German Module for datetime2 Package

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

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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 }
```

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`\DTMgermanmonthname` German month names.

```
\newcommand*{\DTMgermanmonthname}[1]{%
  \ifcase#1
  \or
  Januar%
  \or
  Februar%
  \or
  März%
  \or
  April%
  \or
  Mai%
  \or
  Juni%
  \or
  Juli%
  \or
  August%
  \or
  September%
  \or
  Oktober%
  \or
  November%
  \or
  Dezember%
  \fi
}
```

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.

```
\newcommand*{\DTMgermanweekdayname}[1]{%
  \ifcase#1
  Montag%
  \or
  Dienstag%
  \or
  Mittwoch%
  \or
  Donnerstag%
  \or
  Freitag%
  \or
  Samstag%
  \or
  Sonntag%
  \fi
```

```
}
```

1.2 ASCII

This file contains the settings that use LaTeX 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

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

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

`\DTMgermanordinal`

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

`\DTMgermanmonthname` German month names.

```
\newcommand*{\DTMgermanmonthname}[1]{%
  \ifcase#1
  \or
  Januar%
  \or
  Februar%
  \or
  M\protect\"arz%
  \or
  April%
  \or
  Mai%
  \or
  Juni%
  \or
  Juli%
  \or
  August%
  \or
  September%
  \or
  Oktober%
  \or
  November%
  \or
  Dezember%
  \fi
}
```

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

```
\newcommand*{\DTMgermanweekdayname}[1]{%
  \ifcase#1
  Montag%
  \or
  Dienstag%
  \or
  Mittwoch%
  \or
  Donnerstag%
  \or
  Freitag%
  \or
  Samstag%
  \or
  Sonntag%
  \fi
}
```

1.3 Main German Module (datetime2-german.ldf)

Identify Module

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

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

```
\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`.

```
\ifxetex
 \RequireDateTimeModule{german-utf8}
\else
 \ifluatex
   \RequireDateTimeModule{german-utf8}
 \else
   \RequireDateTimeModule{german-ascii}
 \fi
\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.

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

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

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

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

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

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

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

\DTMgermandatesep The separator for the numeric date format.

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

\DTMgermantimesep The separator for the numeric time format.

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

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

```
\DTMdefkey{german}{daymonthsep}{\renewcommand*{\DTMgermandaymonthsep}{#1}}
\DTMdefkey{german}{monthyearsep}{\renewcommand*{\DTMgermanmonthyearsep}{#1}}
\DTMdefkey{german}{datetimesep}{\renewcommand*{\DTMgermandatetimesep}{#1}}
\DTMdefkey{german}{timezonesep}{\renewcommand*{\DTMgermantimezonesep}{#1}}
\DTMdefkey{german}{datesep}{\renewcommand*{\DTMgermandatesep}{#1}}
\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.

```
\DTMdefboolkey{german}{mapzone}[true]{}
```

The default is to use mappings.

```
\DTMsetbool{german}{mapzone}{true}
```

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

```
\DTMdefboolkey{german}{showdayofmonth}[true]{}
```

The default is to show the day of month.

```
\DTMsetbool{german}{showdayofmonth}{true}
```

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

```
\DTMdefboolkey{german}{showyear}[true]{}
```

The default is to show the year.

```
\DTMsetbool{german}{showyear}{true}
```

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

```
\DTMnewstyle
 {german}% label
 {% date style
   \renewcommand*\DTMdisplaydate[4]{%
     \DTMifbool{german}{showdayofmonth}%
     {\DTMgermanordinal{##3}\DTMgermandaymonthsep}%
     {}%
```

```
    \DTMgermanmonthname{##2}%
    \DTMifbool{german}{showyear}%
    {%
      \DTMgermanmonthyearsep
      \number##1 % space intended
    }%
    {}%
  }%
  \renewcommand*\DTMDisplaydate[4]{%
    \DTMifbool{german}{showdayofmonth}%
    {%
       \DTMgermanordinal{##3}\DTMgermandaymonthsep
       \DTMgermanmonthname{##2}%
    }%
    {\DTMgermanmonthname{##2}}%
    \DTMifbool{german}{showyear}%
    {%
      \DTMgermanmonthyearsep
      \number##1 % space intended
    }%
    {}%
  }%
}%
{% time style (use default)
  \DTMsettimestyle{default}%
}%
{% zone style
  \DTMresetzones
  \DTMgermanzonemaps
  \renewcommand*{\DTMdisplayzone}[2]{%
    \DTMifbool{german}{mapzone}%
    {\DTMusezonemapordefault{##1}{##2}}%
    {%
      \ifnum##1<0\else+\fi\DTMtwodigits{##1}%
      \ifDTMshowzoneminutes\DTMgermantimesep\DTMtwodigits{##2}\fi
    }%
  }%
}%
{% full style
  \renewcommand*{\DTMdisplay}[9]{%
   \ifDTMshowdate
    \DTMdisplaydate{##1}{##2}{##3}{##4}%
    \DTMgermandatetimesep
   \fi
   \DTMdisplaytime{##5}{##6}{##7}%
   \ifDTMshowzone
    \DTMgermantimezonesep
    \DTMdisplayzone{##8}{##9}%
   \fi
  }%
```

```
  \renewcommand*{\DTMDisplay}[9]{%
   \ifDTMshowdate
    \DTMDisplaydate{##1}{##2}{##3}{##4}%
    \DTMgermandatetimesep
   \fi
   \DTMdisplaytime{##5}{##6}{##7}%
   \ifDTMshowzone
    \DTMgermantimezonesep
    \DTMdisplayzone{##8}{##9}%
   \fi
  }%
}%
```

Define numeric style.

```
\DTMnewstyle
 {german-numeric}% label
 {% date style
    \renewcommand*\DTMdisplaydate[4]{%
      \DTMifbool{german}{showdayofmonth}%
      {%
        \number##3 % space intended
        \DTMgermandatesep
      }%
      {}%
      \number##2 % space intended
      \DTMifbool{german}{showyear}%
      {%
        \DTMgermandatesep
        \number##1 % space intended
      }%
      {}%
    }%
    \renewcommand*{\DTMDisplaydate}[4]{\DTMdisplaydate{##1}{##2}{##3}{##4}}%
 }%
 {% time style
    \renewcommand*\DTMdisplaytime[3]{%
      \number##1
      \DTMgermantimesep\DTMtwodigits{##2}%
      \ifDTMshowseconds\DTMgermantimesep\DTMtwodigits{##3}\fi
    }%
 }%
 {% zone style
   \DTMresetzones
   \DTMgermanzonemaps
   \renewcommand*{\DTMdisplayzone}[2]{%
     \DTMifbool{german}{mapzone}%
     {\DTMusezonemapordefault{##1}{##2}}%
     {%
       \ifnum##1<0\else+\fi\DTMtwodigits{##1}%
       \ifDTMshowzoneminutes\DTMgermantimesep\DTMtwodigits{##2}\fi
```

```
    }%
  }%
}%
{% full style
  \renewcommand*{\DTMdisplay}[9]{%
   \ifDTMshowdate
    \DTMdisplaydate{##1}{##2}{##3}{##4}%
    \DTMgermandatetimesep
   \fi
   \DTMdisplaytime{##5}{##6}{##7}%
   \ifDTMshowzone
    \DTMgermantimezonesep
    \DTMdisplayzone{##8}{##9}%
   \fi
  }%
  \renewcommand*{\DTMDisplay}{\DTMdisplay}%
}
```

`\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.

```
\newcommand*{\DTMgermanzonemaps}{%
  \DTMdefzonemap{01}{00}{CET}%
  \DTMdefzonemap{02}{00}{CEST}%
}
```

Switch style according to the `useregional` setting.

```
\DTMifcaseregional
{}% do nothing
{\DTMsetstyle{german}}
{\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.)

```
\ifcsundef{date\CurrentTrackedDialect}
{%
  \ifundef\dategerman
  {% do nothing
  }%
  {%
    \def\dategerman{%
      \DTMifcaseregional
      {}% do nothing
      {\DTMsetstyle{german}}%
      {\DTMsetstyle{german-numeric}}%
    }%
  }%
}%
{%
  \csdef{date\CurrentTrackedDialect}{%
    \DTMifcaseregional
```

```
    {}% do nothing
    {\DTMsetstyle{german}}%
    {\DTMsetstyle{german-numeric}}
  }%
}%
```

Change History

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