

The termcal-de package

<https://github.com/SFr682k/termcal-de>

Sebastian Friedl
sfr682k@t-online.de

2018/03/16 (v2.0)

*“To achieve great things, two things are needed;
a plan, and not quite enough time”*

— LEONARD BERNSTEIN —

Abstract

The termcal-de package provides a German localization to the termcal package written by Bill Mitchell, which is intended to print a term calendar for use in planning a class.

Contents

Dependencies and other requirements	2
Installation	2
License	2
I The documentation	3
1 Getting started	3
1.1 Loading the package	3
1.2 Package options	3
2 A short tutorial	4
3 Differences to plain termcal	5
II The package code	6
Indices	10

Dependencies and other requirements

The `termcal-de` package requires \TeX 2 ϵ and the following packages:

termcal The main `termcal` package

pgfkeys, pgfopts Packages required for defining key-value sets and processing them as package options

datetime2, datetime2-german `termcal-de` uses `datetime2` and its German language module, `datetime2-german`, to print the date to the calendar cells. Please ensure that at least version 2.0 of `datetime2-german` is installed.

Installation

Extract the package file first:

1. Run \TeX over the file `termcal-de.ins`
2. Move the resulting `.sty` file to `TEXMF/tex/latex/termcal-de/`

Then, you can compile the documentation yourself by executing

```
lualatex termcal-de-doc.dtx
makeindex -s gind.ist termcal-de-doc.idx
makeindex -s gglo.ist -o termcal-de-doc.gls termcal-de-doc.glo
lualatex termcal-de-doc.dtx
lualatex termcal-de-doc.dtx
```

or just use the precompiled documentation shipped with the source files.

In both cases, copy the files `termcal-de-doc.pdf` and `README.md` to `TEXMF/doc/latex/termcal-de/`

License

© 2017-18 Sebastian Friedl

This work may be distributed and/or modified under the conditions of the \TeX Project Public License, either version 1.3c of this license or (at your option) any later version.

The latest version of this license is available at <http://www.latex-project.org/lppl.txt> and version 1.3c or later is part of all distributions of \TeX version 2008-05-04 or later.

This work has the LPPL maintenace status ‘maintained’. The current maintainer of this work is Sebastian Friedl.

This work consists of the following files:

- `termcal-de.dtx`,
- `termcal-de.ins`,
- the derived file `termcal-de.sty` and
- `termcal-de-doc.dtx`

Part I

The documentation

1 Getting started

1.1 Loading the package

Load `termcal-de` with `\usepackage{termcal-de}` *after loading* `babel` or `polyglossia`. Now, `termcal-de` looks for `termcal` and loads it when necessary.

`termcal-de` only adds a German localization to the `termcal` package.

So, if you are already familiar with `termcal`, you should read section 3 about differences to plain `termcal` *in any case*.

However, if you never used `termcal`, you could ...

- a) first read `termcal`'s documentation and take a look at section 3 afterwards or
- b) read the short tutorial on using `termcal` with `termcal-de` in section 2

1.2 Package options

TODO: Provide a package option allowing to use abbreviated month names

How to read this section – an example

The key-value options provided by `termcal-de` are depicted as follows:

- `metasyntacticals` foo, **bar**, foobar

Below the first line a short description of the option's effect is given.

But how should one interpret the first line?

That's quite simple since everything is based on this basic principle:

1. The **key's name** is printed on the left hand side of the dotted line using type-writer font. In this case, the key's name is `metasyntacticals` and you can change its value using `\usepackage[metasyntacticals=...]{termcal-de}`.
2. **Possible values** for this key are printed on the right hand side of the dotted line. In this case, valid key-value-specifications would be `metasyntacticals=foo`, `metasyntacticals=bar` and `metasyntacticals=foobar`.
3. When using a **key without a value specified**, the underlined value is assumed. Therefore, in this example `\usepackage[metasyntacticals]{termcal-de}` is equal to `\usepackage[metasyntacticals=foo]{termcal-de}`.
4. `termcal-de`'s **default configuration set** is composed out of the **bold** printed values of all keys listed here.

Provided key-value options

The following key-value options are provided for allowing configuration of termcal-de's behavior:

- `compat` true, **false**

When `compat`'s value is set to `true`, `termcal-de` will retain compatibility to the original `termcal` package and avoid changing the date format required by `termcal`'s commands.

- `drawdateframe` always, `atNewMonth`, **never**

This option allows to configure when a frame is drawn around the date.

Setting `drawdateframe`'s value to `always` will draw a frame around *every* date in the calendar. Specifying `atNewMonth` will draw a frame around the date when the month has changed since the last cell. Using the `never` value will draw no frame around any date.

- `datetime2`

This key set allows you to configure the way `datetime2` is configured for printing dates to the single cells.

Configuration is done by changing the subkeys' values:

```
\usepackage[datetime2={local=de-DE, numeric}]{termcal-de}
```

The following subkeys are available:

- `local` useregional, `german`, `de-DE`, `de-AT`, `de-CH`

Determines the language module used by `datetime2`.

When `useregional` is set, the language module will be loaded according to `babel`'s or `polyglossia`'s settings.

Otherwise, the explicitly given language module will be used.

- `numeric` true, **false**

Determines whether `datetime2` uses numeric date styles.

- `frompreamble` true, **false**

When `datetime2` is loaded and configured in your preamble, you should set this key's value to `true`. Otherwise, there will be clashing package options.

When the value of this key is `true`, the keys `local` and `numeric` will be ignored.

2 A short tutorial

TODO: Write a short tutorial explaining `termcal`'s basic usage

Printing the current date. Using the `\currentdate` command inside a cell will insert the date as printed in the top left corner of the according cell.

3 Differences to plain termcal

Important Note: *This section only applies until the `compat` option (see section 1.2) is given.* As soon as you pass it to `termcal-de`, the command's syntax stays — as in plain `termcal` itself — M/D/Y.

When using the standard configuration `termcal-de` does not only change the format of the printed dates, it also changes the date parameter's format expected by the standard `termcal` commands.

More precisely, these commands are affected:

- `\begin{calendar}{<starting date>}{<nr of weeks>}`
- `\options{<date>}{<option list>}`
- `\caltext{<date>}{<text>}`

Plain `termcal` expects `<starting date>` and `<date>` to be given in the m/d/y format (e. g. 1/10/18 for January 10, 2018). Due to redefinition in `termcal-de`, both arguments, `<starting date>` and `<date>` have to be given in the D.M.YYYY format (for January 10, 2018: 10.1.2018).

See table 1 for some examples.

plain termcal	with termcal-de package
<code>\begin{calendar}{1/10/18}{4}</code>	<code>\begin{calendar}{10.1.2018}{4}</code>
<code>\options{12/21/12}{\noclass}</code>	<code>\options{21.12.2012}{\noclass}</code>
<code>\caltext{2/7/11}{Exam}</code>	<code>\caltext{7.2.2011}{Exam}</code>

Table 1: Comparison between plain `termcal` and `termcal` extended with `termcal-de`

ATTENTION!!

The date format *has* to be D.M.YYYY (or M/D/Y when using the `compat` option). This means that the *date specifications must not contain leading zeros*.

Examples: Use ...

5.1.2016	1/5/16	05.01.2016	01/05/16
9.11.2019	or 11/9/19	instead of 09.11.2019	or 11/09/19
14.3.2018	3/14/18	14.03.2018	03/14/18

Part II

The package code

Initialize

Identify the package and require $\LaTeX 2\epsilon$

```
1 \ProvidesPackage{termcal-de}[2018/03/16 v2.0 German locals to the termcal package]
2 \NeedsTeXFormat{LaTeX2e}
```

Require a basic set of packages

Require the “original” termcal package

```
3 \RequirePackage{termcal}
```

Require packages providing the key-value option stuff

```
4 \RequirePackage{pgfkeys}
5 \RequirePackage{pgfopts}
```

Define options

Define variables:

```
6 \newif\if@termcalde@compat
7 \newif\if@termcalde@drawbox
8 \newif\if@termcalde@dtmconf@frompreamble
9 \newif\if@termcalde@dtmconf@useregional
10 \newif\if@termcalde@dtmconf@numeric
```

Set variables to default values:

```
11 \@termcalde@compatfalse
12 \@termcalde@drawboxfalse
13 \@termcalde@dtmconf@frompreamblefalse
14 \@termcalde@dtmconf@useregionaltrue
15 \@termcalde@dtmconf@numerictrue
```

Define »variable commands«, p.r.n. with default values:

```
16 \def\termcalde@setdrawbox{}
17 \def\termcalde@dtmdialect{german}
```

Define a compat option for switching on compatibility mode

```
18 \pgfkeys{%
19   /termcal-de/compat/.cd, .is choice, .default=true,
20   true/.code={\@termcalde@compattrue},
21   false/.code={\@termcalde@compatfalse}}
```

Define a drawdateframe option for configuring whether a frame is drawn around the date:

`always` Always draw a frame around the date

`atNewMonth` Draw a frame around the date at the beginning of a month

`never` Never draw a frame around the date

```

22 \pgfkeys{%
23   /termcal-de/drawdateframe/.cd, .is choice, .default=always,
24   always/.code={\def\termcalde@setdrawbox{\@termcalde@drawboxtrue}},
25   atNewMonth/.code={\def\termcalde@setdrawbox{%
26     \ifnewmonth\@termcalde@drawboxtrue%
27     \else\@termcalde@drawboxfalse%
28     \fi}},
29   never/.code={\def\termcalde@setdrawbox{\@termcalde@drawboxfalse}}

```

Define a `datetime2` option for configuring `datetime2`:

local Defines which language module should be loaded.

Possible values are `german`, `de-DE`, `de-AT` and `de-CH` loading `datetime2-german's` according sub-module and `useregional`, which determines the used sub-module based on the language settings of `babel` or `polyglossia`

numeric Influences whether to use the numeric style when printing dates.

Possible values are `true` and `false`. Is the `numeric` key set without a value, it is assumed to be `true`.

frompreamble This option has to be set when `datetime2` is loaded in the preamble. Overrides all other options.

```

30 \pgfkeys{%
31   /termcal-de/datetime2/.code={\pgfkeys{/termcal-de/datetime2/.cd, #1}},
32   /termcal-de/datetime2/local/.cd, .is choice, .default=useregional,
33   useregional/.code={\@termcalde@dtmconf@useregionaltrue},
34   german/.code={%
35     \@termcalde@dtmconf@useregionalfalse%
36     \def\termcalde@dtmdialect{german}},
37   de-DE/.code={%
38     \@termcalde@dtmconf@useregionalfalse%
39     \def\termcalde@dtmdialect{de-DE}},
40   de-AT/.code={%
41     \@termcalde@dtmconf@useregionalfalse%
42     \def\termcalde@dtmdialect{de-AT}},
43   de-CH/.code={%
44     \@termcalde@dtmconf@useregionalfalse%
45     \def\termcalde@dtmdialect{de-CH}},
46   /termcal-de/datetime2/numeric/.cd, .is choice, .default=true,
47   true/.code={\@termcalde@dtmconf@numerictrue},
48   false/.code={\@termcalde@dtmconf@numericfalse},
49   /termcal-de/datetime2/frompreamble/.cd, .is choice, .default=true,
50   true/.code={\@termcalde@dtmconf@frompreambletrue},
51   false/.code={\@termcalde@dtmconf@frompreamblefalse}}

```

Process the options

```

52 \ProcessPgfPackageOptions{/termcal-de}

```

Require and configure `datetime2`

`\termcalde@dtmnumeric` Define an auxiliary command, adding `=numeric` to `datetime2's` `useregional` key and adding `-numeric` to `datetime2's` module names, depending on the current configuration

of `datetime2`

```
53 \def\termcalde@dtmnumeric{%
54   \if@termcalde@dtmconf@numeric%
55     \if@termcalde@dtmconf@useregional=\else-\fi%
56     numeric\fi}
```

Require `datetime2` for printing dates inside the calendar boxes and configure it as long as the `datetime2=frompreamble` key is not set.

```
57 \if@termcalde@dtmconf@frompreamble\RequirePackage{datetime2}%
58 \else%
59   \RequirePackage[%
60     \if@termcalde@dtmconf@useregional{useregional}%
61     \else\termcalde@dtmdialect\fi%
62     %
63     \if@termcalde@dtmconf@useregional\termcalde@dtmnumeric\fi]{datetime2}%
64 \fi
```

When `datetime2`'s language module is loaded by using the module name, a hook executing `\DTMsetstyle` at the begin of the document is required for setting the date style to the numeric format.

```
65 \if@termcalde@dtmconf@frompreamble%
66   \if@termcalde@dtmconf@useregional\else%
67     \if@termcalde@dtmconf@numeric%
68       \AtBeginDocument{\DTMsetstyle{\termcalde@dtmdialect\termcalde@dtmnumeric}}%
69 \fi\fi\fi
```

Redefinitions

`\setdate` Use D.M.YYYY instead of M/D/YY when entering dates from the code unless the `compat` option is given. Do *not* use leading zeros in date specifications!

```
70 \if@termcalde@compat\else%
71   \def\setdate@#1.#2.#3!{%
72     \setcounter{date}{#1}%
73     \setcounter{month}{#2}%
74     \setcounter{year}{#3}%
75     \global\newmonthtrue\setleap}%
76 \fi
```

`\curdate` This command is used internally by `termcal`.
Redefine `\curdate`'s output format to be the same as `\setdate`'s.
Remember: Do *not* use leading zeros in date specifications!

```
77 \if@termcalde@compat\else%
78   \def\curdate{\arabic{date}.\arabic{month}.\arabic{year}}%
79 \fi
```

`\currentdate` Provides a facility to print the date inside a cell's content.
The date format can be configured via configuring `\DTMdisplaydate`.

```
80 \def\currentdate{\DTMdisplaydate{%
81   \arabic{year}}{\arabic{month}}{\arabic{date}}{-1}}
```


`\calprintdate` Prints the date displayed in the cell heading.

The date format can be configured via configuring `\DTMDisplaydate`.

```
82 \def\calprintdate{%  
83   \termcalde@setdrawbox%  
84   \if@termcalde@drawbox\framebox{%  
85     \DTMDisplaydate{\arabic{year}}{\arabic{month}}{\arabic{date}}{-1}}%  
86   \else\DTMDisplaydate{\arabic{year}}{\arabic{month}}{\arabic{date}}{-1}}%  
87   \fi}
```

Change History

1.0		Introduce a compatibility option . . .	6
	General: Initial release		6
2.0		Key-Value-Options	6
	General: Configurable date frame	Require datetime2	7

Index

	C		
\calprntdate	9	drawdateframe	4, 6
compat	4, 6, 8		
\curdate	8	S	
\currentdate	8	\setdate	8
	D		
datetime2	4, 7	T	
		\termcalde@dtmnumeric	7