed must be larger (15mm all around border)). Please keep in mind that from the nature of the material structure, prints on linen will not be as clear as prints on paper.



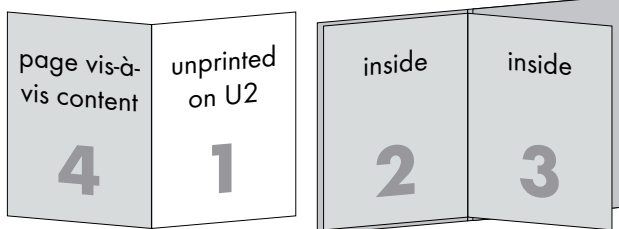
Spine width: The width of the spine depends on the type of binding.

For perfect binding: You can calculate the measurement for the spine on our website or ask us.

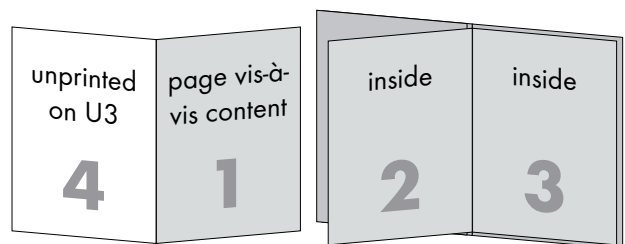
For thread-stitching: The measurement for the spine can be calculated after the contents has been sewn together, this is especially important with higher page count books. You can also discuss a method with us. When it doesn't need to be so exactly formatted, then simply add a couple millimeters to the width and orient the measurement with that of the perfect bind spine, with a factor of 1.25. Please note that these are approximate values.

Printed endsheets: In principle, endsheets can be the same type of paper as the contents of a book, as long as the final format of the closed book is no larger than A4 in height. If the endsheets are to be printed upon, take note that the opposite side (the side of the 4-sided page that will be glued to the book cover) can only be printed on one side. When one formats the endsheet as a folded card then the endsheet side to be glued is on page 1 and on the back endsheet on page 4.

Endsheet front



Endsheet back



## PDF Export

### General

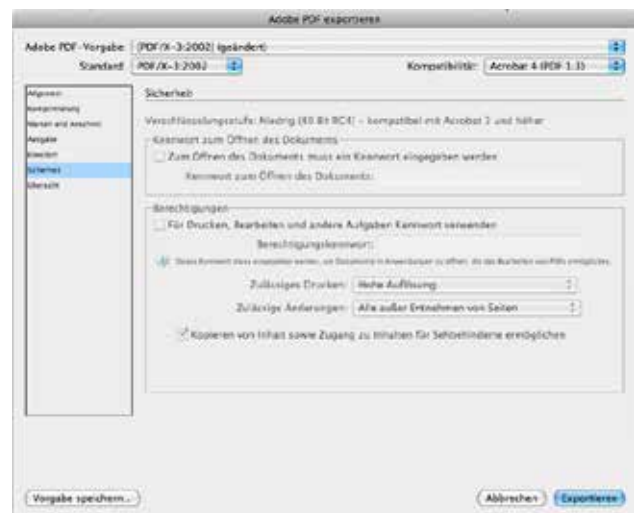
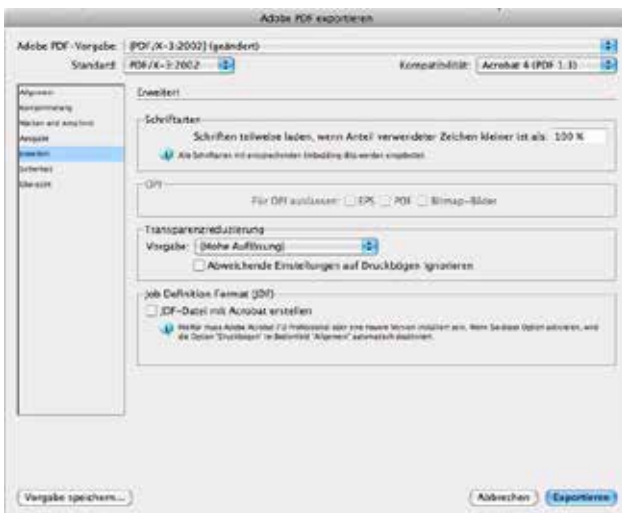
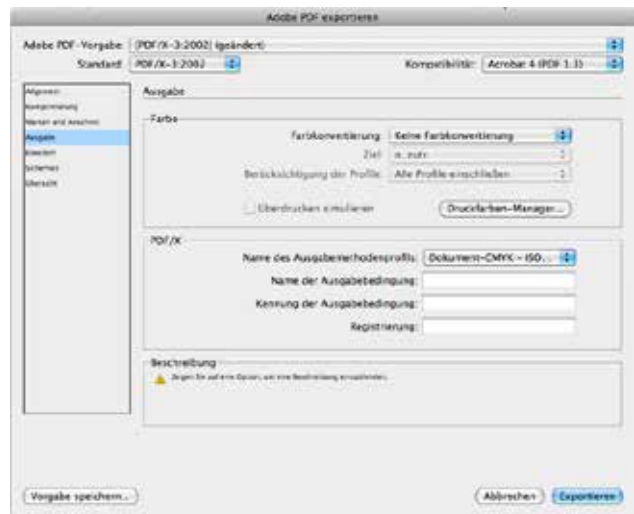
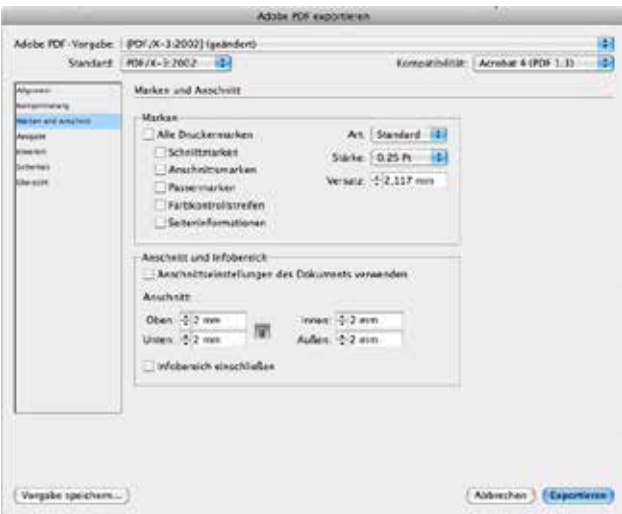
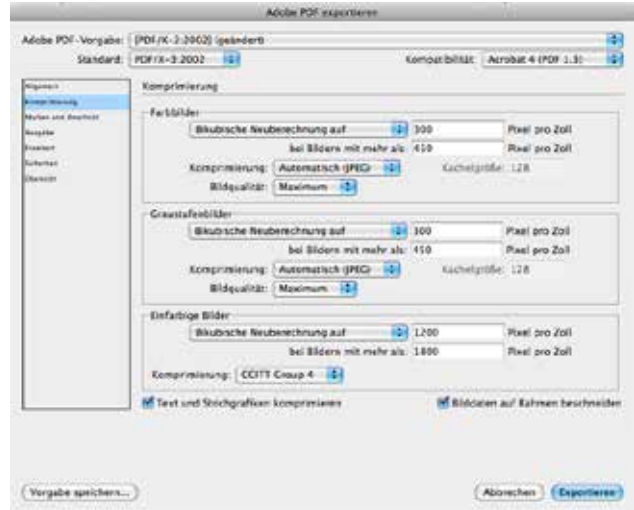
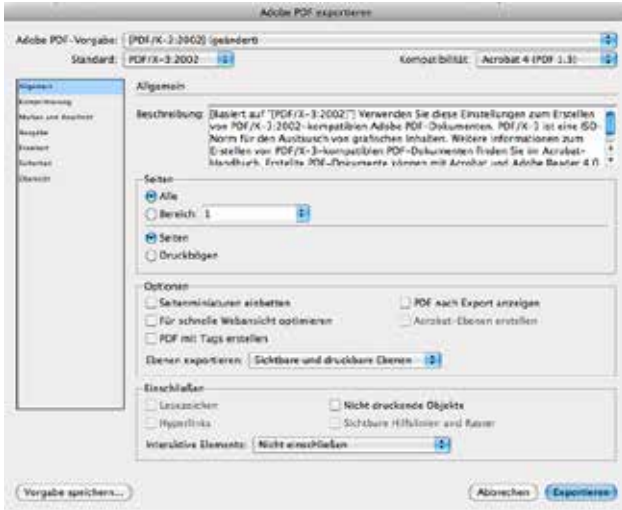
The most secure way to send a file is with a PDF format. In principle all program files can be saved as a PDF. Use the Job Option in export or distill the file in Acrobat Distiller with the PDF-X/3 setting, this will help minimize most text and file problems. The only extra setting in Job Option that is missing is for the bleed cut, which can be manually set.

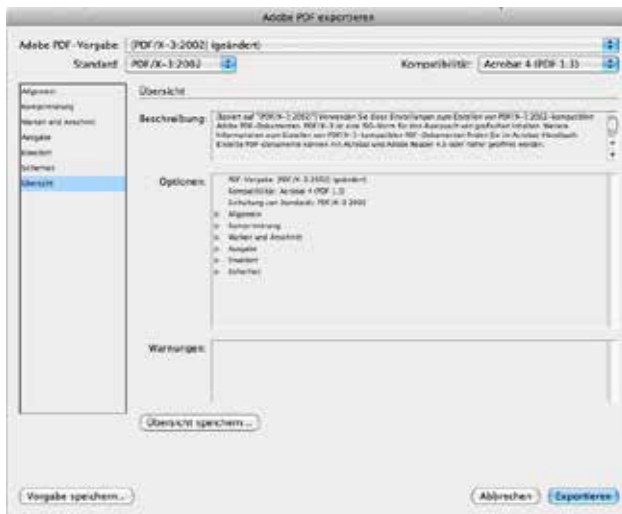
### Color Management When Exporting

Color management does not begin with exporting. Take note of the correct profile of the images loaded as well as of the embedded PDF files. Check the unwanted settings in the color management settings in InDesign.

The color management for the layout file is carried out when exporting.

In the following 7 screenshots there should be shown general export settings for your InDesign document. Should you have further questions, please don't be afraid to ask.





## Die-Cuts and Plot-Outlines

### Die-Cuts

In order to create a die-cut form we need a Print-PDF in addition to a 100% fulltone color outline that is not found in the print. The special color can gladly be named 'Die-Cut' or something similar.

The outline can be transferred as an extra PDF or added in the print document. When embedding in the Print-PDF please take note that the die-cut will be overprinted, otherwise there will be white lines behind the die-cut that will be visible in the print.

When your die-cut incorporates different die-cut methods (creasing, cutting, perforation) then assign a different special color to each method. Name them clearly in the document or in the contract, for example: Pantone Red: Crease, Pantone Blue: Die-Cut.

### Contour Cut

The information for die-cutting is also valid for contour cuts. Creasing and perforation is not possible here.

## Personalization / Numeration

### For personalization we require

- a spreadsheet with all input variables (as Excel or OpenOffice spreadsheet)
- an example PDF that shows which information should go where in the print.
- a print PDF (or an open InDesign document) from which the variables will be used.
- exact settings of the text that is used (font, style, size)
- the text (does not matter if the print file is a PDF or is open)

## Databank

Each variable is in its own column: Name, Last Name, Street, House Number, Zip Code, City and if relevant a picture. Otherwise the spreadsheet is unformatted. To avoid unsightly holes in text delete all spaces before and after a text block. Even empty fields should be completely empty without any punctuation or spaces. For personalization with images the relevant file name should appear in the appropriate column.

The same information applies to numeration. The spread must have the relevant number cycle, which is different from standard personalization.

Should you be unsure or if it is your first time creating a data bank, we are available to contact by telephone or E-mail (in this case, if you have any doubts, feel free to attach an in progress XLS spreadsheet).

## Print Files

The print PDF should meet all the requirements of a standard printable PDF. The example PDF to view the variables of the data bank can be set at a low resolution.

Should you send an open InDesign file the same requirements apply as in open print files for unpersonalized production.

## Tips for Spreadsheets

- The spreadsheet should not be formatted!
- No line breaks in cells (see Fig. 1)
- No line breaks, no connected cells inside of the spread sheet (see Fig. 2)
- Do not send the spreadsheet as a list (see Fig. 3)

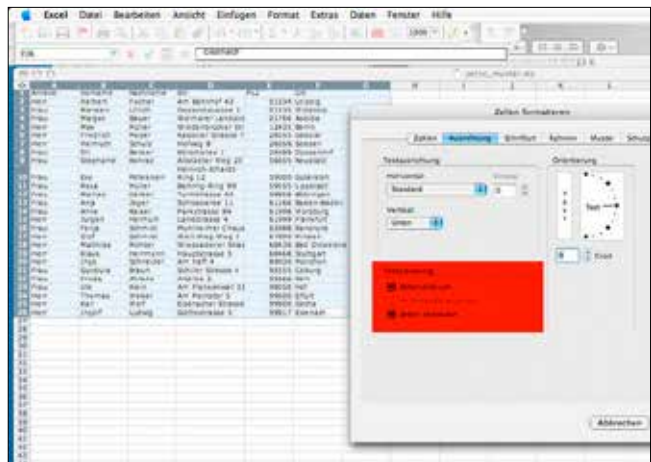


Fig 1

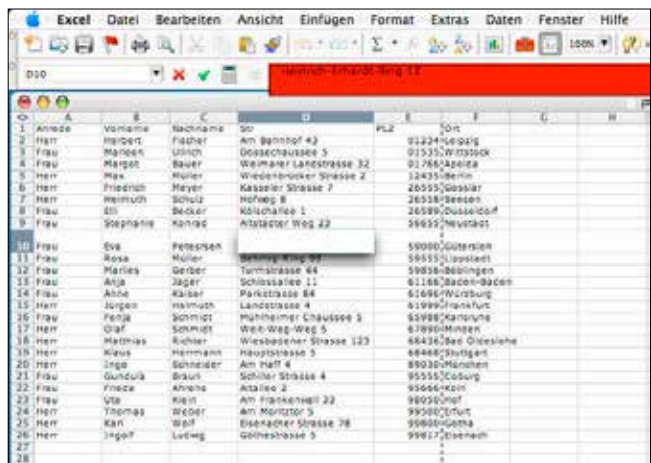


Fig 2

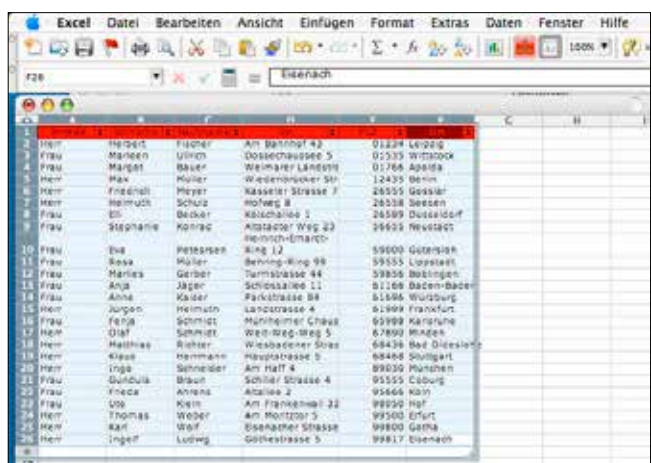


Fig 3

Should you have a complicated personalization as text variables or a few changed images then please contact us by telephone or email, because in this case data bank formatting can be more demanding. Ideally, you can send us a data bank record (as XLS) and an example template, so we can do something directly with your file.

## **Correct File Preparation for Proofs**

### ***Export requirements***

When exporting files (in the case of PDFs) for proofs it should always be taken into consideration to export them exactly how they will be exported when saving to print. Take extra note of the same profile.

### ***Scaling***

When you make images for a proof smaller, to get the most out of the smallest area, you should expect color shifts due to differing grid distributions. It is suggested to crop important portions of the image and leave them in their original size. Avoid scaling.

## **Special Color Printing with the HP-Indigo (White and Pantone)**

### ***Available colors***

Other than the 4 special Indigo colors (white, green, orange, violet) there is a large selection of Pantone colors. Because not all of them are available, speak to us beforehand about your preferred choice. Unavailable are generally metallic and neon colors as well as 112 colors from the Pantone Graphic System year 2016 catalogue.

### ***How to Prepare Special Colors for the HP-Indigo***

If you are working with a vector graphic, simply set the relevant motif in with the appropriate color library. When using Indigo specific colors please name them accordingly (white, green, orange or violet). Please note that white can only be printed as a full tone (100%) and cannot be toned down. If you would like to print rasterized images (pixelated) in a special color, ask us about the specific color as we cannot in this stage access the color names.