

German Module for datetime2 Package

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

Nicola L. C. Talbot (inactive) Sebastian Friedl*

2017-03-09 (v1.1)

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}` depending on the value of the `useregional` setting.

The current version of the date style is copied from `babel-german`'s `\today`.

Actually, some of these settings are not correct. These settings will be changed with the next version of this module.

Currently there is only a regionless style. This style currently doesn't check the `showdow` setting. New maintainers may want to add regional variants such as `de-DE/de-DE-numeric` and `de-AT/de-AT-numeric`. This style currently doesn't check the `showdow` setting. New styles are in progress

1 The Code

1.1 UTF-8

This file contains the settings that use UTF-8 characters. This file is loaded if XeLaTeX or LuaLaTeX 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}[2017/03/09 v1.1]
```

```
\DTMgermanordinal
```

```
2 \newcommand*{\DTMgermanordinal}[1]{%
3   \number#1
4 }
```

```
*sfr682k@t-online.de
```

`\DTMgermanmonthname` German month names.

```
5 \newcommand*{\DTMgermanmonthname}[1]{%
6   \ifcase#1
7   \or
8   Januar%
9   \or
10  Februar%
11  \or
12  März%
13  \or
14  April%
15  \or
16  Mai%
17  \or
18  Juni%
19  \or
20  Juli%
21  \or
22  August%
23  \or
24  September%
25  \or
26  Oktober%
27  \or
28  November%
29  \or
30  Dezember%
31  \fi
32 }
```

If abbreviated dates are supported, short month names should be likewise provided.

`\DTMgermanweekdayname` These are provided here but not currently used in the date format.

```
33 \newcommand*{\DTMgermanweekdayname}[1]{%
34   \ifcase#1
35   Montag%
36   \or
37   Dienstag%
38   \or
39   Mittwoch%
40   \or
41   Donnerstag%
42   \or
43   Freitag%
44   \or
45   Samstag%
46   \or
47   Sonntag%
48   \fi
```

49 }

1.2 ASCII

This file contains the settings that use L^AT_EX commands for non-ASCII characters. This should be input if neither XeLaTeX nor LuaLaTeX 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

```
50 \ProvidesDateTimeModule{german-ascii}[2017/03/09 v1.1]
```

If abbreviated dates are supported, short month names should be likewise provided.

\DTMgermanordinal

```
51 \newcommand*{\DTMgermanordinal}[1]{%
52   \number#1
53 }
```

\DTMgermanmonthname

German month names.

```
54 \newcommand*{\DTMgermanmonthname}[1]{%
55   \ifcase#1
56   \or
57   Januar%
58   \or
59   Februar%
60   \or
61   M\protect\"arz%
62   \or
63   April%
64   \or
65   Mai%
66   \or
67   Juni%
68   \or
69   Juli%
70   \or
71   August%
72   \or
73   September%
74   \or
75   Oktober%
76   \or
77   November%
78   \or
79   Dezember%
80   \fi
81 }
```

`\DTMgermanweekdayname` These are provided here but not currently used in the date format.

```

82 \newcommand*{\DTMgermanweekdayname}[1]{%
83   \ifcase#1
84     Montag%
85   \or
86     Dienstag%
87   \or
88     Mittwoch%
89   \or
90     Donnerstag%
91   \or
92     Freitag%
93   \or
94     Samstag%
95   \or
96     Sonntag%
97   \fi
98 }
```

1.3 Main German Module (datetime2-german.1df)

Identify Module

```
99 \ProvidesDateTimeModule{german}[2017/03/09 v1.1]
```

Need to find out if XeTeX or LuaTeX are being used.

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

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

```

101 \ifxetex
102   \RequireDateTimeModule{german-utf8}
103 \else
104   \ifluatex
105     \RequireDateTimeModule{german-utf8}
106   \else
107     \RequireDateTimeModule{german-ascii}
108   \fi
109 \fi
```

Define the `german` style. The time style is the same as the default style provided by `datetime2`. This may need correcting.

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.

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

```
110 \newcommand*{\DTMgermandaymonthsep}{.\DTMtexpdfstring{\protect~}{\space}}
```

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

```
111 \newcommand*{\DTMgermanmonthyearsep}{\space}
```

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

```
112 \newcommand*{\DTMgermandatetimesep}{\space}
```

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

```
113 \newcommand*{\DTMgermantimezonesep}{\space}
```

`\DTMgermandatesep` The separator for the numeric date format.

```
114 \newcommand*{\DTMgermandatesep}{/}
```

`\DTMgermantimesep` The separator for the numeric time format.

```
115 \newcommand*{\DTMgermantimesep}{:}
```

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

```
116 \DTMdefkey{german}{daymonthsep}{\renewcommand*{\DTMgermandaymonthsep}{#1}}
117 \DTMdefkey{german}{monthyearsep}{\renewcommand*{\DTMgermanmonthyearsep}{#1}}
118 \DTMdefkey{german}{datetimesep}{\renewcommand*{\DTMgermandatetimesep}{#1}}
119 \DTMdefkey{german}{timezonesep}{\renewcommand*{\DTMgermantimezonesep}{#1}}
120 \DTMdefkey{german}{datesep}{\renewcommand*{\DTMgermandatesep}{#1}}
121 \DTMdefkey{german}{timesep}{\renewcommand*{\DTMgermantimesep}{#1}}
```

TODO: provide a boolean key to switch between full and abbreviated formats if appropriate. (I don't know how the date should be abbreviated.)

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

```
122 \DTMdefboolkey{german}{mapzone}[true]{}
The default is to use mappings.
123 \DTMsetbool{german}{mapzone}{true}
```

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

```
124 \DTMdefboolkey{german}{showdayofmonth}[true]{}
The default is to show the day of month.
125 \DTMsetbool{german}{showdayofmonth}{true}
```

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

```
126 \DTMdefboolkey{german}{showyear}[true]{}
The default is to show the year.
127 \DTMsetbool{german}{showyear}{true}
```

Define the `german` style. (TODO: implement day of week?)

```
128 \DTMnewstyle
129 {german}% label
130 {% date style
131   \renewcommand*{\DTMdisplaydate[4]}{%
132     \DTMifbool{german}{showdayofmonth}%
133     {\DTMgermanordinal{##3}\DTMgermandaymonthsep}%
134     {}%
```

```

135     \DTMgermanmonthname{##2}%
136     \DTMifbool{german}{showyear}%
137     {%
138         \DTMgermanmonthyearsep
139         \number##1 % space intended
140     }%
141     {}%
142 }%
143 \renewcommand*\DTMDisplaydate[4]{%
144     \DTMifbool{german}{showdayofmonth}%
145     {%
146         \DTMgermanordinal{##3}\DTMgermandaymonthsep
147         \DTMgermanmonthname{##2}%
148     }%
149     {\DTMgermanmonthname{##2}}%
150     \DTMifbool{german}{showyear}%
151     {%
152         \DTMgermanmonthyearsep
153         \number##1 % space intended
154     }%
155     {}%
156 }%
157 }%
158 {% time style (use default)
159     \DTMsettimestyle{default}%
160 }%
161 {% zone style
162     \DTMresetzones
163     \DTMgermanzonemaps
164     \renewcommand*\DTMdisplayzone}[2]{%
165         \DTMifbool{german}{mapzone}%
166         {\DTMusedzonemapordefault{##1}{##2}}%
167         {%
168             \ifnum##1<0\else+\fi\DTMtwdigits{##1}%
169             \ifDTMshowzoneminutes\DTMgermantimesep\DTMtwdigits{##2}\fi
170         }%
171     }%
172 }%
173 {% full style
174     \renewcommand*\DTMdisplay}[9]{%
175         \ifDTMshowdate
176             \DTMdisplaydate{##1}{##2}{##3}{##4}%
177             \DTMgermandatetimesep
178             \fi
179             \DTMdisplaytime{##5}{##6}{##7}%
180             \ifDTMshowzone
181                 \DTMgermantimezonesep
182                 \DTMdisplayzone{##8}{##9}%
183             \fi
184         }%

```

```

185 \renewcommand*\DTMDisplay}[9]{%
186 \ifDTMshowdate
187 \DTMDisplaydate{##1}{##2}{##3}{##4}%
188 \DTMgermandatetimesep
189 \fi
190 \DTMdisplaytime{##5}{##6}{##7}%
191 \ifDTMshowzone
192 \DTMgermantimezonesep
193 \DTMdisplayzone{##8}{##9}%
194 \fi
195 }%
196 }%

Define numeric style.
197 \DTMnewstyle
198 {german-numeric}% label
199 {% date style
200 \renewcommand*\DTMdisplaydate[4]{%
201 \DTMifbool{german}{showdayofmonth}%
202 {%
203 \number##3 % space intended
204 \DTMgermandatesep
205 }%
206 }%
207 \number##2 % space intended
208 \DTMifbool{german}{showyear}%
209 {%
210 \DTMgermandatesep
211 \number##1 % space intended
212 }%
213 }%
214 }%
215 \renewcommand*\DTMDisplaydate}[4]{\DTMdisplaydate{##1}{##2}{##3}{##4}}%
216 }%
217 {% time style
218 \renewcommand*\DTMdisplaytime[3]{%
219 \number##1
220 \DTMgermantimesep\DTMtwdigits{##2}%
221 \ifDTMshowseconds\DTMgermantimesep\DTMtwdigits{##3}\fi
222 }%
223 }%
224 {% zone style
225 \DTMresetzones
226 \DTMgermanzonemaps
227 \renewcommand*\DTMdisplayzone}[2]{%
228 \DTMifbool{german}{mapzone}%
229 {\DTMusedzonemapordefault{##1}{##2}}%
230 {%
231 \ifnum##1<0\else\fi\DTMtwdigits{##1}%
232 \ifDTMshowzoneminutes\DTMgermantimesep\DTMtwdigits{##2}\fi

```

```

233     }%
234 }%
235 }%
236 {% full style
237   \renewcommand*{\DTMdisplay}[9]{%
238     \ifDTMshowdate
239       \DTMdisplaydate{##1}{##2}{##3}{##4}%
240       \DTMgermandatetimesep
241     \fi
242     \DTMdisplaytime{##5}{##6}{##7}%
243     \ifDTMshowzone
244       \DTMgermantimezonesep
245       \DTMdisplayzone{##8}{##9}%
246     \fi
247   }%
248   \renewcommand*{\DTMDisplay}{\DTMdisplay}%
249 }

```

`\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.

```

250 \newcommand*{\DTMgermanzonemaps}{%
251   \DTMdefzonemap{01}{00}{CET}%
252   \DTMdefzonemap{02}{00}{CEST}%
253 }

```

Switch style according to the `useregional` setting.

```

254 \DTMifcaseregional
255 {}% do nothing
256 {\DTMsetstyle{german}}
257 {\DTMsetstyle{german-numeric}}

```

Redefine `\dategerman` (or `\date{dialect}`) to prevent `babel` from resetting `\today`. (For this to work, `babel` must already have been loaded if it's required.)

```

258 \ifcsundef{date\CurrentTrackedDialect}
259 {%
260   \ifundef\dategerman
261     {}% do nothing
262   }%
263   {%
264     \def\dategerman{%
265       \DTMifcaseregional
266       {}% do nothing
267       {\DTMsetstyle{german}}%
268       {\DTMsetstyle{german-numeric}}%
269     }%
270   }%
271 }%
272 {%
273   \csdef{date\CurrentTrackedDialect}{%
274     \DTMifcaseregional

```



```
275     {}% do nothing
276     {\DTMsetstyle{german}}}%
277     {\DTMsetstyle{german-numeric}}
278   }%
279 }%
```

Change History

1.0		1.1	
		General: fixed bug in	
General: Initial release	1, 3, 4	\DTMDisplaydate	5

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