

## Working with the Adobe CS suite

# DTP «Desktop Publishing» : follow the Repro guideline

All details on  
[repro.epfl.ch](http://repro.epfl.ch)

Remark : all underlined [blue](#) text in this PDF manual are clickable hyperlinks with which you can access important information directly (contact persons, downloads, etc...)

## Working with the Adobe CS suite

# DTP : follow the Repro guideline



## Basic advice for successfully printing

### 1. Harmonisation and according colors

#### Setting up and synchronising the software

The settings to apply are :

**Europe Prepress 3** = the CMYK profile «Coated FOGRA 39...»

The procedures for setup and synchronisation are illustrated on [page 3](#)

### 2. Provide a PDF correctly formatted for the Repro :

Are your document's pages in a raw format or with « bleed » ?

The formatting of the 2 types of pages PDFs are described on [page 4](#) and [page 6](#)

### 3. Cover pages included in the file or provided separately ?

The different cover cases according to the binding type are described on [page 5](#)

### 4. Export the final PDF for the Repro

Select the setting **PDFX-Ready\_X4-Digital**

The export settings and parameters are described on [page 6](#)

### 5. Verify the color separations with «Separations Preview»

To verify the colors (especially for the pages that should contain only black / grayscale), as well as the compliance of your files.

Follow the usage advice on [page 7](#)

## Technical advice for going further

### InDesign or Illustrator: which software for what usage ?

For optimal work, choose the « correct » software ! [page 9](#)

Some technical advice for Illustrator [page 9](#)

### Resizing and image treatment

Ideally, save a copy «sized to measure», according to the description on [page 10](#)

### Convert RGB colors > into CMYK colors

#### Importing images: the compatible file formats for DTP

The treatment of bitmap-pixel images with Photoshop is detailed on [page 10](#)

The filetypes of images with Photoshop are detailed on [page 11](#)

### Usage of the « correct black » / Convert Spot Color (Pantone®) into CMYK

To avoid unpredictable results (the RIPs aren't always capable of reproducing these tints) it is advisable to convert them into CMYK. Follow the advice on [page 12](#)

### Incompatible fonts

Use only default system fonts or professional fonts [page 13](#)

## Harmonisation and according colors

# 1. Setup and synchronise your software

Identical method for all 3 softwares! Accessible via the menu : **Edit > Color Settings... > Settings : «Europe Prepress 3»**

### Indesign - Illustrator - Photoshop

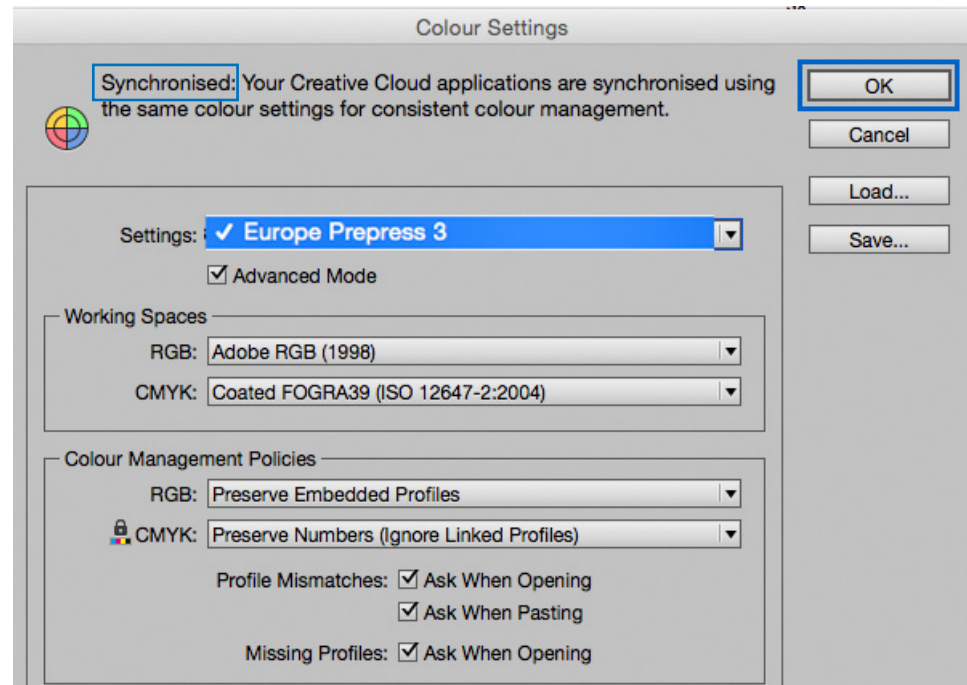
Setup the 3 applications as follows



For each of the 3 applications, you can access the parameter settings under :

**Edit > Couolor Settings... > Setting : Europe Prepress 3**

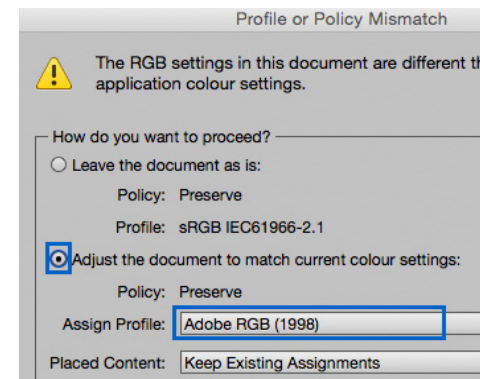
Once you have setup all applications, the dialogue window should signal you that all applications in your Suite are now **Synchronized**



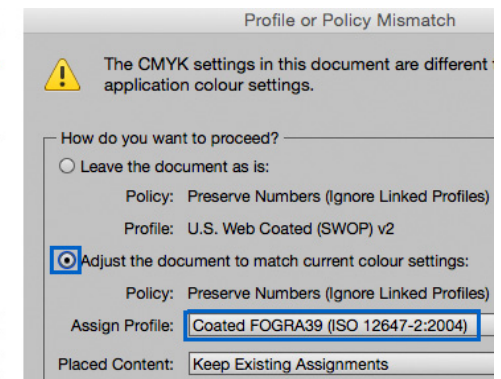
### Indesign - Illustrator - Photoshop

Once the settings are synchronized, setup correctly the re-opening of your documents

So that your previously created documents take the new profiles into account

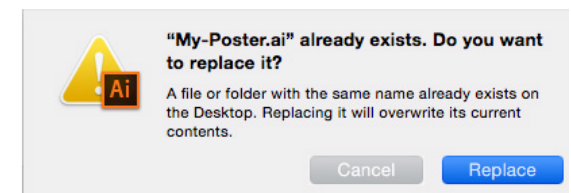
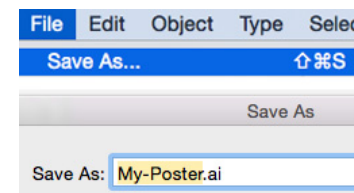


First adjust the RGB settings :  
**Adobe RGB (1998)**



Secondly adjust the CMYK settings :  
**Coated FOGRA 39 (ISO...)**

**Specific to Illustrator:** to assure that the profile is included (known problem) it is preferable to "overwrite" your old documents rather than save them



Indesign and Illustrator - Provide a PDF correctly formatted for the Repro

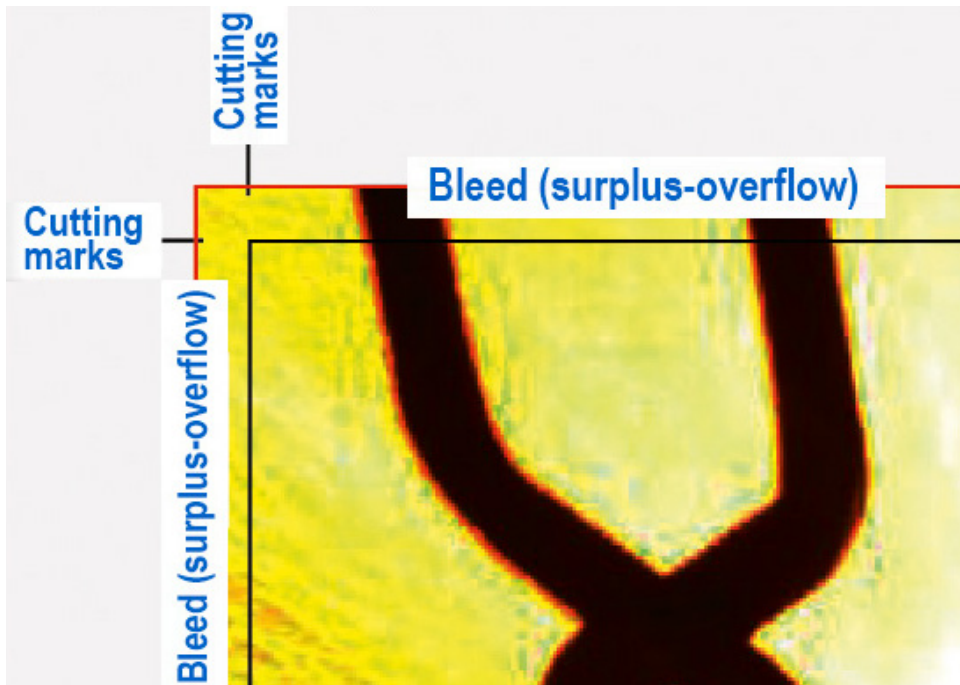
## 2. Attention to images and backgrounds freeboard = bleed



### Freeboard or « Bleed »

What we understand as freeboard, is that you must declare the « **bleed** » (surplus-overflow), because a printing and paper supplement is needed during printing, so that the work comes out successfully. This supplement on the edge -of the 4 sides- avoid thus the appearance of a white border after the cut

In general, this supplementary surface is **3 mm**; it has to be declared **on the 4 sides** !  
Your images and backgrounds are thus placed 3 mm out from the finished format

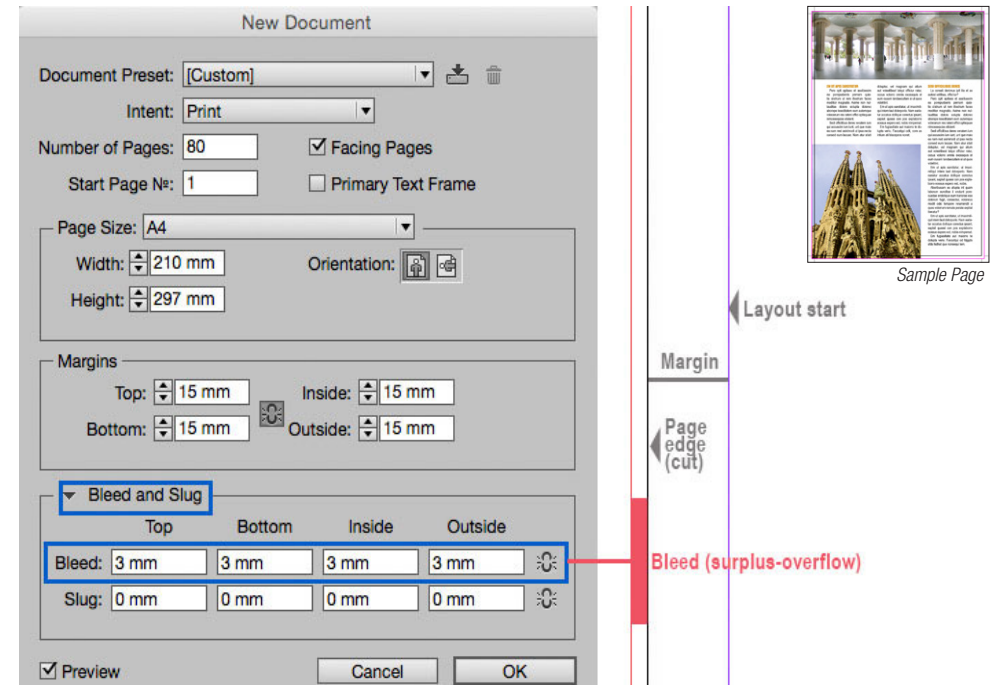


### Declare the «bleed» upon opening a document

You will find these settings when creating a new document, at the bottom of the **Document Setup** window of InDesign or Illustrator : **Bleed** and Slug

These settings can also be declared afterwards, you can access them via the menu : **File > Document Setup...**

NB: in older versions of InDesign or Illustrator, the settings are not directly visible, click on **More Options** to make them appear

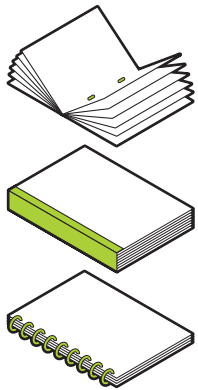


InDesign and Illustrator -Provide a PDF correctly formatted for the Repro

### 3. The different types of covers according to the type of binding

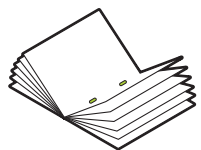


#### The case where the cover pages are included in the same file



##### Your whole document is printed on the same paper thickness

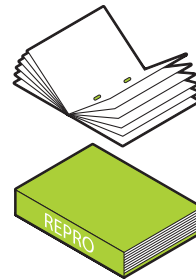
For the cases of binding type : **saddle-stitching** (booklet-brochure), **tape bound** (adhesive tape) and **wire bound** (metal rings), where your document should be printed on the same weight of paper, **provide us a PDF with all pages following correctly in the same file**



##### The internal pages are printed on standard paper, and the cover pages on thick paper

For the case of **saddle-stitching** (booklet-brochure) binding, with the sole condition that the face of your exterior cover pages (first page and last page) shouldn't be connected to each other (no continuity) you can also **provide us with a PDF with all pages following correctly in the same file**

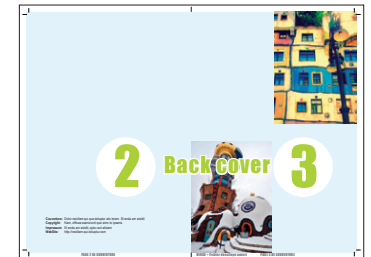
#### The case where the cover pages are provided in a separate file



##### The internal pages are printed on normal paper, and the cover pages on thick paper

In case of **saddle-stitching** (booklet-brochure), or **perfect bound** (with wrap-around cover) binding, where your exterior cover pages (one side > first page and last page) are supposed to be attached (continuity, traversing images, etc.) or if a title should be printed on the spine; you should develop the pages and put them together side-by-side in one file and **provide us with the PDF separately**

#### Cover example for a saddle-stitching binding



#### Wrap-around cover example (with spine) for a perfect bound binding





## Providing a compliant PDF for printing

# 4. Export your PDF for the Repro



## Select the setting «PDFX-ready\_X4-Digital»

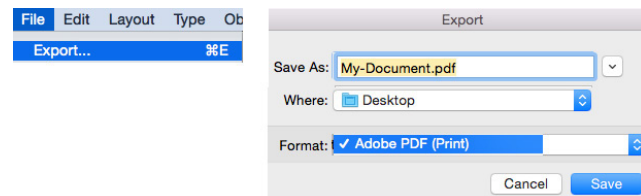
Based on the idea that you have [downloaded the .ZIP and installed](#) the setting provided by the Repro **PDFX-Ready\_X4.joboptions**, you can now start the PDF export process

**File > Export** (Illustrator : File > Save as... Adobe PDF)

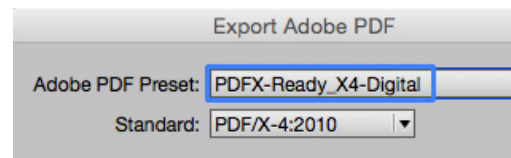
Select **Adobe PDF (Print)**

Save as **Name-your-document.pdf**

Click on the **Save** button



The Export dialogue window opens under «Adobe Preset...» Select **PDFX-Ready\_X4-Digital**



Since everything has been pre-setup, you don't have to configure anything, unless your document contains images and/or overflowing backgrounds. If this is the case, access the menu on the left «Marks and bleeds» : click on «Crop Marks», and enter 3 mm of «Bleed» on the 4 side. For more details [see the summary image on the right](#)

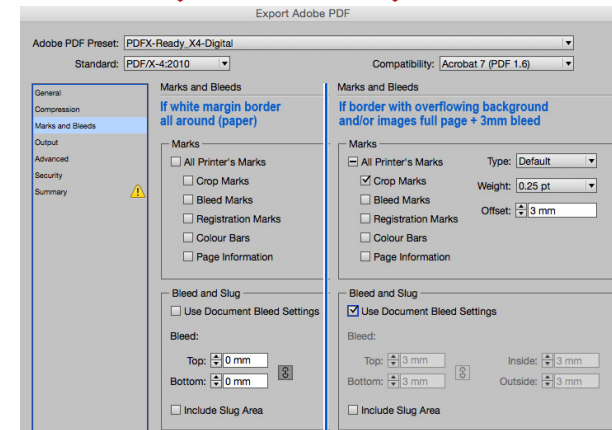
Everything is OK? you can now click the **Export** button, the creation of your PDF happens in the background

## Raw format

If your document **contains no background or overflowing images** (white margins around), provide as **mono-page PDF** as-is, without bleed, and without crop marks

## Format with «Bleed»

If your document **contains backgrounds or/and overflowing images**, provide a **mono-page PDF** with 3 mm of «Bleed» on 4 sides and «Crop Marks»



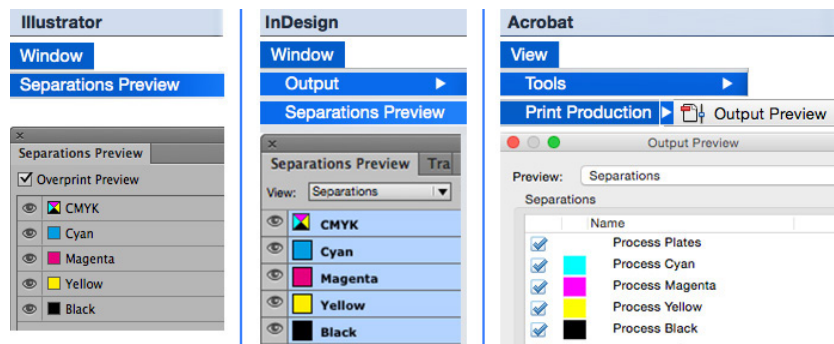
## Indesign, Illustrator and Acrobat Pro

# 5. Verify the color separations with «Separations Preview»



### «Separations Preview»: the useful control box

The separations control box «Separations Preview (or Output Preview)» exists in the three principal applications (Illustrator, InDesign and Acrobat Pro). You will find it useful in multiple moments of your work. According to the application used, you can find it here :



### Pages printed in «real» black

You wish to print a mixed document (color and black/grayscale)? It shall be printed on a color press. Be aware that pages printed solely in black can costs up to 8 times less, with the sole condition that all objects (text, images, etc..) placed on the page are **solely present in the «Black» layer**. As you can understand, it is important to optimize your document natively to obtain a lower billing cost per printed page.

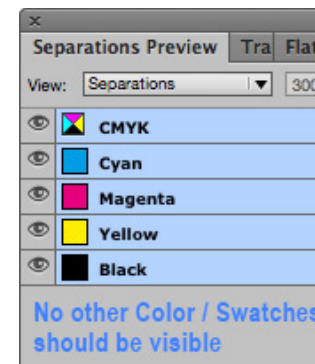
**How to verify this ?**: When you **uncheck «Black»**, the images and text shouldn't appear = empty page! This means the other colors/inks (CMY) won't be used and that «everything» is indeed and only in black ink.

If you keep getting errors, review your page layout to correct them: imported images have to be pre-treated to «GrayScale» and text should be colored with **[Black]**.

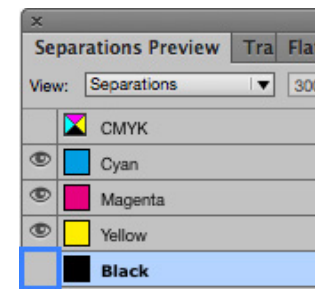
Attention: even a small colored point practically invisible to the eye means your page will be billed in color.

### Only CMYK values should be present

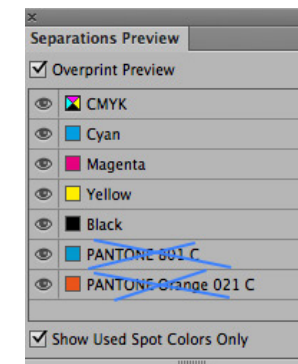
As explained on the previous page, all «Spot Colors» or all other nuances should be converted to CMYK, finally they should therefore all be in the 4 CMYK layers, to be verified as below



**CORRECT**



**Verify your black print destined pages by unchecking the «Black»**, the images and text shouldn't appear = empty page!



**FALSE:** the «Pantone®» (spot colors) haven't been converted, return to your page layout software to correct them

**Working with the Adobe CS Suite**

**Technical advice to go further**



For optimal work, choose the « correct » application !

## Indesign vs Illustrator What software for what usage ?

### Id INDESIGN

Since it handles multiple pages, **INDESIGN** is the most adequate **layout software** it is thus useful to use for the majority of your productions.

It can be used just as well for the **creation of long documents** (portfolios, books, etc.) as for simple posters, cards, fold-outs, etc.

Importing and assembling all types of objects aren't a problem for it.

It is also the fastest and most optimal software; and even more it possesses functions and tools that are more practical and accessible for non-professionals than Illustrator

### Ai ILLUSTRATOR

Since **ILLUSTRATOR** is a **mono-page**, application, is not very fast and «heavy» in usage (it is greedy in physical ressources), we recommend to only use it for **vector based tasks** (creations, mainly graphics and drawings, perhaps for posters).

It is the ideal applications for **corrections and optimisation of drawings** coming from exotic software (PDF exported from AutoCad, Vector Works, Rhino, etc...).

When constructing your documents, you should be aware of the Illustrators unfriendly (thus unproductive) behaviors: the intermediary saving phases, image importing and constant zooming, we thus prefer InDesign in the majority of cases

## Technical Advice Illustrator Usage for DTP



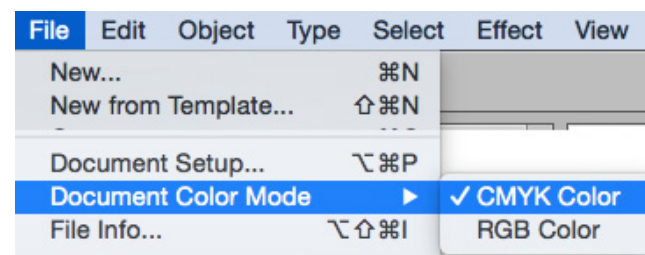
### Attention for the 2 color modes

Illustrator is capable of functioning in 2 color modes (RGB and CMYK).

For DTP the **correct norm is CMYK**, as the RGB mode is reserved for web.

Upon creating a new document, please check that the CMYK colour mode is active. To check this in an existing file, see :

**File > Document Color Mode > CMYK Color**

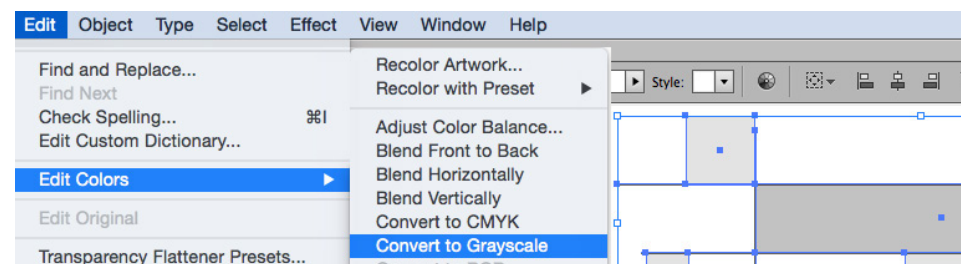


### «Exotic» PDF optimisation

You must correct and optimise PDFs (or .dxf/.dwg) produced by VectorWorks, ArchiCad, Rhino, etc.; to make them compatible with DTP, to then be able to import them correctly.

The minimum corrections to make are :

1. **convert the file into CMYK** (natively they are in RGB mode) and
2. **convert the objects** that merit it into **Grayscale**



## Working with Photoshop - Image treatment

# Resize your original images to have a final print size of 100%



## Save a «tailored» copy

The base rule is to avoid importing your master files/ or original images (JPG photos, scan, .PSD, etc...) as-is in to your document!

Ideally, save a "tailored" copy, that is: optimised for the container block of your publishing software, where it will be imported into.

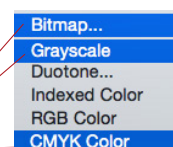
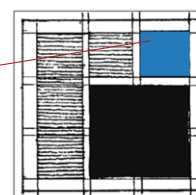
A bitmap image is characterised by its resolution, expressed in numbers of Pixels-Inch (DPI). Upon importing into a publication (InDesign or Illustrator), your image/master-original file is placed and reduced as-is without optimisation, the final file will be uselessly blown up with superfluous pixels.

To conclude, optimising the correct resolution with respect to the planned output device (digital printer) avoids blowing up the files, accelerates the work on the screen and the final printing of the files.

## How to proceed ?

Before resizing your image, you must know the following 3 settings:

- 1. The final image size in cm**, which is determined by the size of the «container» block intended to contain the import (at 100%) in the publication software
- 2. The resolution in PP (120 or 200 DPI?) to which the image will be «cut»**, which is determined by the type of printer on which the final document is planned to be printed (Inkjet - poster = 120 PP, Digital laser A4, A3 = 200 PP)
- 3. The color mode specific to each image type**, to be able to import them later in the right mode (CMYK, GrayScale, Bitmap-1bit) in you publication



## Table of valid resolutions for resizing at 100%

The table below proposes the resolutions to use according to your document type destined for either of the two most common type of printers:

**Inkjet:** for large size poster = **120 DPI / Pixels-Inch**

**Digital laser:** for A4 or A3 prints = **200 DPI / Pixels-Inch**

**Offset** - process reserved for very large quantities (over 1000) for A4 or A3 prints = **300 DPI**

Optimising resolution for printing device type	Image mode: Color CMYK	Image mode: Grayscale	Image mode: Bitmap (1 bit)
<b>Inkjet printer</b> (wide format/poster)	120 DPI/Pix.Inch	120 DPI/Pix.Inch	600 DPI/Pix.Inch
<b>Digital laser printer</b> (A4/A3)	200 DPI/Pix.Inch	200 DPI/Pix.Inch	1200 DPI/Pix.Inch

NB: if you are not sure of the final size, you can provide an extra reserve (surplus in cm) in case you need to resize or enlarge your image afterwards

## Saving your images

Once your images are resized and optionally retouched select in the menu:

File > **Save as ...** (since it will be a copy)

The format for the 3 image modes is **.TIF**

The compression type is **LZW** (since it is non-destructive)  
For images in CMYK colors, verify that the «**Coated FOGRA 39**» profile is included

For images in gray scale, verify that the «**Dot gain 15%**» profile is included

These operations are summarised in images on the next page

## Working with Photoshop - Finalising images to import and saving types compatible for DTP

# Summary of optimisation operations for all image types

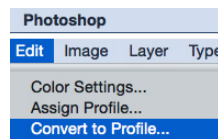


### Converting RGB colors > in CMYK colors

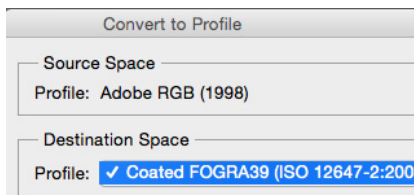
The RGB colour mode is the color gamut visible on screens (computer, TV, etc...) This mode isn't compatible with print because it is hard to reproduce. **The compatible mode for printing on paper is CMYK** that represents the 4 base inks (Cyan, Magenta, Yellow, Black) used by printers; reason why it is preferable (read mandatory) to convert your RGB images into CMYK before starting your publication

### To convert you images correctly into CMYK and GrayScale

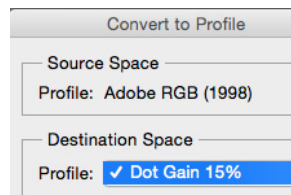
Rather than using the standard converting function «Image > Mode», use the professional method which consists of using **Edit > Convert to Profile...** since it offers a higher guarantee of applying the profile correctly



Adobe RGB (1998) to CMYK  
(Coated FOGRA 39) conversion

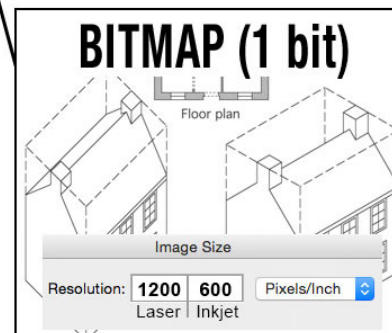


Adobe RGB (1998) to GrayScale  
(Dot Gain 15%) conversion

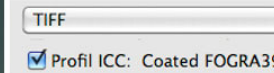


**TYPICAL IMAGE**  
*Intended to be imported at 100% size*

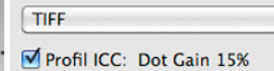
**Optimal resolution according to color mode and printer type**



Save as ...



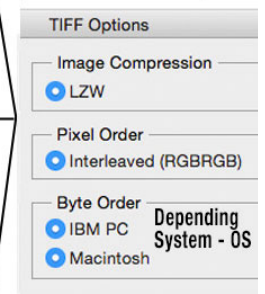
Save as ...



Save as ...



**.TIF options (second window)**



**The .PSD format is also compatible.** However, it should only be used as last backup, with the condition that it is important to you to modify your images during the process

## Swatching Indesign and Illustrator

### Using the «right Black»

### Convert Spot Color (Pantone®) into Process Color > CMYK



#### Coloring texts and objects only with the color [Black]

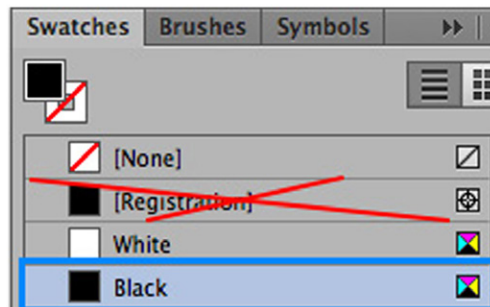
To color texts or objects, **only use the color [Black]**.

To avoid any incompatibilities, **NEVER click on the color [Registration]**

The color [Repérage] is the addition of the 4 CMYK colors (400% inking), it is only used in rare cases and only for offset printing (starting at 1000 ex.), and their usage requires the knowhow of an experienced person.



**Only use the color [Black]**  
**Never click on [Registration]**

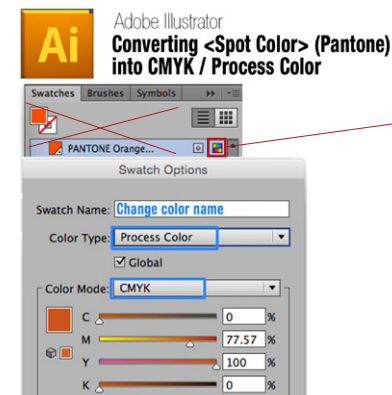


#### Converting the «Spot Color» into CMYK

The colors that are selectable throughout the swatch library such as the «Spot Color» (for ex Pantone®) generally give an unpredictable result when printing. They are reserved for offset printing (starting at 1000 ex.) with dedicated inks, and their usage requires the knowhow of an experienced person.

For traditional prints (inkjet or digital laser), the safest method is to **convert into CMYK** before saving the final PDF for the print.

#### Conversion method with Illustrator



Two possible methods :

- as shown on the left, you can click on the small circle at the bottom of the swatch (in the box «Color»), which converts the tone directly into CMYK...

- or
- in «Swatches» you can double click the circle of the direct tone, which then accesses the options dialogue box, you then only need to select like the example in InDesign :

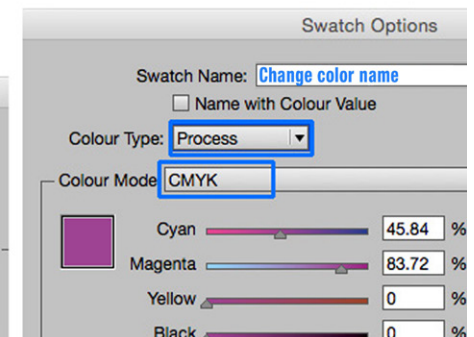
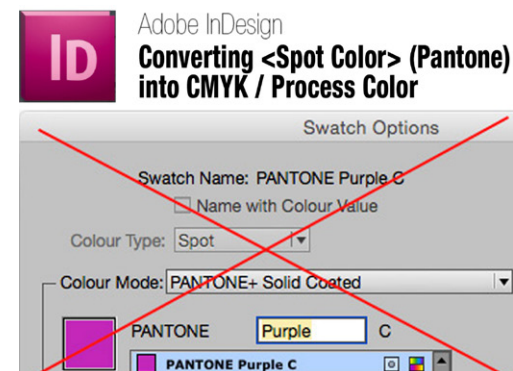
**Color Mode > CMJN**

**Color Type > Process Color**

#### Conversion method with Indesign

In «Swatches» you can double click the circle of the Spot Color, which then accesses the option dialogue box, you then only need to select as below :

**Colour Mode > CMYK** and **Colour Type > Process**



## Indesign and Illustrator Incompatible fonts



### Avoid free downloaded fonts !

**Only use professional or standard fonts from your operating system.**

Attention, free fonts downloaded from sites like “DaFont” can provoke corruptions that might block printing your PDFs. To avoid any problems: only use common or system fonts.

**If you nonetheless decide to use these types of fonts**, you must vectorise them before generating the final PDF (NB: keep your natif .Ai or .INDD non-vectorised file for later modifications).

**How to proceed ?** (All objects and layers need to be unlocked)

Select the block of text with the «black arrow» tool

Menu > **Type > Create Outlines**

