Sony DADC

Reference Book
Tips for creating graphic files

July 2019 - Version 04

Version	Date	Details of change	Issued by	Approved by
001	September 2010	First edition	ALOS	AHEC
002	March 2012	Correction ink coverage and overprint settings	ALOS	AHEC
003	August 2017	New ICC profile	EERH	AHEC
004	July 2019	Change to new CI	CRAI	AHEC

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I. Specifications

The different press plants have different disc- and packaging styles and different specifications for their products. Measurements of these specifications must be considered when doing your layout. Otherwise unwanted costs for file correction will occur.

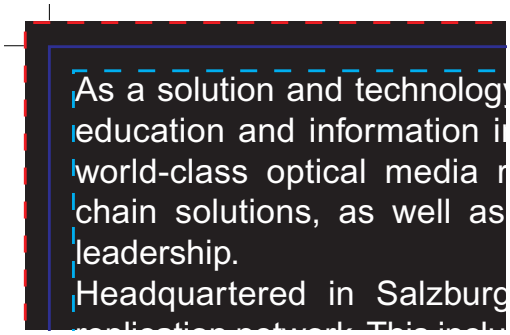
On our template database you will find templates (.pdf and .eps format) for many different products. All Sony DADC templates are 1:1 and include design and bleed area, cutting and folding marks and more specific information. For the label print, we use, if desired by customer (in most cases it is recommended), a white base. For this we have existing films with various specific cutouts. When you do the disc layout, take the barcodering and the centre-hole in account, but do not knock them out of your design.

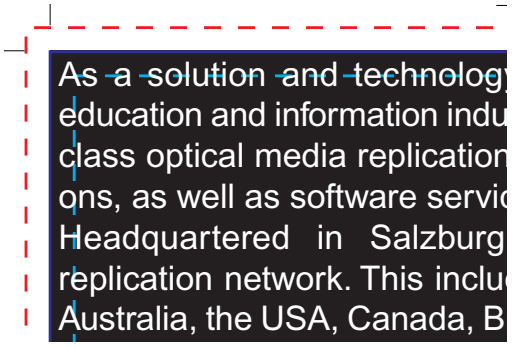
II. Bleed, cutting tolerance and cutting marks

Please ensure that a 3 mm bleed is used, if you want the images to go right to the edge of the page in your packaging design. Otherwise a white line may be visible after the cutting. A possible minor movement of the paper during the cutting calls for this 3 mm tolerance. Graphic and text elements should not be placed too close to the cutting line (cutting line - dark blue in the template). Ideally you have a 3 mm distance to the inner side (image 1: design area - light blue dotted line in the template). There is also a risk, that these elements are cut or cut off (image 2). Cutting marks have to be specified on each artwork, in order to define the net paper format. These marks are essential for the printer.

Image 1: correct

Image 2: incorrect





III. Ink-coverage

Cyan, Magenta, Yellow and Black printed on top of each other in 100% solids, gives you an ink-coverage of 400%. This is requested for the cutting and the register marks, but not for the text, logos, areas and pictures. An ink-coverage of 350% should not be exceeded. Areas underneath a light text and underneath the logos should not exceed to an ink-coverage of 280-300%. This can lead to the following problems: the ink does not dry on paper = ink is setting off underneath the next printed sheet and it therefore smears the design; the paper expands = register problems appear; the printer has to reduce the color on the printing machine = alters colour setup. This problem is very serious when printing larger areas of solids and images. Files with an higher ink-coverage will be claimed by us via screenshots (image 3 + 4), in which the affected parts are colored in e.g. green.

Image 3

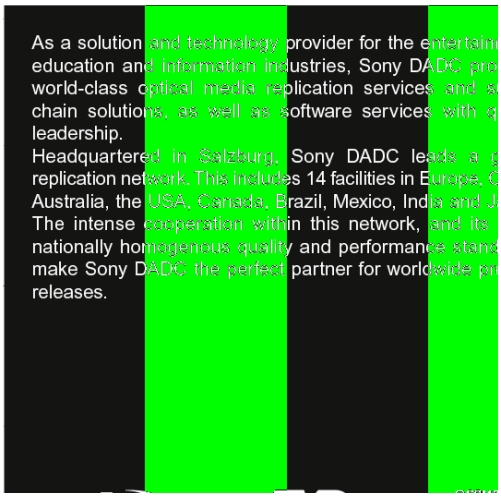
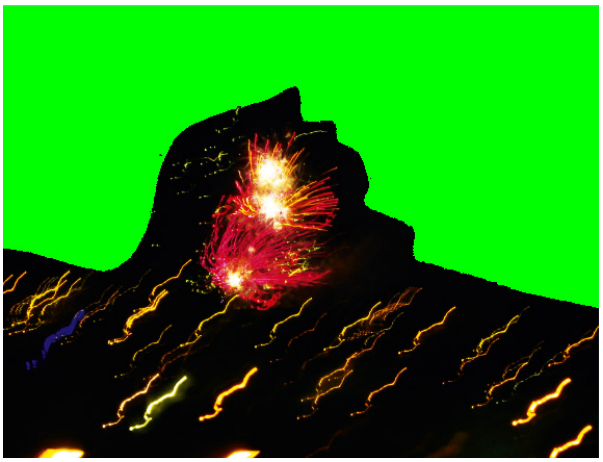


Image 4



IV. Register problems

If a small text, an EAN Code or a logo is defined as 4 color black, or in another 4 color composition, there can be register problems during the print. The 4 color black element differ from the 100% black elements. They appear either thicker (image 5) and a little bit bleary, there is also the possibility for the so called register impreciseness (image 6). Always the first line in the example is colored incorrect.

Image 5

As a solution and technology provider for the entertainment, education and information industries,
Sony DADC provides world-class optical media replication services and supply chain solutions,
as well as software services with quality leadership.

As a solution and technology provider for the entertai
Sony DADC provides world-class optical media replica
as well as software services with quality leadership.

Image 6,

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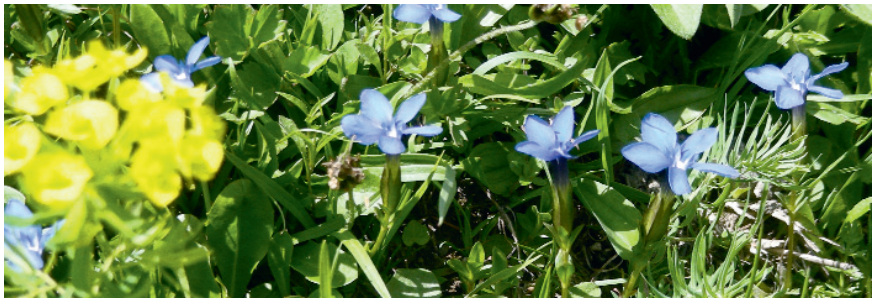
V. Colors

The colors that should be used in offset- or screenprint are CMYK (image 8) or special colors (Pantone and HKS). If we have to convert the special colors - RBG (image 7) or LAB - to CMYK, the color tone can change.
Charges occur and the possibility of a not desired abnormal color arises.

Image 7: RGB

Image 8: CMYK



VI. Vector graphics vs. pixel graphics

Vector graphics (image 9) are a way of administration of the graphic data through mathematically functions. An element consists of mathematical described curves and lines. One line is described by 2 dots, a circle by the coordinates of the centre and its radius etc. Texts and logos should be applied as vector graphics. In that case a clean ending line is guaranteed.

Pixel graphics (image 10) are a way of administration of graphic data as single dots. An image consists of single image dots. Every single image dot can be controlled and manipulated separately. The pixel graphic is adequate for images, but not for texts and logos, as they then these appear blurred due to the image dots.

Image 9: Vector graphic

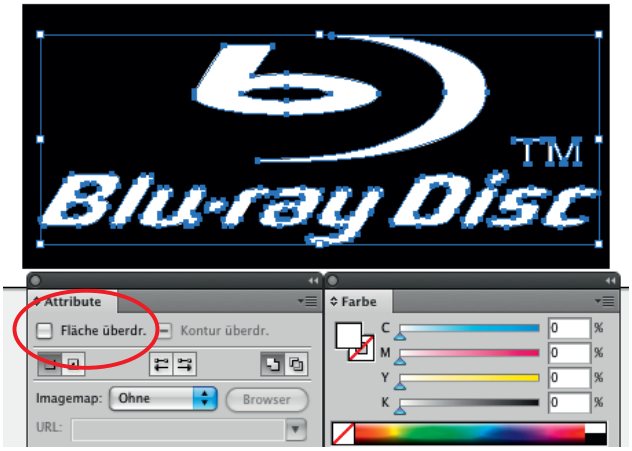
Image 10: Pixel graphic

VII. Overprint - omit

Black texts and logos should generally be set to „over print“ to avoid a register problem (image 11). White texts and logos have to be set to “omit”. White is not a printing color, the paper shines through on these parts. If the white elements are set to “over print”, they “disappear” during the print (image 12).
There can be color differences with elements having of the wrong over print settings with the process colors. Sony DADC is not responsible for such errors!

Image 11: VSetup in Adobe Illustrator

Image 12: Set up in Adobe Illustrator

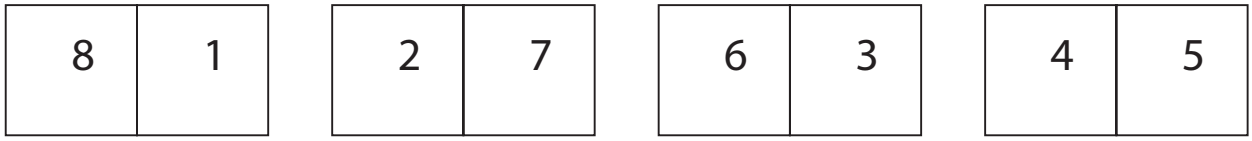


VIII. Page sequence

Booklet pages must either be single pages in correct order (image 13) or printer pairs (image 14). Important is also, that the page sequence is clear. If the document does not have any pagination, the page sequence has to be written outside of the printing area.

Image 13: Single pages for booklet with 8 pages

Image 14: Printer pairs for a booklet with 8 pages



IX. OPI information

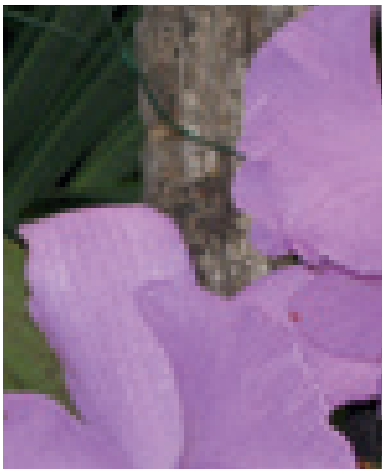
The abbreviation „OPI“ stands for „Open Prepress Interface“, an universal interface, which is used in the pre-stage of the print. When using this interface, the so called OPI-server will be used. These servers consist of powerful processors, which calculate a high resolution image (necessary for printing) into a low resolution, to enable a smooth workflow with this copy of the image. The image is provided to all work processors in a network and is also used for a check prints. During the actual printing process the low-grade copy of the image is then replaced again with the original image. This only happens, if these servers are directly connected to the computer, from which the outlay is made. To avoid quality losses, the OPI information shall not be saved with the high resolution PDF.

X. Image resolution

"DPI" is an abbreviation for "dots per inch" and states, how many image dots an inch of an image contains or should contain, whereas one inch is 2,54 cm. With ascending numbers of dots the quality of the design and the data quantity needed for the design increases. The more image dots an image contains, the better it can display for example color devolution and color shades, without looking half-tone (with clear distinguishable color areas). Relative low values let the viewer see each single image dot of a picture. Extreme low values eliminate recognition of the motive of the picture. For a real great print, up to 600 dpi (image 15) are essential, whilst for pictures on the internet a value of 72 dpi (Image 16) is sufficient.

Image 15: 300dpi

Image 16: 72dpi



everything lower	bad
200 dpi	low
300 dpi	okay
450 dpi	good
600 dpi	perfect

XI. Achromatic set-up

Our recommendation for setting up levels of grey is, to use a preferably high black tone and only smaller ink-coverage of the other colors. Thereby you can reach a stable color tone for printing.
All images should be saved in levels of grey or they should contain at least as much black as the highest none black color tone. An exception is the offset print on the disc. It is not possible to print pure black areas in offset, as the color density is a lot lower than with the paper print. The result would be a greyish disc, the black would not be stable from the first to the last disc, as there is a high risk of the discs getting stripes. We recommend using our standard black C: 60%, M: 40%, Y: 40%, K: 100%, not suggested is the minimum requisition C: 60%, K: 100%. We would like to inform you, that wrong black tones can cause fatal problems with the printing and therefore a print order with wrong black tone can not be produced without quality loss.

XII. Font and line thickness

For Pantone print we need the following font and line thickness to guarantee readability:
negative (image 17): min. font point size 5 pt or min. line thickness of 0,15 mm
positive (image 18): min. Font point size 4 pt or min. line thickness 0,10 mm
You can find more detailed information on our website in the Label Manual PDF.

Image 17

min. Font Point Size: 5 Point

Linethickness min. 0,15mm

Image 18

min. Font Point Size: 4 Point

Linethickness min. 0,10mm

XIII. ICC profiles

ICC profiles (Color profiles) are standard sets of data which define attributes of the color-reproduction of any input- or output device (computer-display, printer, scanner etc.). The proper use of color management gives you an exact color reproduction on all input- and output devices (image 19).
The result of wrongly used color profiles is of rather unpredictable nature. ISO standard 12647-2:2013 with its related ICC profile "PSOcoated_v3.icc" is the standard in the print-industry for coating and delivers the best results for our products. Any other color profile will be removed by us, which again may affect the color (image 20).

Image 19: Picture the with correct color profile

mage 20: picture with a wrong color profile (after correction)

XIV. PDF creation

The export of the PDF from the applications should be used and is preferred by us.
More information and a detailed guide can be found on our website in our Reference Book PDF from InDesign.
PDF 1.4 or higher can be used.

XV. Fonts

When supplying source files, please add the fonts to the PDFs where they need to be completely embedded. This does not mean sending the text, we need the character set, which is used for the text. Color sets that are not available on a PC will be replaced by the system fonts without warning. With many graphic programs you can vectorize the fonts before the output. Please do only zip Macintosh fonts directly on the Mac. Do not transfer unzipped fonts over the internet.

XVI. Graphic data allocation

If we receive graphic data without any notice and/or without clear identification, to which order they belong, we can not find them or can not allocate the data to a relevant production. Thereby there is a risk of time loss. Please always inform your customer service responsible about the way of transfer, the file or the folder name. It is also very helpful, if you send the used template for the special product like a Slipcase or a Digipak, or the name of the file with the relevant file code.