

# The termcal-de package

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

Sebastian Friedl  
sfr682k@t-online.de

2018/03/09 (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
<b>I The documentation</b>	<b>3</b>
<b>1 Getting started</b>	<b>3</b>
1.1 Loading the package . . . . .	3
1.2 Package options . . . . .	3
<b>2 A short tutorial</b>	<b>4</b>
<b>3 Differences to plain termcal</b>	<b>4</b>
<b>II The package code</b>	<b>6</b>
<b>Indices</b>	<b>10</b>

## Dependencies and other requirements

The `termcal-de` package requires  $\TeX 2_{\epsilon}$  and the following packages:

<code>termcal</code>	The main <code>termcal</code> package
<code>pgfkeys</code> <code>pgfopts</code>	Packages required for defining PGF flavoured key-value sets and processing them as package options
<code>datetime2</code> <code>datetime2-german</code>	<code>termcal-de</code> uses <code>datetime2</code> and its German language module, <code>datetime2-german</code> , to print the date to the calendar cells. Please ensure that at least version 2.0 of <code>datetime2-german</code> 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`

## File 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

**TODO:** Explain better how to interpret the option list and provide some basic examples

- key ..... possible, **values**  
**bold:** default behavior of `termcal-de` loaded without any options  
underline: value assumed when no value for key is given

#### 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 the same as in plain `termcal`.

`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.

In following, affected commands are listed:

- `\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. `4/16/17` for April 16, 2017). Due to redefinition in `termcal-de`, both arguments, `<starting date>` and `<date>` have to be given in the `D.M.YYYY` format (for April 16, 2017: `16.4.2017`).

See table 1 for some examples.

<b>plain termcal</b>	<b>with termcal-de package</b>
<code>\begin{calendar}{3/16/11}{4}</code>	<code>\begin{calendar}{16.3.2011}{4}</code>
<code>\options{12/21/12}{\noclass}</code>	<code>\options{21.12.2012}{\noclass}</code>
<code>\caltext{2/17/18}{Exam}</code>	<code>\caltext{17.2.2018}{Exam}</code>

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

## File II

# The package code

### Initialize

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

```
1 \ProvidesPackage{termcal-de}[2018/03/09 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

```
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

```
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 . . .	5
	General: Initial release . . . . .	Key-Value-Options . . . . .	5
2.0		Require datetime2 . . . . .	6
	General: Configurable date frame . . . .		6

## Index

	<b>C</b>		<b>P</b>
\calprintdate . . . . .	7	\pgfkeys . . . . .	2
compat . . . . .	3, 5, 7	\pgfopts . . . . .	2
\curdate . . . . .	7		
\currentdate . . . . .	7	<b>S</b>	
	<b>D</b>	\setdate . . . . .	7
datetime2 . . . . .	6		
\datetime2 . . . . .	2	<b>T</b>	
\datetime2-german . . . . .	2	\termcal . . . . .	2
drawdateframe . . . . .	3, 5	\termcalde@dtmnumeric . . . . .	6