Page Layout with Crop Marks

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Abstract

This package was developed as a typographers toolbox offering the most important features for everyday work. First it allows setting the paper size as well as the page layout. The next important feature is the ability of printing crop marks both with \TeX + dvips or (x)dvipdfm(x) and with pdf\TeX. Finally it is possible to reflect pages both horizontally and vertically, select black overprint and set various PDF/X features.

Contents

1 Introduction .................................................. 3
2 Installation .................................................. 4
3 Package dependence ......................................... 4
4 Usage ......................................................... 4
5 Option values ................................................ 5
6 Driver selection .............................................. 5
7 Paper size and orientation .................................... 5
  7.1 Orientation .............................................. 5
  7.2 Paper size ................................................ 5
    7.2.1 Generic paper size .................................. 6
    7.2.2 Standard paper sizes ................................ 6
  7.3 Page bounding boxes ...................................... 7
8 Page layout options ........................................... 7
  8.1 Margins .................................................. 7
    8.1.1 Option MARGINS, standard 0mm .................... 7
    8.1.2 Option TOPMARGIN, default 1in .................... 7
    8.1.3 Option BOTMARGIN, standard TOPMARGIN ........... 7
    8.1.4 Option LEFTMARGIN, default –1in .................. 7
    8.1.5 Option RIGHTMARGIN, default –1in ................ 8
  8.2 Text dimensions ......................................... 8
    8.2.1 Option TEXTWIDTH, default –1in .................. 8
    8.2.2 Option TEXTHEIGHT, default –1in ................. 8
    8.2.3 Option HEADHEIGHT, default 0mm .................. 8
    8.2.4 Option HEADSEP, default 0mm ...................... 8
    8.2.5 Option FOOTSKIP, default 0mm ..................... 8
    8.2.6 Option TOPSKIP, default \topskip ................ 8
    8.2.7 Option STRICTHEIGHT, default false, standard true .... 8
    8.2.8 Option ADJUSTFOOTSKIP, default true, standard true . 8
    8.2.9 Option ADJUSTHEADSEP, default true, standard true . 9
9 Calculation of missing dimensions
9.1 Calculation of the paper size
9.1.1 Paper height
9.1.2 Paper width
9.2 Calculation of page layout dimensions
9.2.1 Vertical dimensions
9.2.2 Horizontal dimensions
10 Page reflection
11 Crop marks
11.1 Basic crop marks options
11.1.1 Option ONLYCROPMARKS, default false, standard true
11.1.2 Option CROPMARKS, default false, standard true
11.1.3 Option NOCROPMARKS, default true, standard true
11.1.4 Option CROPLENGTH, default 5mm
11.1.5 Option CROPGAP, default 5mm
11.1.6 Option CROPFMFRAME, default false, standard true
11.1.7 Option NOCROPFRAME, default true, standard true
11.1.8 Option CROPSTYLE
11.1.9 Option CROPTITLE
11.1.10 Option CROPSEPARATOR
11.1.11 Option PAGENUMBERFIRST, default false, standard true
11.1.12 Option PAGENUMBERLAST, default true, standard true
11.1.13 Option USEPAGENUMBERS, default true, standard true
11.1.14 Option NOPAGENUMBERS, default false, standard true
11.1.15 Option NOBLEEDCLIP, default false, standard true
11.2 Options for the default style
11.2.1 Option SPINE
11.2.2 Option XSPINE
11.2.3 Option FLAP
11.2.4 Options TRIM, XTRIM, YTRIM
11.3 Options for the leaflet style
11.3.1 Option LEAFCOUNT, default 4
11.3.2 Option FOLDCORR, default 0mm
11.3.3 Option FOLD, default 2
12 Color support
12.1 Color support for cropmarks
12.2 CMYK colors
12.3 Overprinting support, default false, standard true
13 PDF information
13.1 PDF title
13.2 PDF author
13.3 PDF subject
13.4 PDF keywords
13.5 Option NOPDFINFO
14 PDF/X-1a compliance
14.1 Option PDFMINORVERSION
14.2 Option PDFX
14.3 Options OUTPUTCONDITION and OUTPUTCONDITIONIDENTIFIER, def-
14.4 Option ICCFILE
14.5 Font embedding
1 Introduction

Users will probably ask: “Why another page layout package? Is not GEOMETRY all what we need?” The answer to this question is not easy. The GEOMETRY package provides a lot of features, maybe even too many features. However, some features are missing. Packages for crop marks can also be found but correct positioning of the crop marks requires cooperation with the page layout package. It is therefore natural to integrate both these functions into a single package.

The package is useful also for preparation of book covers. It places the marks showing the position of a spine and optionally flaps. If you want to see whether the spine and the front and back cover contents are properly aligned, you can display the frames. Moreover, it is often necessary to create a proof of the cover while the book is not yet finished and the thickness of the spine is not known and can be only approximated. You can thus leave the paper width empty and the package will calculate it from the page width, the flap width and the spine thickness. Whenever the final value of the spine thickness is known, you change it in the list of options and the whole layout will adapt automatically.
The files usually fail to meet PDF/X conformance due to silly reasons. It is always mandatory to set the title, creation date and modification date in any PDF file. It can be done by the \texttt{hyperref} package. However, \texttt{hyperref} is a complex package that may cause clashes with other packages. We do not want to kill ants by cannon balls, therefore we do simple things by simple means. Options for partial PDF/X conformance were added but may be switched off if a user wishes to use \texttt{hyperref}.

The package is a result of a long-term development inspired by author’s everyday needs. It is a collection of macros that were manually copied from document to document, later placed into private packages and finally it matured into a package prepared for general use.

Being a result of development it may happen that you may be in the same situation in which I was myself. The book was finished and the last task was to add the crop marks. Removing layout definition from a document and replacing it with a different package may cause errors and one more proof-reading is time consuming and expensive. This package therefore allows the page layout logic to be switched off and just add the crop marks provided the paper dimensions are correctly supplied. The details will be explained later when describing the package options.

2 Installation

The package consists of a single file, \texttt{zwpagelayout.sty}. Put it to a directory where \LaTeX\ expects packages, preferably \texttt{texmf-dist/tex/latex/zwpagelayout}. All remaining files belong to the documentation, put them to a directory where documentation (including documentation sources) is expected by \TeX\DOC\ or a similar program, preferably \texttt{texmf-dist/doc/zwpagelayout}.

3 Package dependence

As written in the introduction, the goal was to implement as much within this single package in order to reduce the risk of clashes. Yet a few packages may be loaded. The package needs to know what engine is being used. For this purpose the \texttt{iftex} package\footnote{Up to version 1.4c both \texttt{ifxetex} and \texttt{ifpdf} were used. Nowadays both these packages are deprecated and load \texttt{iftex}. The package would fail with a critical error if they were used.} is used. If the package is not found, it is assumed that the engines are not available. No error is reported. The color support requires the \texttt{color} package. It is loaded only if the color support is requested. The algorithm for deciding when the package is needed will be described in detail in section \texttt{12}.

Option setting is implemented via the \texttt{kvoptions} package which in turn loads the \texttt{keyval} package. These packages should be available in any nowaday’s \TeX\ distribution.

4 Usage

The package is loaded simply by:

\texttt{\usepackage[(options)]{zwpagelayout}}

Remember that the options cannot be given later, all of them must be present either here or as options to the \texttt{\documentclass} command. The package will set some
dimensions based upon \normalsize. The package that modifies font sizes must therefore be loaded before \zwpagelayout.

5 Option values

Some options accept a value. If the option is not specified, it may have a default value. For ease of use an option may be given without a value. It will then have a standard value. The default and standard values will be given in the option description.

The option value may sometimes contain spaces and commas. However, commas are used to separate options, and during parsing the spaces are ignored. The spaces must therefore be preceded by a backslash and an option value containing commas must be enclosed in braces, for example:

\usepackage[a4,subject=Some\ subject,  
 keywords={keyword\ 1,\ keyword\ 2}]{zwpagelayout}

6 Driver selection

The driver is usually selected automatically. The package makes use of the ifxetex and ifpdf packages to detect either Xe\TeX{} or pdftex. If none of them is detected, dvips is assumed.

It may sometimes be necessary to set the driver manually by giving the driver option. This option recognizes drivers unknown, pdftex, xetex, and dvips. In addition other is an alias to unknown, dvipdfm and xdvipdfm are aliases to xetex.

The package shows the driver in the log file. If the driver is set to unknown, all driver specific features will be disabled.

7 Paper size and orientation

The first task of the package is to define paper size and orientation. Remember that the package is intended for use in real life where we cannot be limited to standard papers sizes. However, the standard paper sizes are used quite often and we must be able to use them too. The options were tested with pdf\TeX{}, dvips as well as (x)dvipdfm(x).

7.1 Orientation

The package usually accepts the dimensions as they are, i.e. width and height of the page. The orientation cannot be changed. If you wish to have the possibility to change the orientation, you have to use this option. It is used automatically with all standard paper sizes (see section 7.2.2). You will rarely specify it yourself.

These options sets the paper orientation, PORTRAIT is the default. They can be used only if ALLOWWIDTHHEIGHTSWITCHING was specified, otherwise they are ignored.

7.2 Paper size

The package option defines the trimmed paper size. If the crop marks are added, the real paper size will be added. Dimensions \paperwidth and \paperheight will thus
contain the values that will subsequently be sent to the driver. If you for any reason
wish to know the trimmed dimensions, you can calculate them as follows:

\[
\text{trimmed width} = \text{paperwidth} - 2\text{hoffset} \\
\text{trimmed height} = \text{paperheight} - 2\text{voffset}
\]

### 7.2.1 Generic paper size

Option \texttt{papersize} is used to define arbitrary paper size. You define it as a pair of
two dimensions, the width and the height. The numbers are separated by a comma,
therefore the specification must be enclosed within braces, e.g.

\usepackage[\texttt{papersize}={200\text{mm},100\text{mm}}]{zwpagelayout}

The above written command sets the paper width to 200\text{mm} and the paper height
to 100\text{mm}, i.e. the paper orientation will be landscape. Now consider the following:

\usepackage[\texttt{papersize}={200\text{mm},100\text{mm}},
AllowWidthHeightSwitching]{zwpagelayout}

Since the width/height switching is allowed and the default orientation is portrait
(option \texttt{Portrait} is the default), the width will be 100\text{mm} and the height will be
200\text{mm}.

You can achieve the same result as the first command by the lengthy code:

\usepackage[\texttt{papersize}={200\text{mm},100\text{mm}},
AllowWidthHeightSwi\texttt{t}ching,Landscape]{zwpagelayout}

You see that the command may become confusing. You should better not use
\texttt{AllowWidthHeightSwitching} together with \texttt{papersize}.

If the \texttt{papersize} option is not used, it defaults to the A4 size, i.e. to paper
dimensions 210\text{mm} \times 297\text{mm}.

If the book cover is being typeset, we want to calculate at least the width. The
detailed explanation will be given in section 9. Here we put just as an example:

\usepackage[\texttt{papersize}=,200\text{mm},spine=15\text{mm},textwidth=14\text{cm},
margins]{zwpagelayout}

It is even possible to calculate both dimensions using e.g.

\usepackage[\texttt{papersize},spine=15\text{mm},textwidth=14\text{cm},textheight=20\text{cm},
margins]{zwpagelayout}

### 7.2.2 Standard paper sizes

Options \texttt{A0}...\texttt{A10}, \texttt{B0}...\texttt{B10}, \texttt{C0}...\texttt{C10} are used to select paper size according to
the A, B or C series where the dimensions are rounded to integers in millimeters. For
instance, the A6 size is 105\text{mm} \times 148\text{mm}. The package also supports paper sizes
\texttt{EXECUTIVE} (7.25\text{in} \times 10.5\text{in}), \texttt{LEGAL} (8.5\text{in} \times 14\text{in}), and \texttt{LETTER} (8.5\text{in} \times 11\text{in}).
If one of these options is used, \texttt{AllowWidthHeightSwitching} and \texttt{Portrait}
are assumed. The page orientation may be switched by option \texttt{Landscape} (see
section 7.1).
7.3 Page bounding boxes

The drivers usually set MediaBox to the physical size of the page. If cropmarks are requested (see section 11), the package sets also BleedBox and TrimBox, ArtBox is explicitly forbidden by PDF/X. CropBox is intentionally unset since it causes cropped display in Adobe Reader. Since page size setting is delayed, MediaBox contains the whole page including the area for the cropmarks. MediaBox is calculated by the driver, the other boxes are calculated by \TeX. Their dimensions are therefore not exact because \TeX does not use floating point arithmetic. The difference is negligible.

Option \texttt{noBboxes} disables setting the above mentioned boxes. Currently there is a known bug causing fatal error in Adobe Distiller if these boxes are set.

Macro \texttt{\noBboxes} performs exactly the same action as the \texttt{noBboxes} option. The only advantage is that it can be used later in the preamble of the document. It cannot be used after \texttt{\begin{document}} because the boxes are already set at that time.

8 Page layout options

These options define the layout of the odd page. The layout of the even page is assumed to be a mirror image. The values of \texttt{\oddsidemargin} and \texttt{\evensidemargin} are calculated from the values of the options.

8.1 Margins

This set of options us used to define margin sizes. Remember that all margins are measured from the top left corner of the paper, not from 1in border which is the dvi origin!

8.1.1 Option \texttt{MARGINS}, standard 0 mm

This option sets all margins (top, left, right, bottom) to the specified size. You will not be able to change some of the margin to another size. If you need different size for any margin, you have to set all of them separately and not use this option. Notice that almost everything may be calculated automatically, thus it is not necessary to specify all values.

8.1.2 Option \texttt{TOPMARGIN}, default 1 in

This option sets the value of \texttt{\topmargin}.

8.1.3 Option \texttt{BOTMARGIN}, standard \texttt{TOPMARGIN}

This option specifies the size of the margin below the running footer.

8.1.4 Option \texttt{LEFTMARGIN}, default –1 in

This option sets the value of the margin at the left side of an odd page (and the margin at the right side of an even page). Negative value means that the value was not given.
8.1.5 Option RIGHTMARGIN, default –1in
This is the size of the right side of an odd page. Similarly the negative value means that the option was not specified.

8.2 Text dimensions
The following options are used to specify the height and width of the text.

8.2.1 Option TEXTWIDTH, default –1in
This option specifies the width of the text without marginal notes. Its meaning is different for book covers. The option specifies the width of the cover without the extra spine (xspine), flap (flap) and trimming (xtrim or trim).

8.2.2 Option TEXTHEIGHT, default –1in
This option specifies the total height of the text including the header and footer.

8.2.3 Option HEADHEIGHT, default 0mm
This option specifies the height of the running head.

8.2.4 Option HEADSEP, default 0mm
This is the value of \headsep.

8.2.5 Option FOOTSKIP, default 0mm
This option specifies the value of \footskip.

8.2.6 Option TOPSKIP, default \topskip
This option enables changing the value of \topskip. It is rarely needed. However, the value of \topskip is usually less than \baselineskip which may cause problems in some page layout schemes. Since we have already written that font sizes must be defined before \zwpagelayout is loaded, you can safely specify \topskip=\baselineskip.

8.2.7 Option STRICTHEIGHT, default false, standard true
The value of the \TeX dimension \textheight is calculated from the values of the options and later adjusted so that together with \topskip it represents an integer number of lines. This may not be desirable in some cases. This option instructs the package not to perform any adjustment and accept the calculated value.

8.2.8 Option ADJUSTFOOTSKIP, default true, standard true
If option STRICTHEIGHT is not given, the calculated value of \textheight is decreased to the nearest integer multiple of \baselineskip. The difference is then added to \footskip in order to preserve the total height. If ADJUSTFOOTSKIP is set to false, the difference is added to \headsep instead.

The difference between these two options is shown in figure 1. Adjustment of \footskip was achieved by:
Figure 1: Compensation of \textheight by changing \footskip (on the left) and \headsep (on the right)

\usepackage[c8,margins=6mm,headheight=4mm,headsep=4mm, croplength=3mm,cropgap=2mm, cropmarks,cropframe,croptitle=Adjust\ footskip]{zwpagelayout}

The sample on the right side of the figure was created by:

\usepackage[c8,margins=6mm,headheight=4mm,headsep=4mm, adjustheadsep, croplength=3mm,cropgap=2mm, cropmarks,cropframe,croptitle=Adjust\ headsep]{zwpagelayout}

8.2.9 Option \texttt{ADJUSTHEADSEP}, default \texttt{true}, standard \texttt{true}

This is a complementary option to \texttt{ADJUSTFOOTSKIP}.

9 Calculation of missing dimensions

The package can either calculate paper size from the page layout dimensions or calculate missing page layout dimensions if the paper size and some dimensions are known. It operates separately for the height and width. You can e.g. define the paper height and calculate the text height from it and the margins but specify all width layout dimensions and calculate the paper width.

When designing simple pages it is better to define the paper size and calculate some page layout dimensions. However, for book covers it is recommended to calculate at least the paper width from the layout dimensions of the front cover, the spine and the flap width.
9.1 Calculation of the paper size

Remember that paper size can be calculated only if all page layout dimensions for the corresponding orientation (height, width) are specified. There is no diagnostics for warning you if some important options are missing, the result will just be wrong or the package may even report an error. All dimensions are considered without the area for the crop marks.

9.1.1 Paper height

Calculation of the paper height is very simple. The formula is:

\[ \text{paperheight} = \text{topmargin} + \text{textheight} + \text{botmargin} + 2 \text{ytrim} \]

Remember that \text{textheight} includes also \text{headheight}, \text{headsep}, and \text{footskip}. It is not necessary to specify \text{ytrim}, the package checks the existence of this option and removes it from the formula if not given.

9.1.2 Paper width

Algorithm for calculating the paper width differs for simple pages and book covers. In the simple case the paper width is calculated as follows:

\[ \text{paperwidth} = \text{leftmargin} + \text{textwidth} + \text{rightmargin} \]

The value of \text{textwidth} will be equal to \text{textwidth}. The same value will be stored in macro \text{UserWidth}, see section 15.2.

If the book cover is designed, the \text{textwidth} option refers to the width of the text at the front cover but \text{leftmargin} and \text{rightmargin} are used to set \text{oddsidemargin} and \text{evensidemargin}. It is therefore better to set these options to zero, or alternatively to the same value as \text{flap} or \text{xtrim} if the corresponding area will be left empty. The value of \text{textwidth} will then be calculated from the final paper width by:

\[ \text{textwidth} = \text{paperwidth} - \text{leftmargin} - \text{rightmargin} \]

If the \text{flap} option is used without the \text{spine} option in order to emulate the front cover and spine with an empty back cover, the paper width is calculated as:

\[ \text{paperwidth} = \text{leftmargin} + \text{flap} + \text{textwidth} + \text{xtrim} + \text{rightmargin} \]

The value of \text{xtrim} may be omitted. The value of \text{xspine} will be silently ignored. It is not allowed to have just the spine, the front cover and the flap while leaving the back cover empty.

The case of a book cover with the spine given is a bit more complicated:

\[ \text{width} = \text{xspine} + \text{textwidth} + \text{flap} + \text{xtrim} \]
\[ \text{paperwidth} = \text{leftmargin} + \text{spine} + 2 \text{width} + \text{rightmargin} \]

Options \text{xspine}, \text{flap}, and \text{xtrim} need not be specified if these elements are not needed.
9.2 Calculation of page layout dimensions

Algorithm for calculating the page layout dimensions is intended for simple pages, not for book covers. Options XTRIM, YTRIM, SPINE, XSPINE, and FLAP are silently ignored but will be taken into account when producing the crop marks. You can still make use of this algorithm if you understand what you are doing and if you wish to do extra calculations yourself.

The dimensions may be overdetermined. In such a case the algorithm disregards one of the dimensions and calculates it.

9.2.1 Vertical dimensions

The algorithm first looks whether TEXTHEIGHT was given. If not it is assumed that the user wishes to have it calculated from the paper height and the margins. If the BOTMARGIN option was not set, it will be set to the same value as TOPMARGIN.

In the second step the package looks whether BOTMARGIN is defined, either by the user or from the previous step. If so, the text height is calculated, otherwise the bottom margin is calculated from the top margin and the text height. As a matter of fact, the bottom margin is never used by \TeX.

Finally the value of \textwidth is reduced by \headheight, \headsep, and \footskip. If STRICTHEIGHT is \false, the values are later adjusted according to options \adjustfootskip and \adjustheadsep so that \textheight – \topskip is an integer multiple of \baselineskip.

9.2.2 Horizontal dimensions

The sum of the horizontal dimensions must be equal to the paper width according to the relation:

\[
\text{LEFTMARGIN} + \text{TEXTWIDTH} + \text{RIGHTMARGIN} = \text{PAPERWIDTH}
\]

If all three dimensions are specified, TEXTWIDTH is disregarded and calculated from the other dimensions. If any two dimensions are given, the missing one is calculated from the above formula. If only one dimension is given, it is assumed that both margins have the same size and the above formula is applied. It is even possible to omit all dimensions. In such a case the margins are assumed to have the same size as TOPMARGIN and the text width can thus be calculated.

10 Page reflection

We sometimes need to print the whole document as a mirror image. Although there are external tools that can provide such a job taking PDF or PS as input, it is useful to do everything in a single step. The package provides options REFLECTHORIZONTALLY for horizontal reflection and REFLECTVERTICALLY for vertical reflection, respectively. If you specify both, some drivers may interpret both of them and print rotated 180°, some interpret only one of them.

The PostScript to PDF converters optionally rotate pages according to the text direction. They may be confused by reflected text and add undesired rotation. If the horizontally reflected text is rotated 180°, it looks as if it were reflected vertically instead.
Remember that these options are intended for printing only. The hypertext links made by the hyperref package will be wrong. If you wish to rotate parts of texts and preserve hyperlinks, use rotating instead.

A word of warning has to be said. In pdftex reflection is implemented by redefining \shipout. We add PDF literal code to the beginning of each page. For dvips we add code to the bop-hook. If you need your own code in the bop-hook, you have to store the old definition and execute it. For xetex we add code to bop and eop. It seems that only one bop and one eop can be used. That is why the page is reflected vertically if both options are used. As a result you are not allowed to use your own bop and eop code together with these options.

11 Crop marks

The crop marks must appear outside the print area. The package assumes that \paperheight and \paperwidth contain the page size after trimming. These dimensions will then be increased and the page will be shifted by setting \hoffset and \voffset. If you wish to print the crop marks using ZWPAGELAYOUT, you must not change values of \hoffset and \voffset.

The values of \hoffset and \voffset will be set to the sum of croplength and crogap, see the following text.

11.1 Basic crop marks options

Options described in this section define basic behaviour of the crop marks. The options can be used in all crop mark styles.

11.1.1 Option onlycropmarks, default false, standard true

It may happen that a document is already finished and proof-read and just the crop marks have to be added. By specifying option onlycropmarks you instruct the package to ignore all page layout options and interpret the crop marks options only. You just have to ensure that \paperheight and \paperwidth are set to the dimensions of the trimmed page before theZWPA\GELAYOUT package is loaded and \hoffset and \voffset are left at their default values.

11.1.2 Option cropmarks, default false, standard true

This option asks for creation of the crop marks.

11.1.3 Option nocropmarks, default true, standard true

This is a complementary option to cropmarks.

11.1.4 Option croplength, default 5 mm

This option specifies the length of the crop mark.

11.1.5 Option crogap, default 5 mm

This is the space that must be left blank between the crop marks and the trimmed page. This area is also known as bleed.
11.1.6 **Option CROPFRAME, default false, standard true**

When designing a book cover we often wish to verify whether all elements are properly aligned. Option CROPFRAME can be used to print the frames. It is active only if CROPMARKS was specified.

11.1.7 **Option NOCROPFRAME, default true, standard true**

This is a complementary option to CROPFRAME.

11.1.8 **Option CROPSIZE**

This option selects the style of the crop marks. Two styles are defined, default and leaflet.

11.1.9 **Option CROPTITLE**

This option defines the text that should be printed on each page. It may e.g. be the title of the document. Remember that all spaces are gobbled when parsing the options. The spaces must therefore be specified as \␣ or the text must be enclosed in curly braces.

11.1.10 **Option CROSEPARATOR**

This is the separator between the title and the page number. Its default value is \quad.

11.1.11 **Option PAGENUMBERFIRST, default false, standard true**

Each page contains the title followed by the separator and the page number. If you set this option to true, the order will be reversed.

11.1.12 **Option PAGENUMBERLAST, default true, standard true**

This is a complementary option to PAGENUMBERFIRST.

11.1.13 **Option USEPAGENUMBERS, default true, standard true**

This option requests printing the page numbers.

11.1.14 **Option NOPAGENUMBERS, default false, standard true**

This is a complementary option to USEPAGENUMBERS.

11.1.15 **Option NOBLEEDCLIP, default false, standard true**

The pages are clipped to the bleed box so that graphics does not collide with the crop marks. Since the package must work also with DVIPS, the PDF operators are not used and the crop marks area outside the bleed box is just overpainted with white rectangles. The COLOR package is thus required and will be loaded automatically. If you set NOBLEEDCLIP to true, the pages will not be clipped. It may be useful if you know that nothing extends to the crop marks area and the COLOR package may clash with other packages required by your document.
11.2 Options for the default style

These options can be used if CROPSTYLE is set to default or omitted.

11.2.1 Option SPINE

This option is used for designing book covers. It specifies the width of the book spine. You can even request a zero width but negative values will have disastrous results.

11.2.2 Option XSPINE

This option defines the extra space adjacent to the spine so that the book can be safely opened. This space should not be used for printing logos etc., because they will soon be damaged by frequent use of the book. The option is ignored unless SPINE is used.

11.2.3 Option FLAP

This is another option for book covers. It specifies the width of the flap. If SPINE is given, the book cover is supposed to have flaps of equal sizes on both sides. Sometimes you do not have flaps and the back cover remains empty, thus you do not like to prepare the design of it, you just wish to design the spine and the front cover. This can be achieved by specifying FLAP as the spine thickness and omitting SPINE.

11.2.4 Options TRIM, XTRIM, YTRIM

The paper or canvas used for printing the book covers is folded to the inner side yet part of it will be visible. Such part is specified by XTRIM in horizontal direction and YTRIM in vertical direction. You can use TRIM to set both of them to the same value.

11.3 Options for the leaflet style

The following options can be used if CROPSTYLE is defined as leaflet. As the value says, the style is useful for leaflet production because in addition to the crop marks additional marks for folding. Not all options can be used with all fold types. It will be described in greater detail in the following text.

The leaflets are usually printed on both sides and sometimes one of the leaves needs width correction as will be explained later. The macros will apply the correction the one side on odd pages and on the other side on even pages. This can only happen if the TWOSIDE class option is given or a class is used where two-side printing is the default. Usually the leaflet will consist of two pages only but no check is made.

The CROPFRAME option (see 11.1.6) can also be used for previewing the leaflet layout.

11.3.1 Option LEAFCOUNT, default 4

This option defines the number of leaves to be used in the Z-type. It is silently ignored with other fold types. Internally other fold types overwrite it with the value they need in the macros.

11.3.2 Option FOLDCORR, default 0mm

As default all leaves have equal width. However, from technical or stylistic reasons the letmost or righmost leaf requires a different width. This can be achieved by this
option. The value specifies an additional horizontal skip that is applied when printing the crop/fold marks and the optional frames.

The width of the leaves is equal because it is achieved by \hfil. If you specify \foldcorr=-2mm, the corrected leaf will be 2mm narrower than the others. Since there is 1fil in the width specification of the leaves, you can achieve nice tricks by specifying \foldcorr=5cm plus -1fil. In such a case the 1fil in the corrected leaf will vanish and its width will be 5cm.

Width corrections are not allowed in the Z and 4 types and the option value is ignored. The details of the \foldcorr will be given in the next section.

11.3.3 Option fold, default 2

This option selects a fold type used with the leaflet. Supported options are 2, 3left, 3right, 4, Z. Their exact meaning is described below.

2 This option is used for singly folded leaflet. Usually the leaves will have different widths. The width of the left leaf is modified by the \foldcorr option.

3left This option defines a leaflet with three leaves folded inside. For technical reasons the leaf folded inside must be slightly narrower. Typically this is the leftmost leaf. The leaf can be made narrower by applying \foldcorr.

3right This is essentially the same as the previous option with the only difference that the \foldcorr correction is applied to the rightmost leaf.

Z This option is used for Z-folded leaflets. The number of leaves is defined by the \leafcount option and with correction is not allowed.

4 This type of leaflet looks as the Z-type but without a fold in the middle. It can be viewed as a middle leaf of double width and the outer leaves are folded so that they touch each other. The middle crop mark is therefore missing because there is no fold there but a line will be drawn if the \cropframe option is requested.

As a final remark it is important to write that the width correction is applied as explained above on the odd pages. The correction of the same size is applied to the opposite side of the leaflet on even pages.

12 Color support

The package offers basic color support, namely it prints the names of separations. The color support is implemented via a few options. Color printing is performed using the \color package that is loaded automatically. The package does not use predefined color names.

The package recognizes the \color package by existence of the \definecolor macro. If this macro is not defined, the \color package will be added if:

- option \color is true
- option \nobleedclip is false and \cropmarks is true
- option \redefineblack is true
- option \redefinecmyk is true
- option \overprint is true
If none of the above applies, the color support is not needed and the package will not be loaded.

If the \texttt{COLOR} package is being loaded, no options are given to it. Especially the driver selected by the \texttt{DRIVER} option (see section \ref{driver}) is not set. If you must specify any option for the \texttt{COLOR} package, you have to load it yourself before loading \texttt{ZWPAGELAYOUT}.

12.1 Color support for cropmarks

Option \texttt{COLOR} asks for the color support. Without setting this option to \texttt{true} all other color options are silently ignored.

Option \texttt{COLORMODEL} defines the color model used. Its default value is \texttt{cmyk}. You will rarely need to change it.

Option \texttt{CROP COLOR} specifies the color to be used for the crop marks. Remember that the crop marks must be visible on all separations, thus it might not be sufficient to print them in black. As default their color is mixed of 100 \% of all components of the current color model. Since the default model is \texttt{cmyk}, the default value of this option is \(1,1,1,1\). Notice that the syntax conforms to the requirements of the \texttt{COLOR} package.

Option \texttt{COLORS} assigns names to the color components of the current model. Specification of each color must be enclosed in curly brackets. The color name is followed by a colon and comma separated values conforming to the syntax of the \texttt{COLOR} package. It will be clear from the following examples.

Suppose that for some strange reason you prepare the document in the RGB space. Your specification will then be:

\begin{verbatim}
\usepackage[cropmarks,color,colormodel=rgb,cropcolor={1,1,1},
          colors={{RED:1,0,0},{GREEN:0,1,0},{BLUE:0,0,1}},
          croptitle=RGB\ example]{zwpagelayout}
\end{verbatim}

Now we show a more realistic example. The document should be printed in custom colors. Since the true specification of custom colors requires much work and is rarely worth the trouble, we make use of the CMYK model. We will use cyan instead of Pantone 298 (blue), magenta instead of Pantone 213 (red), black will remain black and the yellow separation will be unused. The crop marks should not produce anything on the yellow separation and we should provide proper color names. The specification will therefore look as:

\begin{verbatim}
\usepackage[cropmarks,color,cropcolor={1,1,0,1},
          colors={{Pantone\ 298\ (blue):1,0,0,0},
                   {Pantone\ 213\ (red):0,1,0,0},{Black:0,0,0,1}},
          croptitle=Example\ with\ custom\ colors]{zwpagelayout}
\end{verbatim}

Notice that the \texttt{COLORMODEL} option was not specified. Its default value was used. The \texttt{CROP COLOR} option left zero for the yellow separation.

If a color is light as e.g. the process yellow, it may be better to display its name in white on a colored background. This is achieved by preceding the color name
with an asterisk. This is now the default behaviour for the yellow color. The default
definition is:

\[
\text{colors} = \{\{\text{CYAN} : 1, 0, 0, 0\}, \{\text{MAGENTA} : 0, 1, 0, 0\}, \{\text{*YELLOW} : 0, 0, 1, 0\}, \{\text{BLACK} : 0, 0, 0, 1\}\}
\]

### 12.2 CMYK colors

The \texttt{color} package defines \textit{black} using the GRAY model and colors \texttt{red}, \texttt{green}, \texttt{blue} by the RGB model. The GRAY model rarely causes any problem but the RGB model is not acceptable for printing. The \texttt{zwpagelayout} package therefore defines the corresponding colors using the CMYK model. Different names are selected so that there is no clash in case you really need these colors in RGB.

### 12.3 Overprinting support, default \texttt{false}, standard \texttt{true}

The overprinting support must be requested by the \texttt{overprint} option. If the option remains \texttt{false}, the overprinting commands will be defined but will do nothing. Remember that you can overprint any color, not just black. You thus should not enable overprinting globally. The mode is therefore set to \texttt{knockout} within the package.

Overprint is implemented in all supported drivers. However, there is a minor problem with the \texttt{(x)dvipdfm(x)} family of drivers. The definition of the graphic state must be present in the resources of each page where overprinting is used. The \texttt{(x)dvipdfm(x)} drivers do not do it automatically, it has to be done by the \texttt{\Underline{OverprintXeTeXExtGState}} macro. Since the cropmarks switch overprint off, they require the definition of the graphic state and the macro is always invoked from the running head. This requirement is thus a minor problem. The user usually does not care whether overprint is enabled for preview and proof-reading. The final document will have cropmarks and thus overprint will be enabled.

These macros change the mode to \texttt{overprint} or \texttt{knockout}, respectively. They act as declarative macros, similarly as e.g. \texttt{\textit{shape}}. You have to use them within a group. The macros are intended to be used for changing the mode for a longer part of text. Due to the way how environments are handled in \LaTeX, it is also possible to write:

\begin{verbatim}
\begin{SetOverprint}
Some long text to be overprinted...
\end{SetOverprint}
\end{verbatim}

If a short part of text should be printed in a different mode, one-argument macros \texttt{\textoverprint} and \texttt{\textknockout} can be used. They act similarly as the \texttt{\textit{}} macro.

Overprinting works only if both the background and foreground colors are in the CMYK model. However, the \texttt{black} color, which is most often overprinted, is defined in the GRAY model as default. This package defines the \texttt{cmykblack} color that may be used for this purpose. In addition if \texttt{REDEFINEBLACK} is set to \texttt{true}, the standard \texttt{black} color will be redefined in CMYK.

Although \texttt{red}, \texttt{green}, \texttt{blue} will rarely be used for overprinting (maybe just as \texttt{REDEFINETOCMYK}}
a background), option \redefinetocmyk requests redefinition of these colors to CMYK. The \texttt{black} color will be redefined as well.

\textbf{Important note:} the (x)dvipdfm(x) drivers may switch to the gray colour model after \texttt{\textcolor{cmykblack}} if redefinition of black or even all colours to CMYK was requested. If black overprint does not work, insert explicit \texttt{\color{cmykblack}.} This trick is not needed with pdfTeX or dvips.

If the colors are redefined to CMYK, the original definitions are not available. Although you redefine them due to a printing process where the RGB colors are undesirable, you can sometimes need them. For this purpose \texttt{grblack, rgbred, rgbgreen, rgbblue} colors are always available.

13 PDF information

The package writes the basic information that is required by PDF/X even if PDF/X conformance is not requested. The basic pieces of information are \texttt{CreationDate} and \texttt{ModDate}. Implementation is driver dependent and some information is supplied by the driver itself. Thus \texttt{pdffont} inserts both, (x)dvipdfm(x) (Xe\TeX) adds \texttt{CreationDate} only, dvips adds none. The missing information is supplied by this package based on \texttt{\date} and \texttt{\time}. The next subsections will explain how other fields can be defined and how they can be disabled if needed.

13.1 PDF title

The \texttt{title} option is used to set the title field. The default is to take the contents of the \texttt{crotitile} option even if the cropmarks are switched off. If \texttt{croptitle} is empty, \texttt{\jobname} is used. If you specify this option without a value, it has a special meaning of suppressing creation of PDF information field. Since this is not mnemonic, there is a \texttt{nopdfinfo} option with the same effect, see subsection 13.5.

13.2 PDF author

The \texttt{author} option sets the author of the document. The field is not required by PDF/X, therefore it has no default value.

13.3 PDF subject

The \texttt{subject} option defines the subject of the document.

13.4 PDF keywords

The \texttt{keywords} option is used to set the list of keywords. Usually the keywords will be given as a comma separated list. They must therefore be enclosed in braces.

13.5 Option \texttt{nopdfinfo}

The above mentioned fields may also be set in the PDF file by the \texttt{hyperref} package. If \texttt{hyperref} is used, it may not be desirable if \texttt{zwpagelayout} wrote the PDF information. If you specify \texttt{nopdfinfo} in the list of options, setting all above mentioned information (including \texttt{ModDate}) will be disabled. This option is not boolean, it just erases the contents of the \texttt{title} option, see subsection 13.1.
Since options are processed in the order in which they are declared in the package, \nopdfinfo will always erase the PDF title even if it is specified before \title. It has recently been found that these packages do not conflict, it is safe to specify some pieces of information by \zwpage\layout and other pieces of information via \hyperref. Anyway, this option will be preserved for the case that it might be needed in the future.

14 PDF/X-1a compliance

The package partially implements the PDF/X-1a standard. Remember that implementation is driver dependent and not everything can be achieved with all drivers. The following sections will give you more detail. Unlike the \pdfx package we try to do as much in \xetex and set the bounding boxes according to the real page size.

14.1 Option pdfminorversion

This option allows you to set the version of the PDF file. It works with \pdftex only. There is no \special for sending this information to (x)dvipdfm(x), it can only be set on the command line. Similarly PostScript to PDF converters accept such setting from the command line or a configuration file although there is a PS command for setting it.

The same effect can also be achieved by \SetPDFminorversion from a preamble. The macro accepts a single argument and is implemented for \pdftex only. It does nothing for other drivers.

14.2 Option pdfx

This option ask the package to create PDF/X-1a file. The first requirement is to set PDF version to 1.3, thus it sets the minor version to 3 and then disables macro \SetPDFminorversion. Other options have reasonable default values but they can be changed as described in the following subsections.

PDF/X-1a compliance is not handled for \dvips and some features are not available for \xetex.

14.3 Options \OutputCondition and \OutputConditionIdentifier, default Euroscale Coated v2

These options specify the ICC profile. I am not sure how to obtain the correct names. The default values correspond to the ICC profiles used in Europe but you can easily set another value. From my personal experience I prefer \eucmyk50 when converting my images from AdobeRGB to CMYK.

14.4 Option ICCfile

This option specifies the name of the file containing the ICC profile. There is no default definition and no profile is embedded. The profiles usually accompany commercial products as printers and scanners or can be downloaded from the web. If you have a CMYK profile that you wish to embed, you can specify its name with the optICCfile option. The profile can only be embedded by \pdftex.
14.5 Font embedding
PDF/X requires all fonts to be embedded. The zwpagelayout package cannot ensure it. You have to verify your configuration files and make sure that fonts are embedded.

14.6 Page bounding boxes
It is mandatory to set BleedBox and TrimBox in addition to MediaBox. Setting these boxes is explained in section [7,3] ArtBox is explicitly forbidden by PDF/x, therefore it is not set.

14.7 PDF information
Mandatory fields are title, CreationDate and ModDate. All these fields are set automatically unless they are disabled as described in section [13].

14.8 MPT metadata
Embedding MPT metadata is currently not implemented. It will be implemented in the future but only for pdftex.

14.9 Color
PDF/X-1a allows only CMYK colors and spot colors. Since zwpagelayout does not handle colors itself but makes use of the color package, it cannot verify that only allowed colors are used.

15 Useful macros
The package offers two types of useful macros. The macros from the first group help in designing the document. However, as mentioned in the Introduction, the package may be deployed in already existing document just for adding the crop marks. In order to reduce the risk of conflicts with other packages these macros are unavailable if the ONLYCROPMARKS option is used. The second group contains macros that are primarily used in the crop mark generation. They are always visible.

15.1 Userspace macros
As written above, macros of this group are available only if the ONLYCROPMARKS option was not used. It is not planned to make any interface for providing them even with the ONLYCROPMARKS option. If the document is already finished, you do not need them. If you write a new document, it is preferable to use the whole package for defining the page layout. The macros will than be available.

\texttt{\LaTeX} should use integer arithmetic but some implementations, e.g. em\texttt{\LaTeX}, violate this rule. This makes processing the text faster but may have bad results. If you combine text with boxes and fixed size glues the height of which is an integer multiple of \texttt{\baselineskip}, the round-off errors may add a few scaled points, the page overflows and as a result is made one line shorter and underfull vbox is reported. For this reason tiny shrink is added to \texttt{\topskip}, its size is 11.00153pt minus 0.00763pt. Yet it may not be sufficient in some cases. We therefore provide vertical skip macro \texttt{\Vcorr} the size of which is shrinkable zero. The meaning of \texttt{\Vcorr} is macro:->\texttt{\vskip 10sp minus 50sp}. 
We often need a vertical skip the size of which is a multiple of \baselineskip. The \verb|\vb| macro serves this very purpose. It accepts an optional argument in square brackets which denotes the multiple of \baselineskip. The default value is 1. The command also contains compensation shrinkage. Some packages activate several characters, even those which could be used in numerical and dimension specifications. Hyphens and dots are temporarily deactivated within the optional argument of the \verb|\vb| macro. You thus can comfortably specify negative as well as fractional dimensions.

\LaTeX{} provides \verb|\cleardoublepage| for moving the next text to the beginning of the odd page. However, you have no control over the page style of the inserted empty even page. This feature is enabled in the \verb|\NewOddPage| macro. Its syntax is:

\verb|\NewOddPage*[⟨style⟩]|  

Optional parameter ⟨style⟩ defines the style of the empty even page that should be fed to the \verb|\thispagestyle| command. The default is empty. The starred version displays a warning in the log file if an empty page was inserted.

This macro sets the contents of the message that should be displayed as a warning if an empty page was inserted as a result of \verb|\NewOddPage*|. The macro acts as \verb|\gdef|. This means that the definition is global and you can therefore have only one message unless you redefine it. The body of the message may contain macros. They will be expanded when the message is being written. You can use \verb|\MessageBreak| in order to split the text into several lines.

Generally speaking, you should not start a chapter on an even page but there are cases when it is desirable. Imagine the situation when each chapter starts with a full page illustration on the left and with its title page on the right. In such cases you need to start at the even page but \LaTeX{} does not contain any direct tool for doing it. This package provides the \verb|\NewEvenPage| with the same syntax as \verb|\NewOddPage|.

Similarly this macro serves for setting the message text that appears if an empty page was inserted as a result of the \verb|\NewEvenPage*| macro.

15.2 Crop mark macros

\TeX{} offers zero-width horizontal boxes with contents overlapping to the right (\verb|\rlap|) or to the left (\verb|\llap|). The \verb|zwpagelayout| package frequently needs a zero-width box with the contents centered overlapping evenly to both sides. The package thus provides macro \verb|\clap| and makes it available for the user.

It was written in the Introduction that the package allows to prepare the book cover before the exact dimensions are known. Later we just adapt the values of the package options and everything is recalculated automatically. As a matter of fact, it could not happen if we did not refer to selected dimensions in the document symbolically. Thus the values of some options are available in macros:

\verb|\CropFlap = flap|, \verb|\CropSpine = spine|, \verb|\CropXSpine = spine|, \verb|\CropXtrim = xtrim|, \verb|\CropYtrim = ytrim|, \verb|\UserWidth = textwidth|, \verb|\UserLeftMargin = leftrimargin|, \verb|\UserRightMargin = rightrimargin|.

The use of these macros can be shown by an example. The book cover with flaps displayed in Figure 2 was prepared by the following code:

\texttt{
\input utf8-t1 % conversion from UTF-8 to T1 by encTeX
\documentclass\{book\}
\usepackage\{papersize=\{,80mm\},topmargin=5mm,}

21
Remember that these macros contain only the dimensions that were specified in the \usepackage command, not those that were calculated by the algorithm described in section 9.2. If a shortcut option was used, all real dimensions are defined, i.e. the \textwidth option fills all four margin options, \topmargin, \leftmargin, \rightmargin, and \botmargin, and the \trim option fills both \xtrim and \ytrim. You can take advantage of it to make your document more general. You can e.g. define the book cover in two variants, with or without flaps, using this trick:

\ifcat$\CropFlap$% no flaps
\else
\vbox to \textheight{\hsize \CropFlap \centering
Back flap\vfill}\hss
\vbox to \textheight{\hsize \UserWidth \centering
Back cover\vfill \leavemode ISBN+EAN}\hss
\vbox to \textheight{\hsize \CropSpine \centering
\vfill
\begin{sideways}Spine\end{sideways}\vfill}\hss
\vbox to \textheight{\hsize \UserWidth \centering
Front cover\vfill LaTeX}\hss
\vbox to \textheight{\hsize \CropFlap \centering
Front flap\vfill}}\hss
\fi

Macro \thePageNumber is used to print the page number together with the crop mark text. We have already showed that it may be suppressed by the NOPAGENUMBERS option. Another possibility is to redefine it. We can e.g. define the book title with the CROPTITLE option and use the text “Cover” instead of the page number when typesetting the cover. Usage of this macro is also demonstrated in Figure 2.

15.3 Driver switching macros

These macros provides conditional branching according to the currently selected driver no matter whether it is chosen automatically or by specifying the DRIVER
Figure 2: Sample of a book cover with flaps
option described in section [6]. The macros do not change page layout, they are therefore available even if the ONLYCROPMARKS option was given.

Macro `\ifcaseZwdriver` expands to an open `\ifcase` primitive. You can thus `\ifcaseZwdriver` branch the code according to the driver. The numeric values are 0 for `unknown`, 1 for `pdftex`, 2 for `xetex`, 3 for `dvips`. The branching may look as follows:

\begin{verbatim}
\ifcaseZwdriver
    Code for unknown
\or
    Code for pdftex
\or
    Code for xetex
\or
    Code for dvips
\else
    Error, it may not happen!
\fi
\end{verbatim}

Since `\ifcaseZwdriver` is a macro, it cannot be used inside another conditional statement. If it falls to the `false` branch, it will not be expanded and TeX will complain that it sees misplaced `\else` etc. You would have to enter all corresponding conditional as `\csname` constructions or define the condition in a separate macro that will be invoked from the condition.

**Important note:** It is not guaranteed that the numerical assignment will be kept unchanged in future versions.

The `\ZWifdriver` allows conditional execution of a code for a specified driver. It `\ZWifdriver` requires two parameters. The first parameter is the driver name, the second parameter is the code to be executed. The macro recognizes all driver names and aliases as given in section [6]. It can be used e.g. in cases when you have to perform some action for a specific driver only. Suppose that you do not want to set the page bounding boxes (see [7.3]) if `dvips` is used but want to set them if the same document is processed by any other driver. You can thus put the following command to the preamble of the document:

\begin{verbatim}
\ZWifdriver{dvips}{\noBboxes}
\end{verbatim}

**Note:** This macro does not depend on the numerical assignment given above. It will therefore work the same way in the future versions.

## 16 Customizing crop styles

This section is intended for real TeXperts. The package tries to provide a lot of options that enable to customize the default crop style. Try to live with them because here you are touching the very guts of the package. If you squeeze them badly, your document will suffer from strange problems the source of which will be difficult to trace. However, if you like tough challenges and your stomach is strong enough, then read on, but remember, you have been warned.

You ask for a different crop style by the `cropstyle` option as described in section [11.1.8] on page [13]. Assume that you load the package with:
\usepackage[cropmarks,cropstyle=special,...]{zwpagelayout}

You will then have to define macro \cropstyle@special. The package first \cropstyle@special patches the footer in all page styles. A zero-width, zero-height, zero-depth box is added to the beginning of the footer. The actual point is set to the lower left corner of the paper as defined by \paperheight and \paperwidth. If NOBLEEDCLIP was not used, the area outside the bleed box is erased. The current color is set according to CROPCOLOR option and the font is selected. Afterwards the \cropstyle@special macro is called.

Some crop styles may require initialization. If it is the case of your style, you have to define macro \cropstyle@special@setup. This macro will be executed in the \AtBeginDocument hook. Execution of the macro in that hook allows you to define the crop style in a package that may be loaded after ZWPAGELAYOUT. It is not an error if the setup macro does not exist.

As already noted, the intention is to discourage users from writing their own crop styles. We will therefore only mention that the package defines a few useful macros that can be used in the crop style definition. If your temptation to design your own crop style is really strong, you should better study the package internals yourself.

17 Summary of driver specific features

The driver specific features are described throughout the manual but it may not be clear from the option or macro description that it is driver dependent. These features with the reference to the section, where it is described, are written below. All these features are disabled if an unknown driver is being used (section 6).

- Page bounding boxes, section 7.3
- Page reflection, section 10
- Overprinting, section 12.3
- Setting PDF information, section 13
- PDF/X-1a compliance, section 14

Color support is, of course, driver dependent too. However, the zwpagelayout has no pretention to deal with it. It is fully handled within the color package.

18 Known bugs and unimplemented features

This section describes features that are known not to work in all case or those that do not work with all drivers.

18.1 Driver repertoire

Only a few most frequent drivers are automatically detected and supported. Their list is presented in section 6. If you use another driver, you should probably disable all driver specific features.

18.2 Shifted cropmarks when the running foot overflows

If there is not enough space for the running foot, the cropmarks will most likely be shifted. It usually happens if you set option FOOTSKIP to zero (which is its default value) and forget to use \pagestyle{empty}.
18.3 Page boxes and Adobe Distiller
Setting page boxes causes a fatal error in Adobe Distiller (verified with versions 4 and 9). See section 7.3.

18.4 Page reflection
Option REFLECTVERTICALLY seems to produce slightly shifted output. If any of these options is used in Xe\TeX or more specifically with (x)dvipdfm(x) drivers, other bop or eop code must not be used. See section 10 for details on its implementation.

18.5 Overprinting
Overprinting works in (x)dvipdfm(x) drivers but may be cumbersome in some situations. More details are given in section 12.3.

It was also found that overprinting does not work if the PostScript file is converted to PDF by GhostScript version 7.x. This is a bug in GhostScript, overprinting works fine if GhostScript 8.x is used.

The effect of overprinting was tested in Adobe Acrobat 9 Pro in MS Windows XP Home Service Pack 3.

18.6 Inconsistent dates
Values of CreationDate and ModDate (see section 13) supplied by the driver contain information on the time zone. Unfortunatelly, time zone setting is not available in \TeX. If both fields come from the same origin, they are set consistently. If one of them is set by the driver and the other by the ZWPAGELAYOUT package, then only the field set by he driver will contain the time zone value. Depending on your time zone it may look as if the document were modified before it was created.

18.7 PDF/X conformance
The PDF/X conformance is only partial. The details are given in section 14 and its subsections.

19 Changes
This section summarizes the changes. The version and the package date is given. It may be useful to specify the date in the \usepackage or \RequirePackage command if you rely on a specific feature not available in the old version of the package.

19.1 Version 1.4e, 2022/04/18
Bug fix, a typo in a macro name.

19.2 Version 1.4d, 2020/02/07
- Bug fix, packages IFPDF and IFXETEX replaced with IFTEX.
- Bug fix, identification of PDF/X-1a corrected.
- Feature request, luatex85 loaded in order to support Lua\TeX compatibility.
- Modification, distribution file flattened as required by CTAN, see section 2.
19.3 Version 1.4c, 2013/01/13
Bug fix, the PDF boxes are properly set even in the (x)dvipdfm(x) family of drivers, i.e. in \TeX.

19.4 Version 1.4b, 2012/10/04
New feature, the color name in the cropmarks can be displayed in white on a colored background, see page 15.

19.5 Version 1.4a, 2012/05/20
Bug fix, if a user requested unexistent page style, the cropmark mechanism looped forever until all main memory was exhausted. Now the package issues an error message and uses the “empty” page style.

19.6 Version 1.4, 2012/05/13
Black overprint is implemented for the (x)dvipdfm(x) family of drivers. It means that it now works in \TeX, see section 12.3.

19.7 Version 1.3a, 2012/01/10
- Bug fix, code rearrangement in order to prevent an error message if ONLYCROPMARKS is used. It leads to the following changes in the functionality:
  1. Page size is always set in the driver specific way. It is still assumed that \paperheight and \paperwidth contained correct values before the package was loaded.
  2. Bounding boxes are set unless they are explicitly suppressed.
  3. PDF options are honoured. It is therefore possible to request PDF/X compliance, set the PDF title and other information. If you do not wish it, you have to suppress it explicitly by \nopdfinfo.

- Bug fix, weird errors appeared if the \ifxetex package was loaded previously either directly or indirectly. Loading of both \ifpdf and \ifxetex packages written in a different way.
- Bug fix, pagestyle patching redesigned (r. 409); in the previous versions the crop marks may disappear if \pagestyle was issued again, mainly when the \fancyhdr package was used.
- New feature, when defining a page style, a part of another style may now be inherited. The following code now can be used:

\def\ps@mypagestyle{\ps@plain
 \def\@oddhead{\textbf{My running head}}\let\@evenhead\@oddhead
 \pagestyle{mypagestyle}

- Bug fix: \globaldefs is set to zero for printing crop marks. If it were nonzero, crop marks will not work and will spoil the document. \TeX users probably do not know this primitive but who knows...
• Bug fix: without the `twoside` class option and with asymmetric margins the crop marks were printed on wrong positions on the even pages.

• New feature: crop marks style for leaflets added (section 11.3).

19.9 Version 1.2, 2011/09/04

• Bug fix, `fi` was missing in the definition of `\Zwifdriver`.

19.10 Version 1.1, 2010/12/21

Two bugs were fixed and a few new features were introduced. Documentation is modified and extended as well.

• Bug fix, if `\pagestyle` or `\thispagestyle` was issued within a group while crop marks were active, the package often failed into an endless loop which resulted in exhausting the memory.

• Bug fix, the code for page reflection for `dvips` did not preserve properly the old `bop-hook`.

• New feature, the driver can be explicitly selected (section 6) and the code can be branched according to the driver (section 15.3).

• New feature, page reflection implemented for (x)dvipdfm(x) drivers, i.e. for `Xe\TeX` (section 10).

• New feature, CMYK and RGB colors explicitly defined (section 12).

• New feature, colors may be redefined to use the CMYK model (section 12).

• New feature, overprinting implemented for `pdftex` and `dvips` (section 12.3).

• New feature, PDF information can be set without the need of loading the `hyperref` package (section 13).

• New feature, partial PDF/X-1a compliance (section 14).

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The sample files distributed with the package no longer require `enc\TeX` and private macro packages.

20 License

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