

Welsh Module for datetime2 Package

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This module is currently unmaintained and may be subject to change. If you want to volunteer to take over maintenance, contact me at <http://www.dickimaw-books.com/contact.html>

Abstract

This is the Welsh 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.

I've copied the date style from `babel-welsh`'s `\today`.

I don't know if these settings are correct as I can't speak Welsh. In particular, I don't know if the `welsh` time style is correct. Currently this just uses the `default` time style. Please be aware that this may change. Whoever takes over maintainance of this module may can change it as appropriate.

The new maintainer should add the line:

`The Current Maintainer of this work is Name.`

to the preamble part in `datetime2-welsh.ins` where `Name` is the name of the maintainer(s) and replace the 'inactive' status to 'maintained'.

Currently there is only a regionless style. New maintainers may want to add regional variants `cy-GB/cy-GB-numeric` and `cy-AR/cy-AR-numeric`. This style currently doesn't check the `showdow` setting.

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{welsh-utf8}[2019/10/28 v1.1]`

```

\DTMwelshordinal
 2 \newcommand*{\DTMwelshordinal}[1]{%
 3   \number#1 % space intended
 4   \ifnum#1=1 % space intended
 5     \DTMwelshfmtordinal{a\u00e1}%
 6   \fi
 7 }

\DTMwelshfmtordinal
 8 \newcommand*{\DTMwelshfmtordinal}[1]{%
 9   \DTMtexorpdfstring{\protect\textrm{\textsuperscript{\#1}}}{\#1}%
10 }

\DTMwelshmonthname Welsh month names.
11 \newcommand*{\DTMwelshmonthname}[1]{%
12   \ifcase#1
13     \or
14     Ionawr%
15     \or
16     Chwefror%
17     \or
18     Mawrth%
19     \or
20     Ebrill%
21     \or
22     Mai%
23     \or
24     Mehefin%
25     \or
26     Gorffennaf%
27     \or
28     Awst%
29     \or
30     Medi%
31     \or
32     Hydref%
33     \or
34     Tachwedd%
35     \or
36     Rhagfyr%
37     \fi
38 }

```

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

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-welsh-utf8.1df` file as the non-ASCII characters are made active in that situation and would need protecting against expansion. Identify module
 39 \ProvidesDateTimeModule{welsh-ascii}[2019/10/28 v1.1]

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

```
\DTMwelshordinal
40 \newcommand*{\DTMwelshordinal}[1]{%
41   \number#1 % space intended
42   \ifnum#1=1 % space intended
43     \DTMwelshfmtordsuffix{a\protect\~{n}}%
44   \fi
45 }

\DTMwelshfmtordsuffix
46 \newcommand*{\DTMwelshfmtordsuffix}[1]{%
47   \DTMtexorpdfstring{\protect\textsuperscript{#1}}{#1}%
48 }

\DTMwelshmonthname Welsh month names.
49 \newcommand*{\DTMwelshmonthname}[1]{%
50   \ifcase#1
51     \or
52     Ionawr%
53     \or
54     Chwefror%
55     \or
56     Mawrth%
57     \or
58     Ebrill%
59     \or
60     Mai%
61     \or
62     Mehefin%
63     \or
64     Gorffennaf%
65     \or
66     Awst%
67     \or
68     Medi%
69     \or
70     Hydref%
71     \or
72     Tachwedd%
73     \or
74     Rhagfyr%
75     \fi
76 }
```

1.3 Main Welsh Module (`datetime2-welsh.ldf`)

Identify Module

```
77 \ProvidesDateTimeModule{welsh}[2019/10/28 v1.1]
```

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

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

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

```
79 \ifxetex
80   \RequireDateTimeModule{welsh-utf8}
81 \else
82   \ifluatex
83     \RequireDateTimeModule{welsh-utf8}
84   \else
85     \RequireDateTimeModule{welsh-ascii}
86   \fi
87 \fi
```

Define the `welsh` style. The time style is the same as the `default` style provided by `datetime2`. This may need correcting. For example, if a 12 hour style similar to the `englishampm` (from the `english-base` module) is required.

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

<code>\DTMwelshdaymonthsep</code>	The separator between the day and month for the text format. 88 \newcommand*{\DTMwelshdaymonthsep}{\space}
<code>\DTMwelshmonthyearsep</code>	The separator between the month and year for the text format. 89 \newcommand*{\DTMwelshmonthyearsep}{\space}
<code>\DTMwelshdatetimesep</code>	The separator between the date and time blocks in the full format (either text or numeric). 90 \newcommand*{\DTMwelshdatetimesep}{\space}
<code>\DTMwelshtimezonesep</code>	The separator between the time and zone blocks in the full format (either text or numeric). 91 \newcommand*{\DTMwelshtimezonesep}{\space}
<code>\DTMwelshdatesep</code>	The separator for the numeric date format. 92 \newcommand*{\DTMwelshdatesep}{/}
<code>\DTMwelshtimesep</code>	The separator for the numeric time format. 93 \newcommand*{\DTMwelshtimesep}{:}

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

```
94 \DTMdefkey{welsh}{daymonthsep}{\renewcommand*{\DTMwelshdaymonthsep}{#1}}
95 \DTMdefkey{welsh}{monthyearsep}{\renewcommand*{\DTMwelshmonthyearsep}{#1}}
96 \DTMdefkey{welsh}{datetimesep}{\renewcommand*{\DTMwelshdatetimesep}{#1}}
97 \DTMdefkey{welsh}{timezonesep}{\renewcommand*{\DTMwelshtimezonesep}{#1}}
98 \DTMdefkey{welsh}{datesep}{\renewcommand*{\DTMwelshdatesep}{#1}}
99 \DTMdefkey{welsh}{timesep}{\renewcommand*{\DTMwelshtimesep}{#1}}
```

Define a setting to change the ordinal suffix style.

```
100 \DTMdefchoicekey{welsh}{ord}{[@dtm@val@dtm@nr]{level,raise,omit,sc}}{%
101   \ifcase@dtm@nr\relax
102     \renewcommand*{\DTMwelshfmtordsuffix}[1]{##1}%
103   \or
104     \renewcommand*{\DTMwelshfmtordsuffix}[1]{%
105       \DTMtexorpdfstring{\protect\textsuperscript{##1}}{##1}}%
106   \or
107     \renewcommand*{\DTMwelshfmtordsuffix}[1]{%
108       \DTMtexorpdfstring{\protect\textsc{##1}}{##1}}%
109   \or
110     \renewcommand*{\DTMwelshfmtordsuffix}[1]{%
111       \DTMtexorpdfstring{\protect\textsc{##1}}{##1}}%
112 }
```

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.

```
113 \DTMdefboolkey{welsh}{mapzone}{true}{}
```

The default is to use mappings.

```
114 \DTMsetbool{welsh}{mapzone}{true}
```

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

```
115 \DTMdefboolkey{welsh}{showdayofmonth}{true}{}
```

The default is to show the day of month.

```
116 \DTMsetbool{welsh}{showdayofmonth}{true}
```

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

```
117 \DTMdefboolkey{welsh}{showyear}{true}{}
```

The default is to show the year.

```
118 \DTMsetbool{welsh}{showyear}{true}
```

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

```
119 \DTMnewstyle
120   {welsh}%
121   {%
122     \datestyle
123     \renewcommand*\DTMdisplaydate[4]{%
124       \DTMifbool{welsh}{showdayofmonth}{%
125         {\DTMwelshordinal{##3}\DTMwelshdaymonthsep}}{%
126         {}}}
```

```

126      \DTMwelshmonthname{##2}%
127      \DTMifbool{welsh}{showyear}%
128      {%
129          \DTMwelshmonthyearsep
130          \number##1 % space intended
131      }%
132      {}%
133  }%
134  \renewcommand*\DTMDisplaydate[4]{%
135      \DTMifbool{welsh}{showdayofmonth}%
136      {%
137          \DTMwelshordinal{##3}\DTMwelshdaymonthsep
138          \DTMwelshMonthname{##2}%
139      }%
140      { \DTMwelshMonthname{##2}%
141      \DTMifbool{welsh}{showyear}%
142      {%
143          \DTMwelshmonthyearsep
144          \number##1 % space intended
145      }%
146      {}%
147  }%
148  }%
149  {%
150      \DTMsettimestyle{default}%
151  }%
152  {%
153      \DTMresetzones
154      \DTMwelshzonemaps
155      \renewcommand*\DTMdisplayzone[2]{%
156          \DTMifbool{welsh}{mapzone}%
157          {\DTMusezonemapordefault{##1}{##2}}%
158          {%
159              \ifnum##1<0 \else+\fi\DTMtwodigits{##1}%
160              \ifDTMshowzoneminutes\DTMwelshtimesep\DTMtwodigits{##2}\fi
161          }%
162      }%
163  }%
164  {%
165      \renewcommand*\DTMdisplay[9]{%
166          \ifDTMshowdate
167              \DTMdisplaydate{##1}{##2}{##3}{##4}%
168              \DTMwelshdatetimesep
169          \fi
170          \DTMdisplaytime{##5}{##6}{##7}%
171          \ifDTMshowzone
172              \DTMwelshtimezonesep
173              \DTMdisplayzone{##8}{##9}%
174          \fi
175      }%

```

```

176   \renewcommand*\{\DTMDisplay\}[9]{%
177     \ifDTMshowdate
178       \DTMDisplaydate{##1}{##2}{##3}{##4}%
179       \DTMwelshdatetimesep
180     \fi
181     \DTMdisplaytime{##5}{##6}{##7}%
182     \ifDTMshowzone
183       \DTMwelshtimezonesep
184       \DTMdisplayzone{##8}{##9}%
185     \fi
186   }%
187 }%

```

Define numeric style.

```

188 \DTMnewstyle
189 {welsh-numeric}%
190 {%
191   \renewcommand*\DTMdisplaydate[4]{%
192     \DTMifbool{welsh}{showdayofmonth}%
193     {%
194       \number##3 % space intended
195       \DTMwelshdatesep
196     }%
197     {}%
198     \number##2 % space intended
199     \DTMifbool{welsh}{showyear}%
200     {%
201       \DTMwelshdatesep
202       \number##1 % space intended
203     }%
204     {}%
205   }%
206   \renewcommand*\{\DTMDisplaydate\}[4]{\DTMdisplaydate{##1}{##2}{##3}{##4}}%
207 }%
208 {%
209   \renewcommand*\DTMdisplaytime[3]{%
210     \number##1
211     \DTMwelshtimesep\DTMtwodigits{##2}%
212     \ifDTMshowseconds\DTMwelshtimesep\DTMtwodigits{##3}\fi
213   }%
214 }%
215 {%
216   \DTMresetzones
217   \DTMwelshzonemaps
218   \renewcommand*\{\DTMdisplayzone\}[2]{%
219     \DTMifbool{welsh}{mapzone}%
220     {\DTMusezonemapordefault{##1}{##2}}%
221   }%
222   \ifnum##1<0 \else+\fi\DTMtwodigits{##1}%
223   \ifDTMshowzoneminutes\DTMwelshtimesep\DTMtwodigits{##2}\fi

```

```

224      }%
225    }%
226  }%
227 {%
228   \renewcommand*\{\DTMdisplay}[9]{%
229     \ifDTMshowdate
230       \DTMdisplaydate{##1}{##2}{##3}{##4}%
231       \DTMwelshdatetimesep
232     \fi
233     \DTMdisplaytime{##5}{##6}{##7}%
234   \ifDTMshowzone
235     \DTMwelshtimezonesep
236     \DTMdisplayzone{##8}{##9}%
237   \fi
238 }%
239   \renewcommand*\{\DTMDisplay}{\DTMdisplay}%
240 }

```

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

```

241 \newcommand*\{\DTMwelshzonemaps}{%
242   \DTMdefzonemap{00}{00}{GMT}%
243   \DTMdefzonemap{01}{00}{BST}%
244 }

```

Switch style according to the `useregional` setting.

```

245 \DTMifcaseregional
246 {}% do nothing
247 {\DTMsetstyle{welsh}}
248 {\DTMsetstyle{welsh-numeric}}

```

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

```

249 \ifcsundef{date\CurrentTrackedDialect}
250 {}%
251   \ifundef\datewelsh
252     {}% do nothing
253   }%
254   {}%
255     \def\datewelsh{%
256       \DTMifcaseregional
257         {}% do nothing
258         {\DTMsetstyle{welsh}}%
259         {\DTMsetstyle{welsh-numeric}}%
260     }%
261   }%
262 }%
263 {}%
264   \csdef{date\CurrentTrackedDialect}{%
265     \DTMifcaseregional

```

```
266     {}% do nothing
267     {\DTMsetstyle{welsh}}%
268     {\DTMsetstyle{welsh-numeric}}%
269 }%
270 }%
```

Change History

1.0	1.1
General: Initial release 1, 3, 4	General: removed unwanted space 8 renamed scratch variables 5

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