German Module for the datetime2 Package

https://github.com/SFr682k/datetime2-german

Nicola L. C. Talbot (inactive)

Sebastian Friedl sfr682k@t-online.de

2017-10-03 (v2.0)

Abstract

This is the German language module for the datetime2 package. If you want to use the settings in this module you must install it in addition to installing datetime2. If you use babel or polyglossia, you will need this module to prevent them from redefining \today. The datetime2 useregional setting must be set to text or numeric for the language styles to be set. Alternatively, you can set the style in the document using \DTMsetstyle, but this may be changed by \date\language\range\range depending on the value of the useregional setting.

Currently there is a regionless style as well as variant styles (de-DE, de-AT and de-CH).

I'm only capable of German standard German. If I messed up anything in regards to format and/or spelling, or even a variant style with differences to the existing ones is missing, please create a feature request on GitHub or send me an e-mail.

I would be very grateful, if some examples and/or a list of the weekdays' and months' spelling is/are also provided.

Contents

| 1 | Installation | 3 | |
|----|---|----|--|
| Ι | The Documentation | 4 | |
| 2 | Setting up datetime2 with a language module | 4 | |
| | 2.1 Loading a language module | 4 | |
| | 2.2 Other features | 4 | |
| | 2.2.1 Showing the weekday | 4 | |
| | 2.2.2 Using abbreviated weekday and month names | 5 | |
| 3 | Style examples | 5 | |
| | 3.1 Regionless style | 5 | |
| | 3.2 German style (de-DE) | 5 | |
| | 3.3 Austrian style (de-AT) | 5 | |
| | 3.4 Swiss style (de-CH) | 5 | |
| 4 | Further customization of styles | | |
| 5 | License | 6 | |
| II | The Code | 7 | |
| 6 | Basic German module | 7 | |
| | 6.1 Weekday and month names (UTF-8) | 7 | |
| | 6.2 Weekday and month names (ASCII) | 10 | |
| | 6.3 Basic German Module (datetime2-german.ldf) | 13 | |
| 7 | German localization (de-DE, datetime2-de-DE.ldf) | | |
| 8 | Austrian German localization (de-AT, datetime2-de-AT.ldf) | 22 | |
| 9 | Swiss German localization (de-CH, datetime2-de-CH.ldf) | | |
| Cł | Change History | | |
| In | Index | | |

1 Installation

Extract the language definition files first:

- 1. Run MT_EX over the file datetime2-german.ins: latex datetime2-german.ins
- 2. Move all \star .ldf files to TEXMF/tex/latex/datetime2-contrib/datetime2-german/

Then, you can compile the documentation yourself by executing pdflatex datetime2-german.dtx makeindex -s gind.ist datetime2-german.idx makeindex -s gglo.ist -o datetime2-german.gls datetime2-german.glo pdflatex datetime2-german.dtx pdflatex datetime2-german.dtx

or just use the precompiled documentation shipped with the sorce files. In both cases, copy the files datetime2-german.pdf and README.md to TEXMF/doc/latex/datetime2-contrib/datetime2-german/

File I

The Documentation

2 Setting up datetime2 with a language module

2.1 Loading a language module

There are three different ways to load the required language module. See the datetime2 documentation for further details

Variant 1:

Request the desired language module explicitly by passing the german, de-DE, de-AT or de-CH option to the datetime2 package:

```
\documentclass{article}
\usepackage[german]{datetime2}
\begin{document}
\today
\end{document}
```

Variant 2:

Load babel and pass the german, austrian or swissgerman option to the \documentclass command (or to babel directly). If you now pass the useregional option to datetime2, the language module suitable to the one specified with babel is loaded:

```
\documentclass[german]{article}
\usepackage{babel}
\usepackage[useregional]{datetime2}
\begin{document}
\today
\end{document}
```

Variant 3:

When using polyglossia, you should request the desired language module by passing the german, de-DE, de-AT or de-CH option to the datetime2 package:

```
\documentclass{article}
\usepackage{polyglossia}
\setmainlanguage{german}
\usepackage[german]{datetime2}
\begin{document}
\today
\end{document}
```

2.2 Other features

2.2.1 Showing the weekday

All language modules shipped with datetime2-german support showing the weekday. To enable this feature, pass the showdow option to the datetime2 package. Please note, that this has no effect when using the numeric style of the de-AT variant.

2.2.2 Using abbreviated weekday and month names

To enable abbreviated weekday and month names, use \DTMlangsetup[german]{abbr}. To disable them, use \DTMlangsetup[german]{abbr=false}.

In both cases, replace german with the used variant style (de-DE, de-AT or de-CH). Please note, that this has no effect when using the numeric style of the de-AT variant.

3 Style examples

3.1 Regionless style

• Non-numeric style:

3. Oktober 2017, 12:51:04 MESZ

3. Okt. '17, 12:51:04 MESZ Dienstag, 3. Oktober 2017, 12:51:04 MESZ

Di, 3. Okt. '17, 12:51:04 MESZ

abbreviated version with showdow option

abbreviated version with showdow option

• Numeric style:

03.10.2017, 12:51:04 MESZ 03.10.17, 12:51:04 MESZ Dienstag, 03.10.2017, 12:51:04 MESZ Di, 03.10.17, 12:51:04 MESZ

abbreviated version with showdow option abbreviated version with showdow option

3.2 German style (de-DE)

• Non-numeric style:

3. Oktober 2017, 12:51:04 MESZ

3. Okt. '17, 12:51:04 MESZ

Dienstag, 3. Oktober 2017, 12:51:04 MESZ

Di, 3. Okt. '17, 12:51:04 MESZ

abbreviated version with showdow option abbreviated version with showdow option

abbreviated version

• Numeric style:

03.10.2017, 12:51:04 MESZ 03.10.17, 12:51:04 MESZ

Dienstag, 03.10.2017, 12:51:04 MESZ

Di, 03.10.17, 12:51:04 MESZ

with showdow option abbreviated version with showdow option

3.3 Austrian style (de-AT)

• Non–numeric style:

3. Oktober 2017, 12:51:04 MESZ

3. Okt. 2017, 12:51:04 MESZ

Dienstag, 3. Oktober 2017, 12:51:04 MESZ

Di, 3. Okt. 2017, 12:51:04 MESZ

abbreviated version with showdow option abbreviated version with showdow option

• Numeric style: 2017-10-03, 12:51:04 MESZ

3.4 Swiss style (de-CH)

• Non–numeric style:

3. Oktober 2017, 12.51.04 Uhr MESZ

3. Okt. 2017, 12.51.04 Uhr MESZ Dienstag, 3. Oktober 2017, 12.51.04 Uhr MESZ Di, 3. Okt. 2017, 12.51.04 Uhr MESZ abbreviated version with showdow option abbreviated version with showdow option

Numeric style:
 03.10.2017, 12.51.04 Uhr MESZ
 03.10.17, 12.51.04 Uhr MESZ
 Dienstag, 03.10.2017, 12.51.04 Uhr MESZ
 Di, 03.10.17, 12.51.04 Uhr MESZ

abbreviated version with showdow option abbreviated version with showdow option

4 Further customization of styles

There are a number of settings provided that can be used in \DTMlangsetup to modify the date-time style. These are:

dowdaysep The separator between the day of week name and the day of month number.

daymonthsep The separator between the day and the month name

monthyearsep The separator between the month name and year

datesep The separator between the date numbers in the numeric styles

timesep The separator between hours, minutes and seconds

datetimesep The separator between the date and time for the full date-time format

timezonesep The separator between the time and zone for the full date-time format

abbr This is a boolean key. If true, the month (and weekday name, if shown) is abbreviated.

mapzone This is a boolean key. If true, the time zone mappings are applied.

showdayofmonth A boolean key that determines whether or not to show the day of the month

showyear A boolean key that determines whether or not to show the year

Although the keys listed here are *defined* for all variant styles, it depends on datetime2's setup and the requested styles whether they're *used*.

For more information about the \DTMlangsetup command see the documentation of the main datetime2 package.

5 License

This material is subject to the MEX Project Public License, Version 1.3c or later. See the copyright headers of the single files for further details.

File II

The Code

6 **Basic German module**

This module defines the "basic" German style, which contains the necessary vocab for all German localizations.

The date and time format is based on the de-DE variant.

Weekday and month names (UTF-8)

This file contains the settings that use UTF-8 characters. This file is loaded if X7ETFX or LuaETFX are used. Please make sure your text editor is set to UTF-8 if you want to view this code. Identify module

1\ProvidesDateTimeModule{german-utf8}[2017/10/03 v2.0]

\DTMgermanordinal

```
2\newcommand*{\DTMgermanordinal}[1]{%
3 \number#1
```

4 }

\DTMgermanmonthname

German month names.

```
5 \newcommand*{\DTMgermanmonthname}[1]{%
```

- \ifcase#1
- \or
- Januar%
- \or
- 10 Februar%
- \or
- 12 März%
- 13 \or
- April% 14
- \or 15
- Mai% 16
- 17 \or
- 18 Juni%
- 19 Juli%
- 20 \or 21
- 22 August%
- 23 \or
- September%
- Oktober% 26
- 27 \or
- November% 28
- \or 29
- Dezember% 30
- 32 }

\DTMdeATmonthname Austrian German month names. Spot the difference :D

33 \newcommand*{\DTMdeATmonthname}[1]{%

```
\ifcase#1
```

- \or 35
- 36 Jänner%
- 37 \or
- Februar% 38
- 39 \or
- März% 40
- \or
- April%
- 43 \or
- 44 Mai%
- \or 45
- Juni% 46
- \or
- 47
- Juli% 48
- 49
- 50 August%
- 51 \or
- 52 September%
- \or 53
- Oktober% 54
- \or
- November% 56
- 57 \or
- Dezember% 58
- 59 \fi
- 60 }

\DTMgermanshortmonthname

Abbreviated German month names.

- $61 \mbox{ newcommand} {\DTMgermanshortmonthname}[1]{\%}$
- 62 \ifcase#1
- \or 63
- 64 Jan.%
- 65 \or
- 66 Febr.%
- 67 \or
- März% 68
- 69 \or
- April% 70
- \or
- 72 Mai%
- 73 \or
- Juni% 74
- \or 75
- Juli% 76
- 77 \or
- 78 Aug.%
- 79 \or
- Sep.% 80
- 81 \or
- Okt.% 82
- 83 \or
- Nov.% 84
- 85 \or
- 86 Dez.%
- \fi 87
- 88 }

\DTMdeATshortmonthname Abbreviated Austrian German month names. 89 \newcommand*{\DTMdeATshortmonthname}[1]{% \ifcase#1 \or 91 Jän.% 92 \or 93 Febr.% 94 95 96 März% 97 \or April% 98 99 \or Mai% 100 101 \or Juni% \or 103 Juli% 104 \or 105 Aug.% 106 107 \or 108 Sep.% 109 \or Okt.% 110 111 \or Nov.% 112 113 \or Dez.% 114 115 \fi 116 } \DTMgermanweekdayname Provides weekday names 117 \newcommand*{\DTMgermanweekdayname}[1]{% 118 \ifcase#1 119 Montag% 120 \or 121 Dienstag% 122 123 Mittwoch% 124 \or 125 Donnerstag% 126 \or 127 Freitag% 128 129 Samstag% 130 Sonntag% 131 132 \fi 133 } \DTMgermanshortweekdayname Provides abbreviated weekday names 134 \newcommand*{\DTMgermanshortweekdayname}[1]{% 135 \ifcase#1 136 Mo% 137 \or

138 Di% 139 \or

```
Mi%
140
141
     \or
     Do%
142
143
     \or
     Fr%
144
145
     \or
146
     Sa%
147
     \or
148
     So%
149
     \fi
150 }
```

6.2 Weekday and month names (ASCII)

This file contains the settings that use MEX commands for non-ASCII characters. This should be input if neither XHMEX nor LuaMEX are used. Even if the user has loaded inputenc with utf8, this file should still be used not the datetime2-german-utf8.ldf file as the non-ASCII characters are made active in that situation and would need protecting against expansion. Identify module

151 \ProvidesDateTimeModule{german-ascii}[2017/10/03 v2.0]

\DTMgermanordinal

```
152 \newcommand*{\DTMgermanordinal}[1]{%
153 \number#1
154 }
```

\DTMgermanmonthname

German month names.

```
155 \newcommand*{\DTMgermanmonthname}[1]{%
    \ifcase#1
     \or
157
158
     Januar%
159
    Februar%
160
161
    \or
    M\protect\"arz%
162
163
    \or
    April%
    \or
    Mai%
166
167
    \or
    Juni%
168
169
     \or
     Juli%
170
171
     \or
172
    August%
173
     \or
174
    September%
    \or
175
    Oktober%
176
177
     \or
    November%
    Dezember%
180
     \fi
181
182 }
```

\DTMdeATmonthname Austrian German month names.

- 183 \newcommand*{\DTMdeATmonthname}[1]{%
- 184 \ifcase#1
- 185 \or
- J\protect\"anner% 186
- \or 187
- Februar% 188
- 189
- M\protect\"arz% 190
- \or 191
- April% 192
- 193 \or
- Mai% 194
- 195 \or
- Juni%
- 197 \or
- Juli% 198
- \or 199
- August% 200
- 201 \or
- 202 September%
- 203 \or
- 204 Oktober%
- \or 205
- November% 206
- 207 \or
- Dezember% 208
- 209 \fi
- 210 }

$\verb|\DTMgermanshortmonthname| Abbreviated German month names.$

- 211 \newcommand*{\DTMgermanshortmonthname}[1]{%
- 212 \ifcase#1
- 213 \or
- Jan.% 214
- 215 \or
- 216 Febr.%
- 217 \or
- 218 M\protect\"arz%
- 219 \or
- April% 220
- 221 \or
- 222 Mai%
- 223 \or
- 224 Juni%
- \or 225
- Juli% 226
- 227 \or 228 Aug.%
- \or
- Sep.% 230
- 231 \or
- 232 Okt.%
- 233 \or
- 234 Nov.%
- 235 \or

```
236 Dez.%
                            237
                                \fi
                            238 }
   \DTMdeATshortmonthname Abbreviated Austrian German month names.
                            239 \newcommand*{\DTMdeATshortmonthname}[1]{%
                                \ifcase#1
                            240
                                 \or
                            241
                                 J\protect\"n.%
                            242
                            243
                                 Febr.%
                            245
                                 \or
                                M\protect\"arz%
                            246
                                \or
                            247
                                April%
                            248
                            249
                                \or
                            250
                                Mai%
                                \or
                            252 Juni%
                                \or
                            253
                                Juli%
                            254
                            255
                                 \or
                                Aug.%
                            256
                            257
                                 \or
                            258
                                 Sep.%
                                 \or
                            259
                            260
                                Okt.%
                            261
                                \or
                                Nov.%
                            262
                            263
                                \or
                                Dez.%
                            265
                                \fi
                            266 }
     \DTMgermanweekdayname Provides weekday names
                            267 \newcommand*{\DTMgermanweekdayname}[1]{%
                            268 \ifcase#1
                            269
                                Montag%
                                \or
                                Dienstag%
                            271
                            272
                                \or
                            273
                                Mittwoch%
                                 \or
                            274
                                 Donnerstag%
                            275
                            276
                                 \or
                            277
                                Freitag%
                            278
                                 \or
                            279
                                 Samstag%
                            280
                                \or
                            281
                                 Sonntag%
                            282
                                 \fi
                            283 }
\DTMgermanshortweekdayname Provides abbreviated weekday names
                            284 \newcommand*{\DTMgermanshortweekdayname}[1]{%
```

285 \ifcase#1

```
Mo%
286
287
     \or
288
    Di%
289
    \or
    Mi%
290
291
    \or
292
    Do%
    \or
    Fr%
295
    \or
296
    Sa%
297
    \or
    So%
298
    \fi
299
300 }
```

6.3 Basic German Module (datetime2-german.ldf)

```
Identify Module
```

```
301 \ProvidesDateTimeModule{german}[2017/10/03 v2.0]
```

Need to find out if X₇T_FX or LuaT_FX are being used.

```
302 \RequirePackage{ifxetex,ifluatex}
```

X₄T_EX and LuaT_EX natively support UTF-8, so load german-utf8 if either of those engines are used otherwise load german-ascii.

```
303 \ifxetex
304 \RequireDateTimeModule{german-utf8}
305 \else
306 \ifluatex
307 \RequireDateTimeModule{german-utf8}
308 \else
309 \RequireDateTimeModule{german-ascii}
310 \fi
311 \fi
```

Define the german style.

Allow the user a way of configuring the german and german-numeric styles. This doesn't use the package wide separators such as \dtm@datetimesep in case other date formats are also required.

```
\DTMgermandowdaysep The separator between weekday and day
```

312 \newcommand*{\DTMgermandowdaysep}{,\space}

\DTMgermandaymonthsep The separator between the day and month for the text format.

313 \newcommand*{\DTMgermandaymonthsep}{.\DTMtexorpdfstring{\protect~}{\space}}

\DTMgermanmonthyearsep The separator between the month and year for the text format.

314 \newcommand*{\DTMgermanmonthyearsep}{\space}

\DTMgermandatetimesep The separator between the date and time blocks in the full format (either text or numeric).

315 \newcommand*{\DTMgermandatetimesep}{,\space}

\DTMgermantimezonesep The separator between the time and zone blocks in the full format (either text or numeric).

316 \newcommand*{\DTMgermantimezonesep}{\space}

\DTMgermandatesep The separator for the numeric date format.

317 \newcommand*{\DTMgermandatesep}{.}

```
The separator for the numeric time format.
\DTMgermantimesep
                                         318 \newcommand*{\DTMgermantimesep}{:}
                                         Provide keys that can be used in \DTMlangsetup to set these separators.
                                         319 \DTMdefkey{german}{dowdaysep}{\renewcommand*{\DTMgermandowdaysep}{#1}}
                                         320 \DTMdefkey{german}{daymonthsep}{\renewcommand*{\DTMgermandaymonthsep}{\#1}}
                                         {\tt 321 \DTMdefkey{german}\{monthyearsep}{\{\mbox{\tt monthyearsep}\}\{\mbox{\tt monthyearsep}\}\}} \\
                                         322 \DTMdefkey{german}{datetimesep}{\renewcommand*{\DTMgermandatetimesep}{#1}}
                                         323 \DTMdefkey{german}{timezonesep}{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalfootnote{\normalf
                                         324 \DTMdefkey{german}{datesep}{\renewcommand*{\DTMgermandatesep}{#1}}
                                         325 \DTMdefkey{german}{timesep}{\renewcommand*{\DTMgermantimesep}{#1}}
                                         Define a boolean key that can switch between full and abbreviated formats for the month and
                                         day of week names in the text format.
                                         326 \DTMdefboolkey{german}{abbr}[true]{}
                                         The default is full name
                                         327 \DTMsetbool{german}{abbr}{false}
                                         Define a boolean key that determines if the time zone mappings should be used.
                                         328 \DTMdefboolkey{german}{mapzone}[true]{}
                                         The default is to use mappings.
                                         329 \DTMsetbool{german}{mapzone}{true}
                                         Define a boolean key that determines if the day of month should be displayed.
                                         330 \DTMdefboolkey{german}{showdayofmonth}[true]{}
                                         The default is to show the day of month.
                                         331 \DTMsetbool{german}{showdayofmonth}{true}
                                         Define a boolean key that determines if the year should be displayed.
                                         332 \DTMdefboolkey{german}{showyear}[true]{}
                                         The default is to show the year.
                                         333 \DTMsetbool{german}{showyear}{true}
                                         Define the german style.
                                         334 \DTMnewstyle
                                         335 {german}% label
                                         336 {% date style
                                                     \renewcommand*\DTMdisplaydate[4]{%
                                                         \ifDTMshowdow
                                         338
                                                              \ifnum##4>-1
                                         339
                                                                  \DTMifbool{german}{abbr}%
                                         340
                                         341
                                                                 {\DTMgermanshortweekdayname{##4}}%
                                                                 {\DTMgermanweekdayname{##4}}%
                                         342
                                                                  \DTMgermandowdaysep
                                         343
                                                             \fi
                                         344
                                                         \fi
```

\DTMifbool{german}{showdayofmonth}%

{\DTMgermanshortmonthname{##2}}%
{\DTMgermanmonthname{##2}}%

\DTMifbool{german}{abbr}%

{\DTMgermanordinal{##3}\DTMgermandaymonthsep}%

345 346

347

348

349 350

351 352

354

{}%

%

```
\verb|\DTMifbool{german}| showyear| %
355
356
                           \DTMgermanmonthyearsep%
357
                           \DTMifbool{german}{abbr}%
358
                           {'\DTMtwodigits{##1}}%
359
                           {\number##1 }% space intended
360
                     }%
361
362
                    {}%
363
364
               \renewcommand*\DTMDisplaydate[4]{%
365
                     \ifDTMshowdow
                           \ifnum##4>-1
366
                                \DTMifbool{german}{abbr}%
367
                                {\tt \{\DTMgermanshortweekdayname\{\#44\}\}\%}
368
                                {\DTMgermanweekdayname{##4}}%
                                \DTMgermandowdaysep
370
371
                     \fi
372
373
                     \verb|\DTMifbool{german}| showday of month| %
374
                     {\DTMgermanordinal{##3}\DTMgermandaymonthsep}%
375
376
377
                     \DTMifbool{german}{abbr}%
378
                     {\DTMgermanshortmonthname{##2}}%
379
                     {\tt \{\DTMgermanmonthname{\#42}}\%
380
381
                    %
                     \DTMifbool{german}{showyear}%
382
383
                     {%
                           \DTMgermanmonthyearsep%
384
                           \DTMifbool{german}{abbr}%
385
                           {'\DTMtwodigits{##1}}%
386
                          {\text{number##1 }}\% \text{ space intended}
387
388
                     }%
                    {}%
390
                  }
               }%
391
          {% time style (use default)
392
               \renewcommand*\DTMdisplaytime[3]{%
393
                  \DTMtwodigits{##1}%
394
                  \DTMgermantimesep\DTMtwodigits{##2}%
395
                  \ifDTMshowseconds\DTMgermantimesep\DTMtwodigits{##3}\fi
397
               }%
         }%
398
         {% zone style
399
               \DTMresetzones
400
401
               \DTMgermanzonemaps
               \renewcommand*{\DTMdisplayzone}[2]{%
403
                     \DTMifbool{german}{mapzone}%
404
                     {\DTMusezonemapordefault{##1}{##2}}%
405
                           \ifnum##1<0\else+\fi\DTMtwodigits{##1}%
406
                           \verb|\ifDTMshowzoneminutes|| DTMgermantimesep|| DTMtwodigits{##2} \\ | fill if the property of t
407
408
409
               }%
410 }%
```

```
411 {% full style
      \renewcommand*{\DTMdisplay}[9]{%
412
       \ifDTMshowdate
413
        \DTMdisplaydate{##1}{##2}{##3}{##4}%
414
        \DTMgermandatetimesep
415
       \fi
416
       \label{local_decomposition} $$ \operatorname{DTMdisplaytime}{\#5}{\#\#6}{\#\#7}\%$ 
417
418
       \ifDTMshowzone
        \DTMgermantimezonesep
419
420
        \DTMdisplayzone{##8}{##9}%
       \fi
421
      }%
422
      \renewcommand*{\DTMDisplay}[9]{%
423
       \ifDTMshowdate
424
        \label{lower} $$ DTMDisplaydate{##1}{##2}{##3}{##4}% $$
425
        \DTMgermandatetimesep
426
427
       \DTMdisplaytime{##5}{##6}{##7}%
428
       \ifDTMshowzone
429
        \DTMgermantimezonesep
430
431
        \DTMdisplayzone{##8}{##9}%
432
       \fi
433
     }%
434 }%
Define numeric style.
435 \DTMnewstyle
436 {german-numeric}% label
   {% date style
       \verb|\renewcommand*\DTMdisplaydate[4]{%}|
438
         \ifDTMshowdow
439
           \ifnum##4>-1
440
              \DTMifbool{german}{abbr}%
441
             {\DTMgermanshortweekdayname{##4}}%
442
             {\DTMgermanweekdayname{##4}}%
443
             \verb|\DTMgermandowdaysep||
444
           \fi
445
         \fi
446
447
         \DTMifbool{german}{showdayofmonth}%
448
         {%
449
           \DTMtwodigits{##3}%
450
           \DTMgermandatesep
451
         }%
452
453
         {}%
         \DTMtwodigits{##2}%
454
         \DTMgermandatesep%
455
         \verb|\DTMifbool{german}{ showyear}|%
456
         {%
457
458
           \DTMifbool{german}{abbr}%
           {\DTMtwodigits{##1}}%
           {\number##1 }% space intended
460
         }%
461
         {}%
462
       }%
463
       464
465 }%
```

```
466 {% time style
       \renewcommand*\DTMdisplaytime[3]{%
467
         \DTMtwodigits{##1}%
468
         \DTMgermantimesep\DTMtwodigits{##2}%
469
470
         \ifDTMshowseconds\DTMgermantimesep\DTMtwodigits{##3}\fi
      }%
471
472 }%
473 {% zone style
474
      \DTMresetzones
475
      \DTMgermanzonemaps
      \renewcommand*{\DTMdisplayzone}[2]{%
476
        \DTMifbool{german}{mapzone}%
477
        {\DTMusezonemapordefault{##1}{##2}}%
478
        {%
479
          \ifnum##1<0\else+\fi\DTMtwodigits{##1}%
480
          \ifDTMshowzoneminutes\DTMgermantimesep\DTMtwodigits{##2}\fi
481
482
        }%
483
     }%
484 }%
485 {% full style
      \renewcommand*{\DTMdisplay}[9]{%
486
       \ifDTMshowdate
488
        \DTMdisplaydate{##1}{##2}{##3}{##4}%
        \DTMgermandatetimesep
489
490
       \DTMdisplaytime{##5}{##6}{##7}%
491
       \ifDTMshowzone
492
493
        \DTMgermantimezonesep
        \DTMdisplayzone{##8}{##9}%
494
495
       \fi
496
      }%
      \renewcommand*{\DTMDisplay}{\DTMdisplay}%
497
498 }
```

\DTMgermanzonemaps

The time zone mappings are set through this command, which can be redefined if extra mappings are required or mappings need to be removed.

```
499 \newcommand*{\DTMgermanzonemaps}{%
500 \DTMdefzonemap{01}{00}{MEZ}%
501 \DTMdefzonemap{02}{00}{MESZ}%
502 }
```

Switch style according to the useregional setting.

```
503 \DTMifcaseregional
504{}% do nothing
505 {\DTMsetstyle{german}}
506 {\DTMsetstyle{german-numeric}}
```

Redefine $\del{dialect}$ to prevent babel from resetting $\del{dialect}$. (For this to work, babel must already have been loaded if it's required.)

```
507\ifcsundef{date\CurrentTrackedDialect}
508 {%
509 \ifundef\dategerman
510 {% do nothing
511 }%
512 {%
513 \def\dategerman{%
514 \DTMifcaseregional
```

```
{}% do nothing
515
         {\DTMsetstyle{german}}%
516
         {\DTMsetstyle{german-numeric}}%
517
       }%
518
    }%
519
520 }%
521 {%
     \csdef{date\CurrentTrackedDialect}{%
522
       \DTMifcaseregional
523
524
       {}% do nothing
525
       {\DTMsetstyle{german}}%
       {\DTMsetstyle{german-numeric}}
526
527 }%
528 }%
```

7 German localization (de-DE, datetime2-de-DE.ldf)

```
Identify Module
```

```
529 \ProvidesDateTimeModule{de-DE}[2017/10/03 v2.0]
```

Require the basic German module

530 \RequireDateTimeModule{german}

Allow the user a way of configuring the de-DE and de-DE-numeric styles. This doesn't use the package wide separators such as \dtm@datetimesep in case other date formats are also required.

\DTMdeDEdowdaysep The separator between weekday and day

531 \newcommand*{\DTMdeDEdowdaysep}{,\space}

\DTMdeDEdaymonthsep The separator between the day and month for the text format.

532 \newcommand*{\DTMdeDEdaymonthsep}{.\DTMtexorpdfstring{\protect^}{\space}}

\DTMdeDEmonthyearsep The separator between the month and year for the text format.

533 \newcommand*{\DTMdeDEmonthyearsep}{\space}

\DTMdeDEdatetimesep The separator between the date and time blocks in the full format (either text or numeric).

534 \newcommand*{\DTMdeDEdatetimesep}{,\space}

\DTMdeDEtimezonesep The separator between the time and zone blocks in the full format (either text or numeric).

535 \newcommand*{\DTMdeDEtimezonesep}{\space}

\DTMdeDEdatesep The separator for the numeric date format.

536 \newcommand*{\DTMdeDEdatesep}{.}

\DTMdeDEtimesep The separator for the numeric time format.

537 \newcommand*{\DTMdeDEtimesep}{:}

Provide keys that can be used in \DTMlangsetup to set these separators.

```
538 \DTMdefkey{de-DE}{dowdaysep}{\renewcommand*{\DTMdeDEdowdaysep}{#1}}
539 \DTMdefkey{de-DE}{daymonthsep}{\renewcommand*{\DTMdeDEdaymonthsep}{#1}}
540 \DTMdefkey{de-DE}{monthyearsep}{\renewcommand*{\DTMdeDEmonthyearsep}{#1}}
541 \DTMdefkey{de-DE}{datetimesep}{\renewcommand*{\DTMdeDEdatetimesep}{#1}}
542 \DTMdefkey{de-DE}{timezonesep}{\renewcommand*{\DTMdeDEtimezonesep}{#1}}
543 \DTMdefkey{de-DE}{datesep}{\renewcommand*{\DTMdeDEdatesep}{#1}}
544 \DTMdefkey{de-DE}{timesep}{\renewcommand*{\DTMdeDEtimesep}{#1}}
```

```
Define a boolean key that can switch between full and abbreviated formats for the month and day of week names in the text format.
```

```
545 \DTMdefboolkey{de-DE}{abbr}[true]{}
The default is full name
546 \DTMsetbool{de-DE}{abbr}{false}
Define a boolean key that determines if the time zone mappings should be used.
547 \DTMdefboolkey{de-DE}{mapzone}[true]{}
The default is to use mappings.
548 \DTMsetbool{de-DE}{mapzone}{true}
Define a boolean key that determines if the day of month should be displayed.
549 \DTMdefboolkey{de-DE}{showdayofmonth}[true]{}
The default is to show the day of month.
550 \DTMsetbool{de-DE}{showdayofmonth}{true}
Define a boolean key that determines if the year should be displayed.
551 \DTMdefboolkey{de-DE}{showyear}[true]{}
The default is to show the year.
552 \DTMsetbool{de-DE}{showyear}{true}
Define the de-DE style
553 \DTMnewstyle
554 {de-DE}% label
555 {% date style
    \renewcommand*\DTMdisplaydate[4]{%
557
       \ifDTMshowdow
         \ifnum##4>-1
558
           \DTMifbool{de-DE}{abbr}%
559
560
           {\DTMgermanshortweekdayname{##4}}%
561
           {\DTMgermanweekdayname{##4}}%
           \DTMdeDEdowdaysep
562
         \fi
563
       \fi
564
565
566
       \DTMifbool{de-DE}{showdayofmonth}%
567
       {\DTMgermanordinal{##3}\DTMdeDEdaymonthsep}%
568
       {}%
569
570
       \DTMifbool{de-DE}{abbr}%
571
       {\DTMgermanshortmonthname{##2}}%
572
       {\DTMgermanmonthname{##2}}%
573
       \DTMifbool{de-DE}{showyear}%
574
575
       {%
         \DTMdeDEmonthyearsep%
576
577
         \DTMifbool{de-DE}{abbr}%
578
         {'\DTMtwodigits{##1}}%
579
         {\number##1 }% space intended
       }%
580
      {}%
581
582
     \renewcommand*\DTMDisplaydate[4]{%
583
584
       \ifDTMshowdow
585
         \ifnum##4>-1
```

```
\DTMifbool{de-DE}{abbr}%
586
           {\DTMgermanshortweekdayname{##4}}%
587
           {\DTMgermanweekdayname{##4}}%
588
           \DTMdeDEdowdaysep
589
         \fi
590
       \fi
591
       %
592
       \DTMifbool{de-DE}{showdayofmonth}%
593
       {\DTMgermanordinal{##3}\DTMdeDEdaymonthsep}%
594
595
       {}%
596
       \DTMifbool{de-DE}{abbr}%
597
       {\DTMgermanshortmonthname{##2}}%
598
       {\tt \{\DTMgermanmonthname\{\#\#2\}\}\%}
599
600
       \DTMifbool{de-DE}{showyear}%
601
602
       {%
603
         \DTMdeDEmonthyearsep%
         \DTMifbool{de-DE}{abbr}%
604
         {'\DTMtwodigits{##1}}%
605
606
         {\number##1 }% space intended
607
       }%
608
       {}%
   }
609
610 }%
611 {% time style (use default)
    \renewcommand*\DTMdisplaytime[3]{%
613
       \DTMtwodigits{##1}%
       \DTMdeDEtimesep\DTMtwodigits{##2}%
614
       \ifDTMshowseconds\DTMdeDEtimesep\DTMtwodigits{##3}\fi
615
616
    }%
617 }%
618 {% zone style
    \DTMresetzones
    \DTMgermanzonemaps
621
     \renewcommand*{\DTMdisplayzone}[2]{%
       \DTMifbool{de-DE}{mapzone}%
622
       {\DTMusezonemapordefault{##1}{##2}}%
623
624
       {%
         \ifnum##1<0\else+\fi\DTMtwodigits{##1}%
625
         \ifDTMshowzoneminutes\DTMdeDEtimesep\DTMtwodigits{##2}\fi
626
627
       }%
628
    }%
629 }%
630 {% full style
    \renewcommand*{\DTMdisplay}[9]{%
       \ifDTMshowdate
632
633
         \DTMdisplaydate{##1}{##2}{##3}{##4}%
634
         \DTMdeDEdatetimesep
635
       \DTMdisplaytime{##5}{##6}{##7}%
636
       \ifDTMshowzone
637
         \DTMdeDEtimezonesep
638
         \DTMdisplayzone{##8}{##9}%
639
640
       \fi
641
    }%
```

```
\renewcommand*{\DTMDisplay}[9]{%
642
643
      \ifDTMshowdate
        \DTMDisplaydate{##1}{##2}{##3}{##4}%
644
        \DTMdeDEdatetimesep
645
      \fi
646
      \DTMdisplaytime{##5}{##6}{##7}%
647
      \ifDTMshowzone
648
        \DTMdeDEtimezonesep
649
650
        \DTMdisplayzone{##8}{##9}%
651
      \fi
    }%
652
653 }%
Define numeric style.
654 \DTMnewstyle
655 {de-DE-numeric}% label
656 {% date style
    \renewcommand*\DTMdisplaydate[4]{%
657
      \ifDTMshowdow
        \ifnum##4>-1
659
660
           \DTMifbool{de-DE}{abbr}%
661
          {\DTMgermanshortweekdayname{##4}}%
          {\DTMgermanweekdayname{##4}}%
662
           \DTMdeDEdowdaysep
663
        \fi
664
      \fi
665
666
      \DTMifbool{de-DE}{showdayofmonth}%
667
      {%
668
        \DTMtwodigits{##3}%
669
        \DTMdeDEdatesep
670
      }%
671
      {}%
672
673
      \DTMtwodigits{##2}%
674
      \DTMdeDEdatesep%
675
      \DTMifbool{de-DE}{showyear}%
676
        \DTMifbool{de-DE}{abbr}%
677
678
        {\DTMtwodigits{##1}}%
        {\number##1 }% space intended
679
      }%
680
      {}%
681
682
      }%
    683
684 }%
685 {% time style
686
    \renewcommand*\DTMdisplaytime[3]{%
687
      \DTMtwodigits{##1}%
      \DTMdeDEtimesep\DTMtwodigits{##2}%
688
      \ifDTMshowseconds\DTMdeDEtimesep\DTMtwodigits{##3}\fi
689
690
    }%
691 }%
692 {% zone style
    \DTMresetzones
    \DTMgermanzonemaps
694
    \renewcommand*{\DTMdisplayzone}[2]{%
695
      \DTMifbool{de-DE}{mapzone}%
696
```

```
{\DTMusezonemapordefault{##1}{##2}}%
697
698
         \ifnum##1<0\else+\fi\DTMtwodigits{##1}%
699
         \ifDTMshowzoneminutes\DTMgermantimesep\DTMtwodigits{##2}\fi
700
       }%
701
702
    }%
703 }%
704 {% full style
    \renewcommand*{\DTMdisplay}[9]{%
706
       \ifDTMshowdate
         \DTMdisplaydate{##1}{##2}{##3}{##4}%
707
         \DTMdeDEdatetimesep
708
709
       \DTMdisplaytime{##5}{##6}{##7}%
710
       \ifDTMshowzone
         \DTMdeDEtimezonesep
712
         \DTMdisplayzone{##8}{##9}%
713
714
    }%
715
     \renewcommand*{\DTMDisplay}{\DTMdisplay}%
716
Switch style according to the useregional setting.
718 \DTMifcaseregional
    {}% do nothing
    {\DTMsetstyle{de-DE}}
     {\DTMsetstyle{de-DE-numeric}}
Redefine \forall dategerman (or \forall date\langle dialect\rangle) to prevent babel from resetting \forall today. (For this to
work, babel must already have been loaded if it's required.)
722 \ifcsundef{date\CurrentTrackedDialect}
723 {%
724 \ifundef\dategerman
    {% do nothing
725
726
     }%
727
     {%
       \def\dategerman{%
728
         \DTMifcaseregional
729
         {}% do nothing
730
         {\DTMsetstyle{german}}%
731
         {\DTMsetstyle{german-numeric}}%
732
734 }%
735 }%
736 {%
     \csdef{date\CurrentTrackedDialect}{%
737
       \DTMifcaseregional
738
739
       {}% do nothing
       {\DTMsetstyle{de-DE}}%
       {\DTMsetstyle{de-DE-numeric}}
742 }%
743 }%
```

8 Austrian German localization (de-AT, datetime2-de-AT.ldf)

Identify Module

744 \ProvidesDateTimeModule{de-AT}[2017/10/03 v2.0]

Require the basic German module

745 \RequireDateTimeModule{german}

Allow the user a way of configuring the de-AT and de-AT-numeric styles. This doesn't use the package wide separators such as \dtm@datetimesep in case other date formats are also required.

\DTMdeATdowdaysep The separator between weekday and day

746 \newcommand*{\DTMdeATdowdaysep}{,\space}

\DTMdeATdaymonthsep The separator between the day and month for the text format.

747 \newcommand*{\DTMdeATdaymonthsep}{.\DTMtexorpdfstring{\protect $^$ }{\space}}

\DTMdeATmonthyearsep The separator between the month and year for the text format.

748 \newcommand*{\DTMdeATmonthyearsep}{\space}

\DTMdeATdatetimesep The separator between the date and time blocks in the full format (either text or numeric).

749 \newcommand*{\DTMdeATdatetimesep}{,\space}

\DTMdeATtimezonesep The separator between the time and zone blocks in the full format (either text or numeric).

750 \newcommand*{\DTMdeATtimezonesep}{\space}

\DTMdeATdatesep The separator for the numeric date format.

751 \newcommand*{\DTMdeATdatesep}{-}

\DTMdeATtimesep The separator for the numeric time format.

752 \newcommand*{\DTMdeATtimesep}{:}

Provide keys that can be used in \DTMlangsetup to set these separators.

754 \DTMdefkey{de-AT}{daymonthsep}{\renewcommand*{\DTMdeATdaymonthsep}{#1}}

 $756 \texttt{\DTMdefkey} \{ de-AT \} \{ datetimesep \} \{ \texttt{\ToTMdeATdatetimesep} \} \} \\$

757 \DTMdefkey{de-AT}{timezonesep}{\renewcommand*{\DTMdeATtimezonesep}{#1}}

 $\label{lem:poisson} $$758 \de=AT}{datesep}{\renewcommand*{\DTMdeATdatesep}{\#1}} $$$

759 \DTMdefkey{de-AT}{timesep}{\renewcommand*{\DTMdeATtimesep}{#1}}

Define a boolean key that can switch between full and abbreviated formats for the month and day of week names in the text format.

760 \DTMdefboolkey{de-AT}{abbr}[true]{}

The default is full name

761 \DTMsetbool{de-AT}{abbr}{false}

Define a boolean key that determines if the time zone mappings should be used.

762 \DTMdefboolkey{de-AT}{mapzone}[true]{}

The default is to use mappings.

763 \DTMsetbool{de-AT}{mapzone}{true}

Define a boolean key that determines if the day of month should be displayed.

764 \DTMdefboolkey{de-AT}{showdayofmonth}[true]{}

The default is to show the day of month.

Define a boolean key that determines if the year should be displayed.

766 \DTMdefboolkey{de-AT}{showyear}[true]{}

The default is to show the year. 767 \DTMsetbool{de-AT}{showyear}{true} Define the de-AT style 768 \DTMnewstyle 769 {de-AT}% label 770 {% date style \renewcommand*\DTMdisplaydate[4]{% \ifDTMshowdow 772 773 \ifnum##4>-1 \DTMifbool{de-AT}{abbr}% 774 775 {\DTMgermanshortweekdayname{##4}}% 776 {\DTMgermanweekdayname{##4}}% 777 \DTMdeATdowdaysep \fi 778 779 \fi 780 \DTMifbool{de-AT}{showdayofmonth}% 781 782 {\DTMgermanordinal{##3}\DTMdeATdaymonthsep}% 783 784 \DTMifbool{de-AT}{abbr}% 785 786 {\DTMdeATshortmonthname{##2}}% {\DTMdeATmonthname{##2}}% 787 788 \DTMifbool{de-AT}{showyear}% 789 790 \DTMdeATmonthyearsep% 791 792 \number##1 % space intended 793 }% {}% 794 }% 795 \renewcommand*\DTMDisplaydate[4]{% 796 797 \ifDTMshowdow \ifnum##4>-1 798 \DTMifbool{de-AT}{abbr}% 799 {\DTMgermanshortweekdayname{##4}}% 800 {\DTMgermanweekdayname{##4}}% 801 \DTMdeATdowdaysep 802 \fi 803 804 \fi 805 806 \DTMifbool{de-AT}{showdayofmonth}% {\DTMgermanordinal{##3}\DTMdeATdaymonthsep}% 807 808 {}% 809 810 \DTMifbool{de-AT}{abbr}% {\DTMdeATshortmonthname{##2}}% 811 {\DTMdeATmonthname{##2}}% 812 813 \DTMifbool{de-AT}{showyear}% 814 815 {% **\DTMdeATmonthyearsep%** 816 817 \number##1 % space intended 818 }% 819 {}%

820 }

```
821 }%
822 {% time style (use default)
    \renewcommand*\DTMdisplaytime[3]{%
       \DTMtwodigits{##1}%
824
       \DTMdeATtimesep\DTMtwodigits{##2}%
825
826
       \ifDTMshowseconds\DTMdeATtimesep\DTMtwodigits{##3}\fi
827
    }%
828 }%
829 {% zone style
    \DTMresetzones
831
     \DTMgermanzonemaps
     \renewcommand*{\DTMdisplayzone}[2]{%
832
       \DTMifbool{de-AT}{mapzone}%
833
       {\DTMusezonemapordefault{##1}{##2}}%
834
835
         \ifnum##1<0\else+\fi\DTMtwodigits{##1}%
836
         \ifDTMshowzoneminutes\DTMdeATtimesep\DTMtwodigits{##2}\fi
837
838
       }%
    }%
839
840 }%
841 {% full style
    \renewcommand*{\DTMdisplay}[9]{%
843
       \ifDTMshowdate
         \DTMdisplaydate{##1}{##2}{##3}{##4}%
844
         \DTMdeATdatetimesep
845
846
       \DTMdisplaytime{##5}{##6}{##7}%
847
848
       \ifDTMshowzone
         \DTMdeATtimezonesep
849
         \DTMdisplayzone{##8}{##9}%
850
851
       \fi
     }%
852
     \renewcommand*{\DTMDisplay}[9]{%
853
854
       \ifDTMshowdate
855
         \DTMDisplaydate{##1}{##2}{##3}{##4}%
856
         \DTMdeATdatetimesep
       \fi
857
       \DTMdisplaytime{##5}{##6}{##7}%
858
       \ifDTMshowzone
859
         \DTMdeATtimezonesep
860
         \DTMdisplayzone{##8}{##9}%
861
862
       \fi
    }%
863
864 }%
Define numeric style.
865 \DTMnewstyle
866 {de-AT-numeric}% label
867 {% date style
868
     \renewcommand*\DTMdisplaydate[4]{%
869
       \DTMifbool{de-AT}{showyear}%
870
       {%
         \number##1 % space intended
871
         \DTMdeATdatesep%
872
       }%
873
874
       {}%
875
       %
```

```
\DTMtwodigits{##2}%
876
877
       \DTMifbool{de-AT}{showdayofmonth}%
878
879
       {%
         \DTMdeATdatesep%
880
         \DTMtwodigits{##3}%
881
       }%
882
883
      {}%
    }%
885
    \renewcommand*{\DTMDisplaydate}[4]{\DTMdisplaydate{##1}{##2}{##3}{##4}}%
886 }%
887 {% time style
    \renewcommand*\DTMdisplaytime[3]{%
888
       \DTMtwodigits{##1}%
889
       \DTMdeATtimesep\DTMtwodigits{##2}%
890
       \ifDTMshowseconds\DTMdeATtimesep\DTMtwodigits{##3}\fi
891
892 }%
893 }%
894 {% zone style
    \DTMresetzones
    \DTMgermanzonemaps
     \renewcommand*{\DTMdisplayzone}[2]{%
898
       \DTMifbool{de-AT}{mapzone}%
       {\DTMusezonemapordefault{##1}{##2}}%
899
900
       {%
         \ifnum##1<0\else+\fi\DTMtwodigits{##1}%
901
         \ifDTMshowzoneminutes\DTMgermantimesep\DTMtwodigits{##2}\fi
902
903
       }%
904
    }%
905 }%
906 {% full style
    \renewcommand*{\DTMdisplay}[9]{%
907
       \ifDTMshowdate
908
         DTMdisplaydate{##1}{##2}{##3}{##4}%
909
910
         \DTMdeATdatetimesep
911
       \DTMdisplaytime{##5}{##6}{##7}%
912
       \ifDTMshowzone
913
         \DTMdeATtimezonesep
914
         \DTMdisplayzone{##8}{##9}%
915
916
       \fi
917
    }%
     \renewcommand*{\DTMDisplay}{\DTMdisplay}%
918
919 }
Switch style according to the useregional setting.
920 \DTMifcaseregional
921 {}% do nothing
922 {\DTMsetstyle{de-AT}}
923 {\DTMsetstyle{de-AT-numeric}}
Redefine \dategerman (or \date\langle dialect \rangle) to prevent babel from resetting \today. (For this to
work, babel must already have been loaded if it's required.)
924 \ifcsundef{date\CurrentTrackedDialect}
925 { %
    \ifundef\dategerman
926
927
    {% do nothing
```

```
}%
928
929
    {%
       \def\dategerman{%
930
         \DTMifcaseregional
931
         {}% do nothing
932
         {\DTMsetstyle{german}}%
933
         {\DTMsetstyle{german-numeric}}%
934
935
       }%
936
    }%
937 }%
938 {%
     \csdef{date\CurrentTrackedDialect}{%
939
       \DTMifcaseregional
940
       {}% do nothing
941
       {\DTMsetstyle{de-AT}}%
942
       {\DTMsetstyle{de-AT-numeric}}
944
945 }%
```

9 Swiss German localization (de-CH, datetime2-de-CH.ldf)

```
Identify Module
```

```
946 \ProvidesDateTimeModule{de-CH}[2017/10/03 v2.0]
```

Require the basic German module

947 \RequireDateTimeModule{german}

Allow the user a way of configuring the de-CH and de-CH-numeric styles. This doesn't use the package wide separators such as \dtm@datetimesep in case other date formats are also required.

```
\DTMdeCHdowdaysep The separator between weekday and day
948 \newcommand*{\DTMdeCHdowdaysep}{,\space}
```

340 (newcommand* (billacendowday3cp) (, \3pacc)

\DTMdeCHdaymonthsep The separator between the day and month for the text format.

949 \newcommand*{\DTMdeCHdaymonthsep}{.\DTMtexorpdfstring{\protect~}{\space}}

\DTMdeCHmonthyearsep The separator between the month and year for the text format.

950 \newcommand*{\DTMdeCHmonthyearsep}{\space}

\DTMdeCHdatetimesep The separator between the date and time blocks in the full format (either text or numeric).

951 \newcommand*{\DTMdeCHdatetimesep}{,\space}

\DTMdeCHtimezonesep The separator between the time and zone blocks in the full format (either text or numeric).

952 \newcommand*{\DTMdeCHtimezonesep}{\space}

\DTMdeCHdatesep The separator for the numeric date format.

953 \newcommand*{\DTMdeCHdatesep}{.}

\DTMdeCHtimesep The separator for the numeric time format.

954 \newcommand*{\DTMdeCHtimesep}{.}

Provide keys that can be used in \DTMlangsetup to set these separators.

```
955 \DTMdefkey{de-CH}{dowdaysep}{\renewcommand*{\DTMdeCHdowdaysep}{#1}}
956 \DTMdefkey{de-CH}{daymonthsep}{\renewcommand*{\DTMdeCHdaymonthsep}{#1}}
957 \DTMdefkey{de-CH}{monthyearsep}{\renewcommand*{\DTMdeCHmonthyearsep}{#1}}
```

```
958 \DTMdefkey{de-CH}{datetimesep}{\renewcommand*{\DTMdeCHdatetimesep}{#1}}
959 \DTMdefkey{de-CH}{timezonesep}{\renewcommand*{\DTMdeCHtimezonesep}{#1}}
960 \DTMdefkey{de-CH}{datesep}{\renewcommand*{\DTMdeCHdatesep}{#1}}
961 \DTMdefkey{de-CH}{timesep}{\renewcommand*{\DTMdeCHtimesep}{#1}}
Define a boolean key that can switch between full and abbreviated formats for the month and
day of week names in the text format.
962 \DTMdefboolkey{de-CH}{abbr}[true]{}
The default is full name
963 \DTMsetbool{de-CH}{abbr}{false}
Define a boolean key that determines if the time zone mappings should be used.
964 \DTMdefboolkey{de-CH}{mapzone}[true]{}
The default is to use mappings.
965 \DTMsetbool{de-CH}{mapzone}{true}
Define a boolean key that determines if the day of month should be displayed.
966 \DTMdefboolkey{de-CH}{showdayofmonth}[true]{}
The default is to show the day of month.
967 \DTMsetbool{de-CH}{showdayofmonth}{true}
Define a boolean key that determines if the year should be displayed.
968 \DTMdefboolkey{de-CH}{showyear}[true]{}
The default is to show the year.
969 \DTMsetbool{de-CH}{showyear}{true}
Define the de-CH style
970 \DTMnewstyle
971 {de-CH}% label
972 {% date style
    \renewcommand*\DTMdisplaydate[4]{%
      \ifDTMshowdow
974
975
         \ifnum##4>-1
           \DTMifbool{de-CH}{abbr}%
976
977
           {\DTMgermanshortweekdayname{##4}}%
           {\DTMgermanweekdayname{##4}}%
978
           \DTMdeCHdowdaysep
979
         \fi
980
      \fi
981
982
983
      \DTMifbool{de-CH}{showdayofmonth}%
      {\DTMgermanordinal{##3}\DTMdeCHdaymonthsep}%
984
985
      {}%
986
      \DTMifbool{de-CH}{abbr}%
987
988
      {\DTMgermanshortmonthname{##2}}%
      {\DTMgermanmonthname{##2}}%
989
990
      \DTMifbool{de-CH}{showyear}%
991
992
      {%
         \DTMdeCHmonthyearsep%
993
994
         \number##1 % space intended
      }%
995
996
      {}%
    }%
997
```

\renewcommand*\DTMDisplaydate[4]{%

998

```
\ifDTMshowdow
999
         \ifnum##4>-1
1000
            \DTMifbool{de-CH}{abbr}%
1001
            {\DTMgermanshortweekdayname{##4}}%
1002
            {\DTMgermanweekdayname{##4}}%
1003
            \DTMdeCHdowdaysep
1004
         \fi
1005
       \fi
1006
1007
1008
       \DTMifbool{de-CH}{showdayofmonth}%
       {\DTMgermanordinal{##3}\DTMdeCHdaymonthsep}%
1009
1010
       {}%
1011
       \DTMifbool{de-CH}{abbr}%
1012
       {\DTMgermanshortmonthname{##2}}%
1013
       {\DTMgermanmonthname{##2}}%
1014
1015
1016
       \DTMifbool{de-CH}{showyear}%
1017
       {%
         1018
1019
         \number##1 % space intended
1020
       }%
1021
       {}%
    }
1022
1023 }%
1024{% time style (use default)
     \renewcommand*\DTMdisplaytime[3]{%
1026
       \DTMtwodigits{##1}%
1027
       \DTMdeCHtimesep\DTMtwodigits{##2}%
       \ifDTMshowseconds\DTMdeCHtimesep\DTMtwodigits{##3}\fi\space%
1028
1029
       Uhr%
     }%
1030
1031 }%
1032 {% zone style
     \DTMresetzones
1034
     \DTMgermanzonemaps
     \renewcommand*{\DTMdisplayzone}[2]{%
1035
       \DTMifbool{de-CH}{mapzone}%
1036
       {\DTMusezonemapordefault{##1}{##2}}%
1037
1038
       {%
         \ifnum##1<0\else+fi\DTMtwodigits{##1}%
1039
1040
            \ifDTMshowzoneminutes\DTMdeCHtimesep\DTMtwodigits{##2}\fi
       }%
1041
1042
     }%
1043 }%
1044 {% full style
     \renewcommand*{\DTMdisplay}[9]{%
1046
       \ifDTMshowdate
1047
         \DTMdisplaydate{##1}{##2}{##3}{##4}%
1048
         \DTMdeCHdatetimesep
1049
       \DTMdisplaytime{##5}{##6}{##7}%
1050
       \ifDTMshowzone
1051
1052
         \DTMdeCHtimezonesep
1053
         \DTMdisplayzone{##8}{##9}%
1054
```

```
}%
1055
               \renewcommand*{\DTMDisplay}[9]{%
1056
                    \ifDTMshowdate
1057
                           \DTMDisplaydate{##1}{##2}{##3}{##4}%
1058
                           \DTMdeCHdatetimesep
1059
                    \fi
1060
                    \label{local_decomposition} $$ \operatorname{DTMdisplaytime}{\#5}{\#\#6}{\#\#7}\%$ 
1061
                    \ifDTMshowzone
                          \DTMdeCHtimezonesep
1063
1064
                          \DTMdisplayzone{##8}{##9}%
                    \fi
1065
              }%
1066
1067 }%
  Define numeric style.
1068 \DTMnewstyle
1069 {de-CH-numeric}% label
1070 {% date style
              \renewcommand*\DTMdisplaydate[4]{%
                     \ifDTMshowdow
1072
1073
                           \ifnum##4>-1
1074
                                \DTMifbool{de-CH}{abbr}%
                                {\DTMgermanshortweekdayname{##4}}%
1075
                                {\DTMgermanweekdayname{##4}}%
1077 \DTMdeCHdowdaysep
                          \fi
1078
                    \fi
1079
1080
                    \DTMifbool{de-CH}{showdayofmonth}%
1081
1082
                          \DTMtwodigits{##3}%
1083
                          \DTMdeCHdatesep
1084
                    }%
1085
                    {}%
1086
1087
                    \DTMtwodigits{##2}%
                    \DTMdeCHdatesep%
1088
                    \DTMifbool{de-CH}{showyear}%
1089
1090
                    {%
                           \number##1 % space intended
1091
                    }%
1092
                    {}%
1093
1094
               1095
1096 }%
1097 {% time style
               \renewcommand*\DTMdisplaytime[3]{%
1098
1099
                     \DTMtwodigits{##1}%
1100
                    \DTMdeCHtimesep\DTMtwodigits{##2}%
                    \verb|\ifDTMshowseconds|| DTMdeCHtimesep|| DTMtwodigits{##3} \\ fi \\ | space%|| DTMtwodigits{##3} \\ | \\ | space%|| DTMtwodigits{#max} \\ 
 1101
                    Uhr%
1102
 1103
              }%
1104 }%
1105 {% zone style
1106
               \DTMresetzones
               \DTMgermanzonemaps
1107
               \renewcommand*{\DTMdisplayzone}[2]{%
1108
                    \DTMifbool{de-CH}{mapzone}%
1109
```

```
{\DTMusezonemapordefault{##1}{##2}}%
1110
1111
          \ifnum##1<0\else+\fi\DTMtwodigits{##1}%
1112
          \ifDTMshowzoneminutes\DTMgermantimesep\DTMtwodigits{##2}\fi
1113
1114
       }%
     }%
1115
1116 }%
1117 {% full style
     \renewcommand*{\DTMdisplay}[9]{%
1119
       \ifDTMshowdate
          \DTMdisplaydate{##1}{##2}{##3}{##4}%
1120
          \DTMdeCHdatetimesep
1121
1122
       \DTMdisplaytime{##5}{##6}{##7}%
1123
1124
       \ifDTMshowzone
          \DTMdeCHtimezonesep
1125
          \DTMdisplayzone{##8}{##9}%
1126
1127
       \fi
     }%
1128
     \renewcommand*{\DTMDisplay}{\DTMdisplay}%
1129
Switch style according to the useregional setting.
1131 \DTMifcaseregional
1132 {}% do nothing
1133 {\DTMsetstyle{de-CH}}
1134 {\DTMsetstyle{de-CH-numeric}}
Redefine \forall dategerman (or \forall date\langle dialect\rangle) to prevent babel from resetting \forall today. (For this to
work, babel must already have been loaded if it's required.)
1135 \ifcsundef{date\CurrentTrackedDialect}
1136 { %
1137
     \ifundef\dategerman
1138
     {% do nothing
     }%
1139
1140
     {%
       \def\dategerman{%
1141
          \DTMifcaseregional
1142
1143
          {}% do nothing
          {\DTMsetstyle{german}}%
          {\DTMsetstyle{german-numeric}}%
1145
       }%
1146
     }%
1147
1148 }%
1149 {%
     \csdef{date\CurrentTrackedDialect}{%
1150
1151
       \DTMifcaseregional
       {}% do nothing
1152
       {\DTMsetstyle{de-CH}}%
1153
       {\DTMsetstyle{de-CH-numeric}}
1154
1155
    }%
1156 }%
```

Change History

| 1.0 | 2.0 |
|--|--|
| General: Initial release | \DTMdeATmonthname: Austrian month |
| 1.1 | names implemented |
| General: fixed bug in \DTMDisplaydate 14 | \DTMdeATshortmonthname: Austrian short |
| 1.2 | month names implemented 9, 12 |
| \DTMgermanshortmonthname: Short month | \DTMgermanshortmonthname: Short month |
| names implemented | names fixed |
| weekday names implemented 9, 12 | weekday names fixed 9, 12 |
| \DTMgermanzonemaps: German time zone | General: Austrian German localization |
| names (ME[S]Z) | added |
| General: Day of week implemented 14, 16 | Bugfix: month-year-separator 16 |
| Short month names implemented 14 | German localization added 18 |
| Short weekday names implemented 14 | Swiss German localization added 27 |
| | |
| | |
| Index | |
| muex | |
| | |
| D | \DTMdeDEmonthyearsep |
| \DTMdeATdatesep 23 | \DTMdeDEtimesep 18 |
| \DTMdeATdatetimesep 23 | \DTMdeDEtimezonesep |
| \DTMdeATdaymonthsep 23 | \DTMgermandatesep |
| \DTMdeATdowdaysep 23 | \DTMgermandatetimesep |
| \DTMdeATmonthname 7, 11 | \DTMgermandaymonthsep |
| \DTMdeATmonthyearsep 23 | \DTMgermandowdaysep |
| \DTMdeATshortmonthname 9, 12 | \DTMgermanmonthname |
| \DTMdeATtimesep 23 | \DTMgermanmonthyearsep |
| \DTMdeATtimezonesep 23 | \DTMgermanshortmonthname 8, 11 |
| \DTMdeCHdatesep 27 | \DTMgermanshortweekdayname |
| \DTMdeCHdatetimesep 27 | \DTMgermantimesep |
| \DTMdeCHdaymonthsep 27 | \DTMgermantimezonesep |
| \DTMdeCHdowdaysep | \DTMgermanweekdayname 9, 12 |
| \DTMdeCHmonthyearsep | \DTMgermanzonemaps |
| \DTMdeCHtimesep 27 | · |
| \DTMdeCHtimezonesep 27 | S |
| \DTMdeDEdatesep 18 | showdow |
| \DTMdeDEdatetimesep | |
| \DTMdeDEdaymonthsep | U |
| \DTMdeDEdowdaysep | useregional |