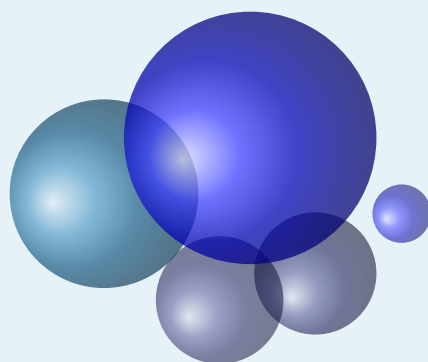


AlterMundus

tkz-doc.cls

A class to present
the tkz packages



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tkz-doc.cls is the class I use to write the documentation of my packages (**tkz-euclide**, **tkz-elements**, **tkz-tab**, **tkzexample**, ...). It is based on the class **scrartcl** and is designed to be compiled with **lualatex**. It adds a cover, a layout, boxes to present the macros with their options, and a set of macros to typeset and index the names of macros, options and arguments. The colours are defined in the file **tkz-doc.cfg**.

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Contents

1	Overview	4
1.1	Files	4
1.2	Packages loaded by the class	4
2	Options	4
3	Information about the package	4
4	The first pages	5
4.1	The cover: <code>\tkzTitleFrame</code>	5
4.2	The presentation page: <code>\presentation</code>	5
5	Colours	6
5.1	The file <code>tkz-doc.cfg</code>	6
5.2	Background and text: <code>\tkzSetUpColors</code>	6
6	Presenting a macro or an environment	6
6.1	The environment <code>NewMacroBox</code>	6
6.2	Lines of the tables	7
6.3	The environment <code>NewEnvBox</code>	7
7	Typesetting names	7
7.1	Arguments	8
7.2	Logos and signs	8
8	Index	8
9	Tables	8
10	Layout	8
11	History	9
	Index	9

1 Overview

`tkz-doc` is a personal class. It is distributed because the sources of the documentation of my packages need it, but it is not designed as a general purpose class: if you want to use it, read the source code first.

1.1 Files

- `tkz-doc.cls`: the class;
- `tkz-doc.cfg`: the colours used by the class (read at loading time). If you want other colours, copy this file in a directory searched by $\TeX$ and modify the copy.

1.2 Packages loaded by the class

The class loads `scrartcl` (options `titlepage` and `a4paper`), `tikz` with the libraries `decorations.shapes`, `decorations.text`, `decorations.pathreplacing`, `decorations.pathmorphing`, `decorations.markings` and `shadows`, then `ragged2e`, `footmisc`, `framed`, `eso-pic`, `scrlayer-scrpage`, `datetime` (option `yyyymmdd`), `booktabs`, `cellspace` and `multicol`. The options `dvipsnames` and `svgnames` are passed to `xcolor`.

The document should load `hyperref` (or `url`); without it, the url and the links of the first pages are simply printed. With the option `cadre`, `pgfornament` is loaded automatically if the document does not load it (a warning is given if it is not installed).

2 Options

option	effect
cadre	adds a framed title with ornaments on the cover (<code>\tkzTitleFrame</code>)
<i>other options</i>	passed to <code>scrartcl</code> (<code>DIV</code> , <code>fontsize</code> , <code>index=totoc</code> , <code>headings</code> , ...)

A typical beginning of a documentation:

```
\documentclass[DIV          = 14,
                 fontsize    = 10,
                 index        = totoc,
                 twoside,
                 cadre,
                 headings     = small]{tkz-doc}
\gdef\tkznameofpack{tkz-tab}
\gdef\tkzversionofpack{2.13c}
\gdef\tkzversionofdoc{2.13c}
\gdef\tkzauthorofpack{Alain Matthes}
\gdef\tkznamecollection{AlterMundus}
\gdef\tkzurlauthor{http://altermundus.fr}
\gdef\tkzurlauthorcom{http://altermundus.fr}
\nameoffile{\tkznameofpack}
\usepackage{tkzexample}
\usepackage[colorlinks]{hyperref}
\usepackage{makeidx}
\makeindex
```

3 Information about the package

These macros are defined with `\gdef` (or `\let`) in the preamble. They are used on the cover, in the footers and by `\presentation`. They all have a default value, so a missing definition is not an error.

macro	default	used by
<code>\tkznameofpack</code>	empty	title, left footer
<code>\tkzversionofpack</code>	empty	cover (vertical title)
<code>\tkzversionofdoc</code>	empty	cover (“Documentation V.”)
<code>\tkzauthorofpack</code>	Alain Matthes	cover, <code>\presentation</code>
<code>\tkznamecollection</code>	AlterMundus	cover, right footer
<code>\tkzurlauthor</code>	http://altermundus.fr	link of <code>\presentation</code>
<code>\tkzurlauthorcom</code>	http://altermundus.fr	url on the cover
<code>\tkzmailofauthor</code>	al.ma@mac.com	mail link of <code>\presentation</code>

4 The first pages

4.1 The cover: `\tkzTitleFrame`

`\tkzTitleFrame{<text>}`

Sets `\author`, `\title` (with `\tkznameofpack`) and `\date`, then builds the cover: a coloured page, the name of the package and its version written vertically, the name of the collection in shadowed letters, random balls, the author, the date and the url. With the option `cadre`, `<text>` is written in a frame decorated with four ornaments of `pgforament` (number 61); `\\` can be used to break the lines.

```
\tkzTitleFrame{tkz-doc.cls\\A class to present \\ the tkz packages}
\clearpage
```

4.2 The presentation page: `\presentation`

`\presentation`

Prints a page with the name given by `\nameoffile`, the name of the collection written vertically (a link to `\tkzurlauthor`), the name of the author (a mail link) and the text given by `\defoffile`.

`\nameoffile{<name>}`

Name printed at the top of the presentation page.

`\defoffile{<text>}`

Text of the presentation page. Successive uses are concatenated.

```
\nameoffile{\tkznameofpack}
\defoffile{\textbf{tkz-tab} is a package to draw tables of variations ...}
\presentation
```

5 Colours

5.1 The file `tkz-doc.cfg`

The colours are defined in `tkz-doc.cfg`. The main ones are:

name	definition	use
<code>myblue</code>	RGB 20,120,180	cover, optional arguments (<code>\opt</code>)
<code>sectioncolor</code>	MidnightBlue	titles, headers, footers, rules
<code>titlecolorbox</code>	gray!10	background of the name in the boxes
<code>framecolor</code>	myblue	frame of the cover (option <code>cadre</code>)
<code>codebackground, graphicbackground</code>		used by <code>tkzexample</code>

If the file is not found, the class defines `myblue`, `sectioncolor`, `titlecolorbox` and `framecolor` with the same values.

5.2 Background and text: `\tkzSetUpColors`

`\tkzSetUpColors[\local options]`

Sets the colour of the pages and of the text.

options	default	definition
<code>background</code>	white	colour of the pages
<code>text</code>	black	colour of the text

```
\tkzSetUpColors[background=white,text=black]
```

6 Presenting a macro or an environment

6.1 The environment `NewMacroBox`

`\begin{NewMacroBox}[\options] <environment contents> \end{NewMacroBox}`

`NewMacroBox` has two arguments: the name of the macro (without backslash) and its arguments. The name and the arguments are printed in a box at the top of a framed area; the name of the macro is indexed. Inside the environment, the name of the macro is stored in `\ActivBoxName`, used by the macros `\Toline` and `\TAline` to index the options and the arguments.

```
\begin{NewMacroBox}{tkzDemo}{\oarg{local options}\parg{A,B}}
\begin{tabular}{lll}
\toprule
\texttt{arguments} & \texttt{default} & \texttt{definition}\\
\midrule
\TAline{A,B}{no default}{two points}
\bottomrule
\end{tabular}

\medskip
\begin{tabular}{lll}
```

```

\toprule
\texttt{options} & \texttt{default} & \texttt{definition}\\
\midrule
\Toline{color}{black}{colour of the line}
\Toline{add}{0 and 0}{extension of the segment}
\bottomrule
\end{tabular}
\end{NewMacroBox}

```

gives:

\tkzDemo[<i>local options</i>](<i>A,B</i>)		
arguments	default	definition
A,B	no default	two points
options	default	definition
color	black	colour of the line
add	0 and 0	extension of the segment

6.2 Lines of the tables

These macros produce a whole line of a table with three columns and end it with `\`. The first column is indexed.

macro	first column indexed as
<code>\Toline{<option>}{<default>}{<definition>}</code>	option of <code>\ActivBoxName</code>
<code>\TAline{<argument>}{<default>}{<definition>}</code>	argument of <code>\ActivBoxName</code>
<code>\T0envline{<option>}{<default>}{<definition>}</code>	option of the environment <code>\ActivBoxName</code>
<code>\TMLine{<macro>}{<default>}{<definition>}</code>	macro

6.3 The environment `NewEnvBox`

The environment `NewEnvBox` has one argument, the name of the environment presented. It prints `\begin{<name>[options] contents} \end{<name>}` in the box and indexes the environment. Use `\T0envline` for its options.

7 Typesetting names

macro	result	index
<code>\tkzname{<name>}</code>	name	no
<code>\tkzcname{<name>}</code>	<code>\name</code>	yes (macro)
<code>\tkzhname{<name>}</code>	<code>\name</code>	no
<code>\tkzimp{<text>}</code>	text	no
<code>\tkzdft{<value>}</code>	value	no
<code>\addbs{<name>}</code>	<code>\name</code>	no
<code>\cmd{<foo>}</code>	<code>\foo</code>	no
<code>\NamePack{tikz}</code>	tikz	yes (Packages)
<code>\NameLib{calc}</code>	calc	yes (TikZ Library)
<code>\NameSys{MacOS}</code>	MacOS	yes (Operating System)
<code>\NameDist{TeX Live}</code>	TeX Live	yes (TeX Distributions)
<code>\NameFonct{sin}</code>	sin	yes (Functions)

7.1 Arguments

macro	result
<code>\meta{name}</code>	<code><name></code>
<code>\marg{name}</code>	<code>{<name>}</code>
<code>\oarg{name}</code>	<code>[<name>]</code>
<code>\parg{name}</code>	<code>(<name>)</code>
<code>\ooarg{name}</code>	<code>[<name>]</code>
<code>\var{name}</code>	<code>{<name>}</code>
<code>\varp{name}</code>	<code>(<name>)</code>
<code>\opt{text}</code>	<code>text</code>

7.2 Logos and signs

`\tkz` gives `TkZ`, `\TIKZ` gives `TikZ`, `\tikzname` gives `TikZ`, `\pgfname` gives `PGF`, `\BS` gives `\`. `\tkzHand`, `\tkzBomb`, `\tkzTwoBomb` and `\tkzHandBomb` put a sign in the left margin; they need the symbols `\lefthand` and `\bomb` (package `fourier`).

8 Index

The index is sorted with keys: a macro **name** is indexed as `name_1`, its arguments as `name_2` and its options as `name_3`, so that the options and the arguments follow the macro.

macro	entry
<code>\Imacro{<macro>}</code>	<code>\macro</code>
<code>\Iarg{<macro>}{<arg>}</code>	<code>\macro: arguments → arg</code>
<code>\Iopt{<macro>}{<opt>}</code>	<code>\macro: options → opt</code>
<code>\Istyle{<macro>}{<style>}</code>	<code>\macro: styles → style</code>
<code>\Ienv{<env>}</code>	<code>Environment → env</code>
<code>\IoptEnv{<env>}{<opt>}</code>	<code>env: options → opt</code>
<code>\IargEnv{<env>}{<arg>}</code>	<code>env: arguments → arg</code>
<code>\Ilib{<library>}</code>	<code>Library → library</code>

`\IargName`, `\IoptName`, `\IargNameEnv` and `\IoptNameEnv` take the same arguments, print the second one and index it. `\tkzNameMacro{<macro>}` prints and indexes a macro, `\tkzNameEnv{<env>}` an environment. The index is printed with `\printindex` (package `makeidx`); the class option `index=totoc` adds it to the table of contents.

9 Tables

With the column type `I`, `\thead[<font>]` changes the font of the following cells (default `\em\ttfamily`) and `\tbody` restores the normal font. `\tkzsubf{<a>}{<b>}` writes `a` above `b` in a cell, in small size.

<code>name</code>	<code>value</code>	<code>\begin{tabular}{I I }</code>
<code>a</code>	<code>1</code>	<code>\thead</code>
<code>b</code>	<code>2</code>	<code>name & value \\ \tbody</code>
		<code>\midrule</code>
		<code>a & 1 \\</code>
		<code>b & 2 \\</code>
		<code>\end{tabular}</code>

10 Layout

- header: the current section and subsection on the left, the page number on the right; footer: `\tkznameofpack` on the left, `\tkznamecollection` on the right; rules in `sectioncolor`;

- titles in bold typewriter in `sectioncolor`; the font is given by `\SectionFontStyle (\ttfamily)`;
- no indentation, -- for the items, numbering down to subsubsections;
- a part is printed alone on a page, centred.

11 History

1.46c (2026/10/20) Correction of old problems. The text of the documents is the same as with 1.45c, but the index changes: `NewMacroBox` and `NewEnvBox` no longer write a wrong index entry (name and arguments together); `\presentation` can be used twice; `\tkzTitleFrame` accepts fragile commands; with the option `cadre`, `pgfornament` is loaded if needed; default values for colours and information macros; `\tikzstyle` replaced by `\tikzset`; new macro `\tkzmailofauthor`; `\TeX` is robust again (an index entry containing `\TeX` may be sorted differently); `\tkzSetUpColors` no longer adds spurious spaces.

1.45c (2022/07/14) Last version of the old class.

Index

`\ActivBoxName`, 6, 7
`\author`, 5

`\date`, 5
`\deffoffile`, 5

Environment
 `NewEnvBox`, 7
 `NewMacroBox`, 6

`\Iarg`, 8
`\IargEnv`, 8
`\IargName`, 8
`\IargNameEnv`, 8
`\Ienv`, 8
`\Ilib`, 8
`\Imacro`, 8
`\Iopt`, 8
`\IoptEnv`, 8
`\IoptName`, 8
`\IoptNameEnv`, 8
`\Istyle`, 8

`\nameoffile`, 5

`\opt`, 6

Packages
 `booktabs`, 4
 `cellspace`, 4
 `datetime`, 4
 `eso-pic`, 4
 `footmisc`, 4
 `fourier`, 8
 `framed`, 4
 `hyperref`, 4

- makeidx, 8
- multicol, 4
- pgfornament, 4, 5, 9
- ragged2e, 4
- scrartcl, 4
- scrlayer-scrpage, 4
- tikz, 4
- tkzexample, 6
- url, 4
- xcolor, 4
- \presentation, 4, 5, 9
- \SectionFontStyle, 9
- \TAline, 6, 7
- \tbody, 8
- \thead, 8
- TikZ Library
 - decorations.markings, 4
 - decorations.pathmorphing, 4
 - decorations.pathreplacing, 4
 - decorations.shapes, 4
 - decorations.text, 4
 - shadows, 4
- \title, 5
- \tkzauthorofpack, 5
- \tkzBomb, 8
- \tkzDemo, 7
- \tkzDemo: arguments
 - A, B, 7
- \tkzDemo: options
 - add, 7
 - color, 7
- \tkzHand, 8
- \tkzHandBomb, 8
- \tkzmailofauthor, 5, 9
- \tkznamecollection, 5, 8
- \tkzNameEnv, 8
- \tkzNameMacro, 8
- \tkznameofpack, 5, 8
- \tkzSetUpColors, 6, 9
- \tkzSetUpColors: options
 - background, 6
 - text, 6
- \tkzsubf, 8
- \tkzTitleFrame, 4, 5, 9
- \tkzTwoBomb, 8
- \tkzurlauthor, 5
- \tkzurlauthorcom, 5
- \tkzversionofdoc, 5
- \tkzversionofpack, 5
- \TMline, 7
- \TOenvline, 7
- \TOline, 6, 7