English Module for datetime2 Package

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Abstract

This is the English 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 on (text or numeric) for the language styles to be set. Alternatively, you can set them in the document using \DTMsetstyle, but without the useregional setting on the style will be changed by \date(language).

Contents

1	Introduction	3
2	Base module	4
3	English (no region)	4
4	English (GB)	5
5	English (US)	6
6	English (CA)	g
7	English (AU)	g
8	English (NZ)	11
9	English (GG)	11
10	English (JE)	11
11	English (IM)	11
12	English (MT)	11
13	English (IE)	12

14 The Code		12	
14.1 Base Code (datetime2-english-base.ldf)		12	
14.2 Default English Code (datetime2-english.ldf)		17	
14.3 English (GB) Code (datetime2-en-GB.ldf)		19	
14.4 English (US) Code (datetime2-en-US.ldf)		24	
14.5 English (Canada) Code (datetime2-en-CA.ldf)		32	
14.6 English (Australia) Code (datetime2-en-AU.ldf)		40	
14.7 English (New Zealand) Code (datetime2-en-NZ.ldf)		47	
14.8 English (GG) Code (datetime2-en-GG.ldf)		52	
14.9 English (JE) Code (datetime2-en-JE.ldf)		57	
14.10English (IM) Code (datetime2-en-IM.ldf)		62	
14.11English (MT) Code (datetime2-en-MT.ldf)		67	
14.12English (IE) Code (datetime2-en-IE.ldf)		72	
Change History			
Index			

1 Introduction

This bundle provides the English modules for datetime2. The basic english module is used when english has been detected as one of the document's language settings but no regional variant has been detected. Note that the tracklang package can't detect the variant passed to polyglossia unless it's been passed as a document class option or passed to tracklang. See the tracklang documentation for further details.

Here are some examples for British English with polyglossia:

1. Pass british in the document class option list:

```
\documentclass[british]{article}
\usepackage{fontspec}
\usepackage{polyglossia}
\setmainlanguage[variant=uk]{english}
\usepackage{datetime2}

(You need to set the useregional option to either text or numeric to enable the en-GB or en-GB-numeric styles.)
```

2. Pass en-GB in the document class option list:

```
\documentclass[en-GB]{article}
\usepackage{fontspec}
\usepackage{polyglossia}
\setdefaultlanguage[variant=uk]{english}
\usepackage{datetime2}

(You need to set the useregional option to either text or numeric to enable the en-GB or en-GB-numeric styles.)
```

3. Pass en-GB to datetime2:

```
\documentclass{article}
\usepackage{fontspec}
\usepackage{polyglossia}
\setdefaultlanguage[variant=uk]{english}
\usepackage[en-GB]{datetime2}
```

In this last example, the style is automatically switched to en-GB.

Note that if you pass the language setting through the datetime2 package option list (as in the above example) this will also set the useregional option to text.

If you're not using babel or polyglossia but still want to use the English modules, you can similarly use the language or regional setting in the document class or datetime2 package options. Note that since datetime2 loads tracklang, this setting will be remembered by any subsequently loaded packages that use tracklang to determine the document language settings.

For example, to use the en-GB date style without loading babel or polyglossia:

```
\documentclass{article}
\usepackage[en-GB]{datetime2}
\begin{document}
\today
\end{document}
```

If you want to change the settings for a particular module, you must use the module's name (such as en-GB) rather than a babel or polyglossia synonym (such as british or uk). For example:

\DTMlangsetup[en-GB]{ord=raise}

2 Base module

The english-base module is loaded by all the English modules. It provides the commands that produce text, such as the month names. It also provides a 12 hour time style called englishampm.

3 English (no region)

The default english module is used when English has been set as one of the document languages, but no regional variant has been detected or there is no support for the given region.

This basic module provides the date-time style english which uses the same style as LATEX's default \today. (That is, the middle-endian date style.) This style ignores most of the settings, including showdow and the date separators. The time style uses the englishampm style defined in the base module which uses the package-wide hourminsep setting. The zone style is the same as that provided by the default style. (That is, numerical ISO or just "Z".) The full date, time and zone style (used by \DTMdisplay) have spaces between each block. The showdate, showzone, showseconds, showzoneminutes and showisoZ datetime2 settings are honoured.

This module checks for the existence of $\del{dateenglish}$ or $\del{dateect}$ (in the case of an unknown English variant that doesn't match any of the supplied English dialect modules). If it exists, the command will be redefined so that it sets the date, time and zone styles to english if the useregional setting is set to text. If the setting is numeric the default numeric style will be used as the lack of region makes it ambiguous.

4 English (GB)

The en-GB module is loaded if British English has been specified. This may be specified through options such as british, en-GB or UKenglish. (See the note on polyglossia in §1.)

This module defines the text style en-GB and the numeric style en-GB-numeric style. The en-GB style will automatically be set if the useregional option is set to text. The en-GB-numeric style will automatically be set if the useregional option is set to numeric.

The en-GB time style uses the base englishampm style.

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. This defaults to \space. Ignored if the showdow option is false.
- daymonthsep The separator between the day and the month name in the en-GB style. This defaults to \space.
- monthyearsep The separator between the month name and year in the en-GB style. This defaults to \space.
- datesep The separator between the date numbers in the en-GB-numeric style. This defaults to / (slash).
- timesep The separator between the hours and minutes in the en-GB-numeric style. This defaults to : (colon).
- datetimesep The separator between the date and time for the full date-time format (as used by \DTMdisplay) for both the en-GB and en-GB-numeric styles. This defaults to \space.
- timezonesep The separator between the time and zone for the full date-time format (as used by \DTMdisplay) for both the en-GB and en-GB-numeric styles. This defaults to \space.
- abbr This is a boolean key. If true, the month (and week day name if shown) is abbreviated for the en-GB style. The default is false.
- mapzone This is a boolean key. If true the time zone mappings are applied. (The default is true.) The en-GB and en-GB-numeric styles set the mappings GMT (UTC+0) and BST (UTC+1). Other time zone mappings that have previously been set (for example, by another regional style) will remain unchanged unless you redefine \DTMresetzones to reset or unset them.
- ord This may take one of the following values: level (ordinal suffix level with

the number), raise (ordinal suffix as a superscript¹), omit (omit the ordinal suffix) and sc (small caps ordinal suffix). If you want a different style you can redefine \DTMenGBfmtordsuffix which takes one argument (the suffix). Take care if \DTMenGBfmtordsuffix contains fragile commands, as they will need to be protected against expansion.

showdayofmonth A boolean key that determines whether or not to show the day of the month. The default value is true. If false the day-month separator is also omitted.

showyear A boolean key that determines whether or not to show the year. The default value is true. If false the month-year separator is also omitted.

The above settings are specific to this module. In addition, the **showdow** boolean option provided by the **datetime2** package is also checked to determine whether or not to show the day of the week in the **en-GB** style.

The time zone checks the mapzone setting (described above). If it's set, then \DTMusezonemapordefault is used otherwise a numeric $\langle TZH \rangle \langle sep \rangle \langle TZM \rangle$ is displayed. (The minute part will be omitted if the datetime2 package option showzoneminutes is set to false. The zone style ignores the showisoZ option.

5 English (US)

The en-US module is loaded if US English has been specified. This may be done through options such as american, en-US or USenglish. (See the note on polyglossia in §1.)

This module defines the styles en-US and en-US-numeric. There a number of settings that can be used in \DTMlangsetup to modify these styles. They are:

monthdaysep The separator between the month name and the day in the en-US style. The default is \space

dayyearsep The separator between the day and the year in the en-US style. The default is ,\space

dowmonthsep The separator between the day-of-week name and the month name in the en-US style. The default is \space. This is new to version 1.02, which now supports the showdow package option.

datesep The separator between the date numbers in the en-US-numeric format.

¹Just in case you plan to send me an irate email on this issue, the superscript is a regional handwriting style not an invention of word processors although they have adopted the style. I was using this style in school in the 1970s before I'd ever heard of a word processor so please don't tell me I've picked up the habit from Word. I'm not a time-traveller, nor were my primary school teachers—that I know of! If, conversely, you want to know why the default is level rather than raise, it's because the main purpose of the datetime2 package is to provide an *expandable* text format and \textsuperscript isn't expandable.

- timesep The separator between the hour and minutes in the en-US-numeric format.
- datetimesep The separator between the date and the time for the full style used by \DTMdisplay for the en-US and en-US-numeric. The default is \space
- timezonesep The separator between the times and zone for the full style used by \DTMdisplay. The default is \space
- abbr This is a boolean key. If true, the month is abbreviated. The default is false.
- ord The same as the en-GB style except that the default value is omit.
- showdayofmonth A boolean key that determines whether or not to show the day of the month. The default value is true. If false the day-year separator is also omitted.
- showyear A boolean key that determines whether or not to show the year. The default value is true. If false the day-year separator is also omitted if the day of the month is shown otherwise both the day-year and month-day separators are omitted.
- mapzone This is a boolean key. If true the time zone mappings are applied. (The default is false.) The en-US style sets the mappings ADT (UTC-3), AST (UTC-4), EST (UTC-5), CST (UTC-6), MST (UTC-7) and PST (UTC-8). If your want to use different mappings, you can redefine \DTMenUSzonemaps. Other time zone mappings that have previously been set (for example, by another regional style) will remain unchanged unless you redefine \DTMresetzones to reset or unset them.
- zone (new to v1.03) As mentioned above, if the mapzone option is set, the time zone mappings are set using \DTMenUSzonemaps. This option can be used to both append to \DTMenUSzonemaps and set the new mappings. The zone option may take one of the following values:
 - std or standard: set the standard time zone mappings AST (UTC-4), EST (UTC-5), CST (UTC-6), MST (UTC-7), PST (UTC-8), AKST (UTC-9), HAST (UTC-10), SST (UTC-10), ChST (UTC+10).
 - dst or daylight: set the daylight savings time zone mappings ADT (UTC-3), EDT (UTC-4), CDT (UTC-6), MDT (UTC-6), PDT (UTC-7), AKDT (UTC-8), HADT (UTC-9).
 - atlantic: set the Atlantic standard and daylight saving mappings AST (UTC-4) and ADT (UTC-3).
 - eastern: set the Eastern standard and daylight saving mappings EST (UTC-5) and EDT (UTC-4).
 - central: set the Central standard and daylight saving mappings CST (UTC-6) and CDT (UTC-5).

- mountain: set the Mountain standard and daylight saving mappings MST (UTC-7) and MDT (UTC-6).
- pacific: set the Pacific standard and daylight saving mappings PST (UTC-8) and PDT (UTC-7).
- alaska: set the Alaska standard and daylight saving mappings AKST (UTC-9) and AKDT (UTC-8).
- hawaii-aleutian or hawaii or aleutian: set the Hawaii-Aleutian standard and daylight saving mappings HAST (UTC-10) and HADT (UTC-9).
- samoa: set the Samoa Standard Time mapping SST (UTC-11).
- chamorro: set the Chamorro Standard Time mapping ChST (UTC-10).
- clear: redefines \DTMenUSzonemaps to empty and clears the mappings (using \DTMclearmap) for UTC-3, UTC-4, UTC-5, UTC-6, UTC-7, UTC-8, UTC-9, UTC-10, UTC-11 and UTC+10.

Other existing mappings are unchanged. For example,

\DTMlangsetup[en-US]{zone=atlantic,zone=pacific}

will set the mappings AST (UTC-4), ADT (UTC-3), PST (UTC-8) and PDT (UTC-7). Any other time zone offset mappings that were previously set will remain the same. However:

\DTMlangsetup[en-US]{zone=atlantic,zone=eastern}

will result in the mappings ADT (UTC-3), EST (UTC-5) and EDT (UTC-4), since the EDT mapping will overwrite the AST mapping. Again, any other time zone offset mappings that were previously set remain the same.

Another example:

\DTMlangsetup[en-US]{zone=dst,zone=atlantic,zone=pacific}

This will first set the daylight saving mappings and then set the Atlantic mappings, which means that UTC-4 will now be mapped to AST instead of EDT, and then it will set the Pacific mappings, which means that UTC-8 will now be mapped to PST instead of AKDT.

The en-US time style uses the englishampm style. The en-US-numeric uses a 24 hour style. The time zone checks the mapzone setting (described above). If it's set, then \DTMusezonemapordefault is used otherwise a numeric $\langle TZH \rangle$: $\langle TZM \rangle$ is displayed. (The minute part will be omitted if the datetime2 package option showzoneminutes is set to false. The zone style ignores the showisoZ option.

6 English (CA)

The en-CA module is loaded if Canadian English has been specified. This may be done through options such as en-CA or canadian. (See the note on polyglossia in §1.)

This module provides the en-CA and en-CA-numeric styles that are virtually identical to the en-US and en-US-numeric style. These have the same options as for the US styles but the zone maps are provided by \DTMenCAzonemaps, which can be redefined as required. As from v1.03, there's also a zone setting that works in a similar manner to the zone setting for the en-US module described above. For en-CA, the available values are:

- std or standard: set the standard time zone mappings NST (UTC-3:30), AST (UTC-4), EST (UTC-5), CST (UTC-6), MST (UTC-7), PST (UTC-8).
- dst or daylight: set the daylight savings time zone mappings NDT (UTC-2:30), ADT (UTC-3), EDT (UTC-4), CDT (UTC-6), MDT (UTC-6), PDT (UTC-7).
- newfoundland: set the Newfoundland standard and daylight saving mappings NST (UTC-3:30) and NDT (UTC-2:30).
- atlantic: set the Atlantic standard and daylight saving mappings AST (UTC-4) and ADT (UTC-3).
- eastern: set the Eastern standard and daylight saving mappings EST (UTC-5) and EDT (UTC-4).
- central: set the Central standard and daylight saving mappings CST (UTC-6) and CDT (UTC-5).
- mountain: set the Mountain standard and daylight saving mappings MST (UTC-7) and MDT (UTC-6).
- pacific: set the Pacific standard and daylight saving mappings PST (UTC-8) and PDT (UTC-7).
- clear: redefines \DTMenCAzonemaps to empty and clears the mappings (using \DTMclearmap) for UTC-2:30, UTC-3:30, UTC-3, UTC-4, UTC-5, UTC-6, UTC-7 and UTC-8.

For example, if you live in a region that doesn't implement daylight saving: \DTMlangsetup[en-CA]{zone=std}

7 English (AU)

The en-AU module is loaded if Australian English has been specified. This may be done through options such as en-AU or australian. (See the note on polyglossia in §1.)

This module provides the en-AU and en-AU-numeric styles that are virtually identical to the en-GB and en-GB-numeric styles. These have the same options as the GB styles (except that the default value of ord is omit rather than level and the default value of mapzone is false) but the zone maps are provided by \DTMenAUzonemaps, which can be redefined as required. This doesn't take all zones into account, but as from v1.03, there is now the zone option, which modifies \DTMenAUzonemaps. This works in much the same way as for the en-US and en-CA options of the same name, described above. Available values for the en-AU module:

- std or standard: set the standard time zone mappings CCT (UTC+6:30), CXT (UTC+7), AWST (UTC+8), ACWST (UTC+8:45), ACST (UTC+9:30), AEST (UTC+10), LHST (UTC+10:30), NFT (UTC+11).
- dst or daylight: set the daylight savings time zone mappings AWDT (UTC+9), ACDT (UTC+10:30), AEDT (UTC+11). Note that conflicting zones are missing, such as LHDT (UTC+11) which coincides with AEDT.
- central: set the Australian Central standard and daylight saving mappings ACST (UTC+9:30) and ACDT (UTC+10:30).
- central-western: set the Australian Central Western Standard Time mapping ACWST (UTC+8:45).
- western: set the Australian Western standard and daylight saving mappings AWST (UTC+8) and AWDT (UTC+9).
- eastern: set the Australian Eastern standard and daylight saving mappings AEST (UTC+10) and AEDT (UTC+11).
- christmas: set the Christmas Island Time mapping CXT (UTC+7).
- lord-howe: set the Lord Howe Island standard and daylight saving mappings LHST (UTC+10:30) and LHDT (UTC+11).
- norfolk: set the Norfolk Island time mapping NFT (UTC+11).
- cocos or keeling: set the Cocos (Keeling) island time mapping CCT (UTC+6:30).
- clear: redefines \DTMenAUzonemaps to empty and clears the mappings (using \DTMclearmap) for UTC+6:30, UTC+7, UTC+8, UTC+8:45, UTC+9, UTC+9:30, UTC+10, UTC+10:30, UTC+11.

Example:

\DTMlangsetup[en-AU]{zone=cocos,zone=christmas}

8 English (NZ)

The en-NZ module is loaded if New Zealand English has been specified. This may be done through options such as en-NZ or newzealand. (See the note on polyglossia in §1.)

This module provides the en-NZ and en-NZ-numeric styles that are virtually identical to the AU styles but the zone maps are provided by \DTMenNZzonemaps, which can be redefined as required. The default NZ mappings are NZST (UTC+12), CHAST (UTC+12:45), NZDT (UTC+13), CHADT (UTC+13:45).

9 English (GG)

The Guernsey English en-GG and en-GG-numeric styles are like the British English en-GB and en-GB-numeric styles, but replace enGB with enGG in the command names. This style can be loaded by using en-GG as a document class option or as a package option for either tracklang or datetime2.

10 English (JE)

The Jersey English en-JE and en-JE-numeric styles are like the British English en-GB and en-GB-numeric styles, but replace enGB with enJE in the command names. This style can be loaded by using en-JE as a document class option or as a package option for either tracklang or datetime2.

11 English (IM)

The Isle of Man en-IM and en-IM-numeric styles are like the British English en-GB and en-GB-numeric styles, but replace enGB with enIM in the command names. This style can be loaded by using en-IM as a document class option or as a package option for either tracklang or datetime2.

12 English (MT)

The Malta English en-MT and en-MT-numeric styles are like the British English en-GB and en-GB-numeric styles, but replace enGB with enMT in the command names. This style can be loaded by using en-MT as a document class option or as a package option for either tracklang or datetime2.

There are two main differences in the en-GB/en-GB-numeric and en-MT/en-MT-numeric styles: the ord option (for the text styles) defaults to omit and the CET (UTC+1) and CEST (UTC+2) time zone mappings are added (for both the text and numeric styles).

13 English (IE)

The Republic of Ireland English en-IE and en-IE-numeric styles are like the British English en-GB and en-GB-numeric styles, but replace enGB with enIE in the command names. This style can be loaded by using en-IE as a document class option or as a package option for either tracklang or datetime2. You will need at least version 1.2 of the tracklang package installed.

The only difference in the en-GB/en-GB-numeric and en-IE/en-IE-numeric styles is that the UTC+1 time zone is mapped to IST instead of BST. If you prefer WET/WEST time zones, you can do:

```
\renewcommand*{\DTMenIEzonemaps}{%
\DTMdefzonemap{00}{00}{\WET}\%
\DTMdefzonemap{01}{00}{\WEST}\%
}
```

For Irish Gaelic you need the irish module instead.

14 The Code

14.1 Base Code (datetime2-english-base.ldf)

This file contains the code common to all the English regional variations. Identify module

1 \ProvidesDateTimeModule{english-base}[2016/03/09 v1.04 (NLCT)]

Since the main emphasize of the datetime2 package is to provide expandable dates where possible, the commands here need to be expandable. (Anything that wasn't expandable would need to be protected.) Therefore the default ordinal format is a simple expandable format (which is why fmtcount isn't being used).

\DTMenglishordinal

```
2 \newcommand*{\DTMenglishordinal}[1]{%
    \number#1 % space intended
    \DTMenglishfmtordsuffix{%
      \ifcase#1
      \or \DTMenglishst
6
      \or \DTMenglishnd
      \or \DTMenglishrd
      \or \DTMenglishth
9
      \or \DTMenglishth
10
      \or \DTMenglishth
11
      \or \DTMenglishth
12
      \or \DTMenglishth
13
      \or \DTMenglishth
14
      \or \DTMenglishth
15
      \or \DTMenglishth
16
17
      \or \DTMenglishth
      \or \DTMenglishth
```

```
\or \DTMenglishth
                          21
                                 \or \DTMenglishth
                          22
                                 \or \DTMenglishth
                          23
                          24
                                 \or \DTMenglishth
                          25
                                 \or \DTMenglishth
                                 \or \DTMenglishst
                          26
                                 \or \DTMenglishnd
                          27
                                 \or \DTMenglishrd
                          28
                                 \or \DTMenglishth
                          29
                                 \or \DTMenglishth
                          30
                          31
                                 \or \DTMenglishth
                                 \or \DTMenglishth
                          32
                                 \or \DTMenglishth
                          33
                                 \or \DTMenglishth
                          34
                                 \or \DTMenglishth
                          35
                                 \or \DTMenglishst
                          36
                          37
                                 \fi
                          38
                              }%
                          39 }
                              Just in case a user has some need to change the ordinal suffixes, these are
                          provided as commands.
          \DTMenglishst
                          40 \newcommand*{\DTMenglishst}{st}
          \DTMenglishnd
                          41 \mbox{newcommand}*{\DTMenglishnd}{nd}
          \DTMenglishrd
                          42 \newcommand*{\DTMenglishrd}{rd}
          \DTMenglishth
                          43 \newcommand*{\DTMenglishth}{th}
                          The suffix can have a format applied to it (for example, made a superscript or con-
\DTMenglishfmtordsuffix
                          verted to small caps). The default ignores the argument, which makes it consistent
                          with TEX's default date format. This can be changed by regional modules.
                          44 \newcommand*{\DTMenglishfmtordsuffix}[1]{}
   \DTMenglishmonthname
                          English month names.
```

\or \DTMenglishth

\or \DTMenglishth

19

20

45 \newcommand*{\DTMenglishmonthname}[1]{%

\ifcase#1

January%

February%

\or

 $\frac{46}{47}$

48

49

50

```
\or
51
52
    March%
53
    \or
    April%
54
55
    \or
56
    May%
57
    \or
58
    June%
    \or
59
    July%
60
61
    \or
    August%
62
63
    \or
64
    September%
    \or
65
    October%
66
67
    \or
68
    November%
69
    \or
    December%
70
71
    \fi
72 }
```

\DTMenglishshortmonthname

Abbreviated English month names.

```
73 \newcommand*{\DTMenglishshortmonthname}[1]{\%}
74
    \ifcase#1
75
    \or
76
    Jan%
77
    \or
    Feb%
78
79
    \or
80
    Mar%
81
    \or
82
    Apr%
83
    \or
84
    May%
85
    \or
86
    Jun%
    \or
87
    Jul%
88
89
    \or
90
    Aug%
91
    \or
92
    Sep%
93
    \or
94
    Oct%
95
    \or
```

96

97

98

 ${\tt Nov\%}$

\or Dec%

```
99
                              \fi
                        100 }
\DTMenglishweekdayname English day of week names.
                        101 \newcommand*{\DTMenglishweekdayname}[1]{%
                              \ifcase#1
                        102
                              Monday%
                        103
                        104
                              \or
                        105
                              Tuesday%
                        106
                              \or
                              Wednesday%
                        107
                        108
                              \or
                              Thursday%
                        109
                        110
                              \or
                        111
                              Friday%
                        112
                              \or
                              Saturday%
                        113
                              \or
                        114
                              Sunday%
                        115
                        116
                              \fi
                        117 }
\DTMenglishweekdayname English abbreviated day of week names.
                        118 \newcommand*{\DTMenglishshortweekdayname}[1]{%
                        119
                              \ifcase#1
                             Mon%
                        120
                              \or
                        121
                              Tue%
                        122
                        123
                              \or
                        124
                              Wed%
                        125
                              \or
                        126
                             Thu%
                        127
                              \or
                        128
                             Fri%
                        129
                              \or
                        130
                              Sat%
                        131
                              \or
                        132
                              Sun%
                        133
                              \fi
                        134 }
                             12 hour time tags.
         \verb|\DTMenglisham|
                        135 \newcommand*\DTMenglisham{am}%
         \DTMenglishpm
```

136 \newcommand*\DTMenglishpm{pm}%

```
\DTMenglishmidnight
                     137 \newcommand*\DTMenglishmidnight{midnight}%
    \DTMenglishnoon
                     138 \newcommand*\DTMenglishnoon{noon}%
                         am/pm time style.
 \DTMenglishampmfmt
                     139 \newcommand*{\DTMenglishampmfmt}[1]{#1}
 \DTMenglishtimesep
                     140 \newcommand*{\DTMenglishtimesep}{\DTMsep{hourmin}}
                         This style ignores seconds.
                     141 \DTMnewtimestyle
                     142 {englishampm}% label
                         {%
                     143
                            \renewcommand*\DTMdisplaytime[3]{%
                     144
                     145
                               \ifnum##2=0
                     146
                                 \ifnum##1=12
                                   \DTMtexorpdfstring
                     147
                                     {\DTMenglishampmfmt{\DTMenglishnoon}}%
                     148
                                     {\DTMenglishnoon}%
                     149
                                 \else
                     150
                                   \ifnum##1=0
                     151
                     152
                                     \DTMtexorpdfstring
                                     {\DTMenglishampmfmt{\DTMenglishmidnight}}%
                     153
                                     {\DTMenglishmidnight}%
                     154
                                   \else
                     155
                                     \ifnum##1=24
                     156
                     157
                                       \DTMtexorpdfstring
                                       {\DTMenglishampmfmt{\DTMenglishmidnight}}%
                     158
                     159
                                       {\DTMenglishmidnight}%
                                     \else
                     160
                                       \ifnum##1<12
                     161
                                         \number##1
                     162
                                         \DTMtexorpdfstring
                     163
                                         {\DTMenglishampmfmt{\DTMenglisham}}%
                     164
                                         {\DTMenglisham}%
                     165
                                       \else
                     166
                                         \number\numexpr##1-12\relax
                     167
                                         \DTMtexorpdfstring
                     168
                                         {\DTMenglishampmfmt{\DTMenglishpm}}%
                     169
                                         {\DTMenglishpm}%
                     170
                     171
                                       \fi
                     172
                                     \fi
                                   \fi
                     173
                                 \fi
                     174
```

```
\else
175
            \ifnum##1<13
176
              \ifnum##1=0
177
                12%
178
              \else
179
180
                \number##1
181
              \fi
              \DTMenglishtimesep\DTMtwodigits{##2}%
182
              \ifnum##1=12
183
 v1.03 bug fixed replaced \DTMenglisham with \DTMenglishpm
                \DTMtexorpdfstring
184
                {\DTMenglishampmfmt{\DTMenglishpm}}%
185
                {\DTMenglishpm}%
186
187
              \else
                \DTMtexorpdfstring
188
                {\DTMenglishampmfmt{\DTMenglisham}}%
189
190
                {\DTMenglisham}%
              \fi
191
            \else
192
193
              \number\numexpr##1-12\relax
              \DTMenglishtimesep\DTMtwodigits{##2}%
194
              \ifnum##1=24
195
 v1.03 bug fixed replaced \DTMenglishpm with \DTMenglisham
                \DTMtexorpdfstring
196
197
                {\DTMenglishampmfmt{\DTMenglisham}}%
                {\DTMenglisham}%
198
              \else
199
                \DTMtexorpdfstring
200
                {\DTMenglishampmfmt{\DTMenglishpm}}%
201
202
                {\DTMenglishpm}%
203
              \fi
            \fi
204
205
         \fi
206
       }%
207 }%
```

14.2 Default English Code (datetime2-english.ldf)

This file contains the style used if English is requested without a known region. It uses TEX's default date style. This style ignores the showdow (show day of week) setting.

Identify Module

```
208 \ensuremath{\mbox{\sc ProvidesDateTimeModule\{english\}[2016/03/09\ v1.04\ (NLCT)]}
```

Load the base English module.

```
209 \RequireDateTimeModule{english-base}
```

Define default English text style (TeX's default) labelled english. The time zone is just the default style (no mappings applied) but showisoZ setting checked.

The full style places a space between each block (date, time and zone). The numeric setting is ambiguous without a region so it will use the default style.

```
210 \DTMnewstyle
211
    {english}% label
212
    {% date style
213
      \renewcommand*{\DTMenglishfmtordsuffix}[1]{}%
      \renewcommand*\DTMdisplaydate[4]{%
214
215
        \DTMenglishmonthname{##2}\space\number##3, \number##1
216
      \renewcommand*{\DTMDisplaydate}[4]{\DTMdisplaydate{##1}{##2}{##3}{##4}}%
217
218 }%
219
    {% time style
      \renewcommand*{\DTMenglishtimesep}{\DTMsep{hourmin}}%
220
      \DTMsettimestyle{englishampm}%
221
222 }%
    {% zone style
223
224
      \DTMsetzonestyle{default}%
225 }%
    {% full style
226
      \renewcommand*{\DTMdisplay}[9]{%
227
228
       \ifDTMshowdate
229
        \DTMdisplaydate{##1}{##2}{##3}{##4}%
230
        \space
       \fi
231
       \DTMdisplaytime{##5}{##6}{##7}%
232
       \ifDTMshowzone
233
234
        \space
        \DTMdisplayzone{##8}{##9}%
235
236
       \fi
237
      }%
      \renewcommand*{\DTMDisplay}{\DTMdisplay}%
238
239 }%
 Switch the style according to the useregional setting.
240 \DTMifcaseregional
241 {}% do nothing
242 {\DTMsetstyle{english}}%
243 {\DTMsetstyle{default}}%
    Redefine \dateenglish (or \date(dialect)) to prevent babel from resetting
 \today. (For this to work, babel must already have been loaded if it's required.)
244 \ifcsundef{date\CurrentTrackedDialect}
245 {%
     \ifundef\dateenglish
246
     {% do nothing
247
     }%
248
249
     {%
250
       \def\dateenglish{%
         \DTMifcaseregional
251
         {}% do nothing
252
```

```
{\DTMsetstyle{english}}%
253
254
          {\DTMsetstyle{default}}%
       }%
255
     }%
256
257 }%
258 {%
259
     \csdef{date\CurrentTrackedDialect}{%
260
        \DTMifcaseregional
       {}% do nothing
261
       {\DTMsetstyle{english}}%
262
       {\DTMsetstyle{default}}%
263
     }%
264
265 }%
```

14.3 English (GB) Code (datetime2-en-GB.ldf)

This file contains the British English style. Identify this module.

266 \ProvidesDateTimeModule{en-GB}[2016/03/09 v1.04 (NLCT)]

Load base English module.

```
267 \ \texttt{RequireDateTimeModule\{english-base}\}
```

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

\DTMenGBdowdaysep

The separator between the day of week name and the day of month number for the text format.

268 \newcommand*{\DTMenGBdowdaysep}{\space}

\DTMenGBdaymonthsep

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

269 \newcommand*{\DTMenGBdaymonthsep}{\space}

\DTMenGBmonthyearsep

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

270 \newcommand*{\DTMenGBmonthyearsep}{\space}

\DTMenGBdatetimesep

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

271 \newcommand*{\DTMenGBdatetimesep}{\space}

\DTMenGBtimezonesep

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

272 \newcommand*{\DTMenGBtimezonesep}{\space}

\DTMenGBdatesep The separator for the numeric date format.

273 \newcommand*{\DTMenGBdatesep}{/}

\DTMenGBtimesep

The separator for the numeric time format.

 $274 \newcommand*{\DTMenGBtimesep}{:}$

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

```
 275 \DTMdefkey{en-GB}{dowdaysep}{\{renewcommand*{\DTMenGBdowdaysep}\{\#1\}\} }  276 \DTMdefkey{en-GB}{daymonthsep}{\{renewcommand*{\DTMenGBdaymonthsep}\{\#1\}\} }  277 \DTMdefkey{en-GB}{monthyearsep}{\{renewcommand*{\DTMenGBmonthyearsep}\{\#1\}\} }  278 \DTMdefkey{en-GB}{datetimesep}{\{renewcommand*{\DTMenGBdatetimesep}\{\#1\}\} }  279 \DTMdefkey{en-GB}{timezonesep}{\{renewcommand*{\DTMenGBtimezonesep}\{\#1\}\} }  280 \DTMdefkey{en-GB}{datesep}{\{renewcommand*{\DTMenGBdatesep}\{\#1\}\} }  281 \DTMdefkey{en-GB}{timesep}{\{renewcommand*{\DTMenGBtimesep}\{\#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.

```
282 \DTMdefboolkey{en-GB}{abbr}[true]{}
```

The default is the full name.

```
283 \DTMsetbool{en-GB}{abbr}{false}
```

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

```
284 \DTMdefboolkey{en-GB}{mapzone}[true]{}
```

The default is to use mappings.

```
285 \DTMsetbool{en-GB}{mapzone}{true}
```

Define a boolean key that determines whether to show or hide the day of the month. (Called showdayofmonth instead of showday to avoid confusion with the day of the week.)

```
286 \label{lem:condition} 286 \label{lem:condition} If true \cite{the condition} \cite{the condition} and the condition \cite{the condition} \cite{the con
```

The default is to show the day of the month.

```
287 \DTMsetbool{en-GB}{showdayofmonth}{true}
```

Define a boolean key that determines whether to show or hide the year.

```
288 \DTMdefboolkey{en-GB}{showyear}[true]{}
```

The default is to show the year.

```
289 \DTMsetbool{en-GB}{showyear}{true}
```

\DTMenGBfmtordsuffix Define the ordinal suffix to be used by this style.

```
290 \newcommand*{\DTMenGBfmtordsuffix}[1]{#1}
```

Define a setting to change the ordinal suffix style.

```
291 \DTMdefchoicekey{en-GB}{ord}[\val\nr]{level,raise,omit,sc}{\%}
    \ifcase\nr\relax
292
      \renewcommand*{\DTMenGBfmtordsuffix}[1]{##1}%
293
294
    \or
      \renewcommand*{\DTMenGBfmtordsuffix}[1]{%
295
296
       \DTMtexorpdfstring{\protect\textsuperscript{##1}}{##1}}%
297
    \or
      \renewcommand*{\DTMenGBfmtordsuffix}[1]{}%
298
299
    \or
300
      \renewcommand*{\DTMenGBfmtordsuffix}[1]{%
301
       \DTMtexorpdfstring{\protect\textsc{##1}}{##1}}%
```

```
302 \fi
303 }
    Define the en-GB style.
304 \DTMnewstyle
   {en-GB}% label
305
    {% date style
306
      \renewcommand*{\DTMenglishfmtordsuffix}{\DTMenGBfmtordsuffix}%
307
      \renewcommand*\DTMdisplaydate[4]{%
308
309
        \ifDTMshowdow
          \ifnum##4>-1
310
           \DTMifbool{en-GB}{abbr}%
311
            {\DTMenglishshortweekdayname{##4}}%
312
            {\DTMenglishweekdayname{##4}}%
313
           \DTMenGBdowdaysep
314
315
          \fi
316
        \fi
317
        \DTMifbool{en-GB}{showdayofmonth}%
318
          \DTMenglishordinal{##3}%
319
          \DTMenGBdaymonthsep
320
        }%
321
322
        {}%
        \DTMifbool{en-GB}{abbr}%
323
        {\DTMenglishshortmonthname{##2}}%
324
        {\DTMenglishmonthname{##2}}%
325
        \DTMifbool{en-GB}{showyear}%
326
327
          \DTMenGBmonthyearsep\number##1 % space intended
328
329
        }%
330
        {}%
      }%
331
      332
333 }%
    {% time style
334
      \renewcommand*\DTMenglishtimesep{\DTMenGBtimesep}%
335
      \DTMsettimestyle{englishampm}%
336
337
   }%
    {% zone style
338
      \DTMresetzones
339
      \DTMenGBzonemaps
340
      \renewcommand*{\DTMdisplayzone}[2]{%
341
342
        \DTMifbool{en-GB}{mapzone}%
343
        {\DTMusezonemapordefault{##1}{##2}}%
344
        {%
          \ifnum##1<0\else+\fi\DTMtwodigits{##1}%
345
          \ifDTMshowzoneminutes\DTMenGBtimesep\DTMtwodigits{##2}\fi
346
        }%
347
      }%
348
349 }%
```

```
{% full style
350
                  \renewcommand*{\DTMdisplay}[9]{%
351
                     \ifDTMshowdate
352
                       \DTMdisplaydate{##1}{##2}{##3}{##4}%
353
                       \DTMenGBdatetimesep
354
355
                     \fi
                     \DTMdisplaytime{##5}{##6}{##7}%
356
                     \ifDTMshowzone
357
                       \DTMenGBtimezonesep
358
                       \DTMdisplayzone{##8}{##9}%
359
                     \fi
360
                 }%
361
                  \renewcommand*{\DTMDisplay}{\DTMdisplay}%
362
          }%
363
           Define numeric style.
364 \DTMnewstyle
           {en-GB-numeric}% label
365
            {% date style
366
                     \renewcommand*\DTMdisplaydate[4]{%
367
                          \DTMifbool{en-GB}{showdayofmonth}%
368
369
                          {%
                                \number##3 % space intended
370
                                \DTMenGBdatesep
371
                          }%
372
373
                          {}%
                          \number##2 % space intended
374
                          \DTMifbool{en-GB}{showyear}%
375
376
377
                                \DTMenGBdatesep
378
                                \number##1 % space intended
                          }%
379
                          {}%
380
                    }%
381
                     382
383
            {% time style
384
                     \renewcommand*\DTMdisplaytime[3]{%
385
                           \number##1
386
                          \DTMenGBtimesep\DTMtwodigits{##2}%
387
                          \verb|\difDTMshowseconds|| DTMenGBtimesep|| DTMtwodigits{##3} \\ | fill | DTMshowseconds|| DTMshowseconds||
388
389
                    }%
390
           }%
391
            {% zone style
392
                  \DTMresetzones
                  \DTMenGBzonemaps
393
                  \renewcommand*{\DTMdisplayzone}[2]{%
394
                       \DTMifbool{en-GB}{mapzone}%
395
                       {\DTMusezonemapordefault{##1}{##2}}%
396
397
```

```
\ifDTMshowzoneminutes\DTMenGBtimesep\DTMtwodigits{##2}\fi
                  399
                          }%
                  400
                        }%
                  401
                      }%
                  402
                  403
                      {% full style
                  404
                        \renewcommand*{\DTMdisplay}[9]{%
                  405
                          \ifDTMshowdate
                          \DTMdisplaydate{##1}{##2}{##3}{##4}%
                  406
                          \DTMenGBdatetimesep
                  407
                          \fi
                  408
                          \DTMdisplaytime{##5}{##6}{##7}%
                  409
                  410
                          \ifDTMshowzone
                          \DTMenGBtimezonesep
                  411
                          \DTMdisplayzone{##8}{##9}%
                  412
                         \fi
                  413
                        }%
                  414
                        \renewcommand*{\DTMDisplay}{\DTMdisplay}%
                  415
                  416 }
                  The time zone mappings are set through this command, which can be redefined if
\DTMenGBzonemaps
                   extra mappings are required or mappings need to be removed.
                  417 \newcommand*{\DTMenGBzonemaps}{%
                       \DTMdefzonemap{00}{00}{GMT}%
                       \DTMdefzonemap{01}{00}{BST}%
                  419
                  420 }
                      Switch style according to the useregional setting.
                  421 \DTMifcaseregional
                  422 {}% do nothing
                  423 {\DTMsetstyle{en-GB}}%
                  424 {\DTMsetstyle{en-GB-numeric}}%
                      Redefine \dateenglish (or \date(dialect)) to prevent babel from resetting
                   \today. (For this to work, babel must already have been loaded if it's required.)
                  425 \ifcsundef{date\CurrentTrackedDialect}
                  426 {% do nothing
                       \ifundef\dateenglish
                  427
                       {%
                  428
                       }%
                  429
                       {%
                  430
                         \def\dateenglish{%
                  431
                  432
                           \DTMifcaseregional
                           {}% do nothing
                  433
                           {\DTMsetstyle{en-GB}}%
                  434
                           {\DTMsetstyle{en-GB-numeric}}%
                  435
                  436
                         }%
                       }%
                  437
                  438 }%
                  439 {%
```

\ifnum##1<0\else+\fi\DTMtwodigits{##1}%

398

```
\DTMifcaseregional
                     441
                             {}% do nothing
                     442
                             {\DTMsetstyle{en-GB}}%
                     443
                             {\DTMsetstyle{en-GB-numeric}}%
                     444
                     445
                          }%
                     446 }%
                      14.4
                              English (US) Code (datetime2-en-US.ldf)
                      This file contains the US English style.
                         Identify this module.
                     447 \ProvidesDateTimeModule{en-US}[2016/03/09 v1.04 (NLCT)]
                      Load base English module.
                     448 \RequireDateTimeModule{english-base}
                         Allow the user a way of configuring the en-US date format. This doesn't use
                      the package wide separators such as \dtm@datetimesep in case other date formats
                      are also required.
\DTMenUSmonthdaysep
                      The separator between the month and day for the text format.
                     449 \newcommand*{\DTMenUSmonthdaysep}{\space}
                      The separator between the day of week name and the month for the text format.
\DTMenUSdowmonthsep
                      (New to version 1.02.)
                     450 \newcommand*{\DTMenUSdowmonthsep}{\space}
                      The separator between the day and year for the text format.
 \DTMenUSdayyearsep
                     451 \newcommand*{\DTMenUSdayyearsep}{,\space}
\DTMenUSdatetimesep
                      The separator between the date and time blocks in the full format (either text or
                      numeric).
                     452 \newcommand*{\DTMenUSdatetimesep}{\space}
                      The separator between the time and zone blocks in the full format (either text or
\DTMenUStimezonesep
                      numeric).
                     453 \newcommand*{\DTMenUStimezonesep}{\space}
    \DTMenUSdatesep
                     The separator for the numeric date format.
                     454 \newcommand*{\DTMenUSdatesep}{/}
    \DTMenUStimesep
                     The separator for the numeric time format.
                     455 \newcommand*{\DTMenUStimesep}{:}
                         Provide keys that can be used in \DTMlangsetup to set these separators.
                     456 \texttt{\DTMdefkey{en-US}\{monthdaysep}{\{renewcommand*\{\texttt{\DTMenUSmonthdaysep}\}\{\#1\}\}}
                     457 \texttt{\DTMdefkey{en-US}{dowmonthsep}{{renewcommand*{\texttt{\DTMenUS}dowmonthsep}{\#1}}} \\
                     458 \DTMdefkey{en-US}{dayyearsep}{\renewcommand*{\DTMenUSdayyearsep}{#1}}
```

\csdef{date\CurrentTrackedDialect}{%

440

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

```
463 \DTMdefboolkey{en-US}{abbr}[true]{}
```

The default is the full name.

```
464 \DTMsetbool{en-US}{abbr}{false}
```

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

```
465 \DTMdefboolkey{en-US}{mapzone}[true]{}
```

The default is no mappings.

```
466 \DTMsetbool{en-US}{mapzone}{false}
```

Define a boolean key that determines whether to show or hide the day of the month. (Called showdayofmonth instead of showday to avoid confusion with the day of the week.)

```
467 \DTMdefboolkey{en-US}{showdayofmonth}[true]{}
```

The default is to show the day of the month.

```
468 \DTMsetbool{en-US}{showdayofmonth}{true}
```

Define a boolean key that determines whether to show or hide the year.

```
469 \DTMdefboolkey{en-US}{showyear}[true]{}
```

The default is to show the year.

```
470 \DTMsetbool{en-US}{showyear}{true}
```

\DTMenUSfmtordsuffix Define the ordinal suffix to be used by this style.

```
471 \end{*{\tt NTMenUSfmtordsuffix}[1]{}}
```

Define a setting to change the ordinal suffix style.

```
472 \DTMdefchoicekey{en-US}{ord}[\val\nr]{level,raise,omit,sc}{%
   \ifcase\nr\relax
473
      \renewcommand*{\DTMenUSfmtordsuffix}[1]{##1}%
475
      \renewcommand*{\DTMenUSfmtordsuffix}[1]{%
476
       \DTMtexorpdfstring{\protect\textsuperscript{##1}}{##1}}%
477
478
    \or
      \renewcommand*{\DTMenUSfmtordsuffix}[1]{}%
479
480
      \renewcommand*{\DTMenUSfmtordsuffix}[1]{%
481
       \DTMtexorpdfstring{\protect\textsc{##1}}{##1}}%
482
483
    \fi
484 }
```

Define a setting to change zone mappings.

```
485 \DTMdefchoicekey{en-US}{zone}[\val\nr]%
           {std,standard,dst,daylight,atlantic,eastern,central,mountain,%
             pacific, alaska, hawaii-aleutian, hawaii, aleutian, samoa, charmorro, clear}%
487
488 {%
489
           \ifcase\nr\relax
             % std
490
                \appto\DTMenUSzonemaps{\DTMenUSstdzonemaps}%
491
                \DTMenUSstdzonemaps
492
493
           \or
             % standard
494
                \appto\DTMenUSzonemaps{\DTMenUSstdzonemaps}%
495
                \DTMenUSstdzonemaps
496
497
           \or
498
             % dst
                \appto\DTMenUSzonemaps{\DTMenUSdstzonemaps}%
499
                \DTMenUSdstzonemaps
500
501
           \or
502
             % daylight
                 \appto\DTMenUSzonemaps{\DTMenUSdstzonemaps}%
503
                \DTMenUSdstzonemaps
504
           \or
505
             % atlantic
506
                \appto\DTMenUSzonemaps{\DTMenUSatlanticzonemaps}%
507
508
                \DTMenUSatlanticzonemaps
509
           \or
510
                \appto\DTMenUSzonemaps{\DTMenUSeasternzonemaps}%
511
                \DTMenUSeasternzonemaps
512
           \or
513
514
                \appto\DTMenUSzonemaps{\DTMenUScentralzonemaps}%
515
                 \DTMenUScentralzonemaps
516
517
             % mountain
518
                \verb|\DTMenUSzonemaps{\DTMenUSmountainzonemaps}|| % \DTMenUSmountainzonemaps | % \DTMenUSmountainzonemap
519
                \DTMenUSmountainzonemaps
520
521
522
                \appto\DTMenUSzonemaps{\DTMenUSpacificzonemaps}%
523
                \DTMenUSpacificzonemaps
524
           \or
525
             % alaska
526
                \appto\DTMenUSzonemaps{\DTMenUSalaskazonemaps}%
527
528
                \DTMenUSalaskazonemaps
529
             % hawaii-aleutian
530
                \appto\DTMenUSzonemaps{\DTMenUShawaiialeutianzonemaps}%
531
                \DTMenUShawaiialeutianzonemaps
532
```

```
533 \or
     % hawaii
534
      \appto\DTMenUSzonemaps{\DTMenUShawaiialeutianzonemaps}%
535
      \DTMenUShawaiialeutianzonemaps
536
537
    \or
538
     % aleutian
539
      \appto\DTMenUSzonemaps{\DTMenUShawaiialeutianzonemaps}%
      \DTMenUShawaiialeutianzonemaps
540
    \or
541
542
      \appto\DTMenUSzonemaps{\DTMenUSsamoazonemaps}%
543
      \DTMenUSsamoazonemaps
544
545
546
      \appto\DTMenUSzonemaps{\DTMenUSchamorrozonemaps}%
547
      \DTMenUSchamorrozonemaps
548
    \or
549
     % clear
550
551
      \renewcommand*{\DTMenUSzonemaps}{}%
552
      \DTMclearmap{-3}{0}%
      DTMclearmap{-4}{0}%
553
      \DTMclearmap{-5}{0}%
554
      \DTMclearmap{-6}{0}%
555
      \DTMclearmap{-7}{0}%
556
      \DTMclearmap{-8}{0}%
557
558
      \DTMclearmap{-9}{0}%
      DTMclearmap{-10}{0}%
559
      \DTMclearmap{-11}{0}%
560
      \DTMclearmap{10}{0}%
561
562 \fi
563 }
```

Define the en-US style. Hiding the day of month is a bit awkward as the default day-year separator has a comma that should disappear if the day number is missing so the month-day separator is used as the month-year separator if the day is missing.

```
564 \DTMnewstyle
    {en-US}% label
565
    {% date style
566
      \renewcommand*{\DTMenglishfmtordsuffix}{\DTMenUSfmtordsuffix}%
567
      \renewcommand*\DTMdisplaydate[4]{%
568
 Support for showdow added in v1.02 (thanks to Alan Munn).
        \ifDTMshowdow
569
          \ifnum##4>-1 % space intended
570
571
           \DTMifbool{en-US}{abbr}%
572
            {\DTMenglishshortweekdayname{##4}}%
            {\DTMenglishweekdayname{##4}}%
573
            \DTMenUSdowmonthsep
574
          \fi
575
```

```
576
        \fi
        \DTMifbool{en-US}{abbr}%
577
        {\DTMenglishshortmonthname{##2}}%
578
        {\DTMenglishmonthname{##2}}%
579
        \DTMifbool{en-US}{showdayofmonth}%
580
581
        {%
          \DTMenUSmonthdaysep
582
          \DTMenglishordinal{##3}%
583
          \DTMifbool{en-US}{showyear}%
584
          {%
585
            \DTMenUSdayyearsep
586
            \number##1 % space intended
587
          }%
588
          {}%
589
        }%
590
591
          \DTMifbool{en-US}{showyear}%
592
          {%
593
594
            \DTMenUSmonthdaysep
595
            \number##1 % space intended
          }%
596
          {}%
597
        }%
598
599
      600
601
602
    {% time style
      \renewcommand*\DTMenglishtimesep{\DTMenUStimesep}%
603
      \DTMsettimestyle{englishampm}%
604
605 }%
    {% zone style
606
607
      \DTMresetzones
608
      \DTMenUSzonemaps
      \renewcommand*{\DTMdisplayzone}[2]{%
609
610
        \DTMifbool{en-US}{mapzone}%
611
        {\DTMusezonemapordefault{##1}{##2}}%
612
          \ifnum##1<0\else+\fi\DTMtwodigits{##1}%
613
614
          \ifDTMshowzoneminutes\DTMenUStimesep\DTMtwodigits{##2}\fi
615
        }%
616
      }%
617 }%
    {% full style
618
      \renewcommand*{\DTMdisplay}[9]{%
619
620
       \ifDTMshowdate
        \DTMdisplaydate{##1}{##2}{##3}{##4}%
621
622
        \DTMenUSdatetimesep
623
       \DTMdisplaytime{##5}{##6}{##7}%
624
       \ifDTMshowzone
625
```

```
626
                       \DTMenUStimezonesep
                       \DTMdisplayzone{##8}{##9}%
627
                    \fi
628
                 }%
629
                  \renewcommand*{\DTMDisplay}{\DTMdisplay}%
630
631 }%
           Define numeric style.
632 \DTMnewstyle
            {en-US-numeric}% label
            {% date style
634
                     \renewcommand*\DTMdisplaydate[4]{%
635
                           \number##2 % space intended
636
                          \DTMifbool{en-US}{showdayofmonth}%
637
                          {%
638
                                 \DTMenUSdatesep
639
640
                                \number##3 % space intended
641
                          }%
642
                          {}%
                          \DTMifbool{en-US}{showyear}%
643
                          {%
644
                                \DTMenUSdatesep
645
646
                                \number##1 % space intended
                          }%
647
648
                          {}%
649
                     650
651 }%
652
            {% time style
653
                     \renewcommand*\DTMdisplaytime[3]{%
654
                          \DTMenUStimesep\DTMtwodigits{##2}%
655
                          \verb|\difDTMshowseconds|| DTMenUStimesep|| DTMtwodigits{##3} \\ | fill | DTMshowseconds|| DTMsho
656
                    }%
657
           }%
658
659
            {% zone style
                  \DTMresetzones
660
                  \DTMenUSzonemaps
661
                  \renewcommand*{\DTMdisplayzone}[2]{%
662
                       \DTMifbool{en-US}{mapzone}%
663
                       {\tt \{\DTMusezonemapordefault\{\#1\}\{\#2\}\}\%}
664
                       {%
665
666
                             \ifnum##1<0\else+\fi\DTMtwodigits{##1}%
667
                             \ifDTMshowzoneminutes\DTMenUStimesep\DTMtwodigits{##2}\fi
                       }%
668
                 }%
669
           }%
670
            {% full style
671
                 \renewcommand*{\DTMdisplay}[9]{%
672
                     \ifDTMshowdate
673
```

```
674
                                  \DTMdisplaydate{##1}{##2}{##3}{##4}%
                                  \DTMenUSdatetimesep
                        675
                                 \fi
                        676
                                 \DTMdisplaytime{##5}{##6}{##7}%
                        677
                                 \ifDTMshowzone
                        678
                        679
                                  \DTMenUStimezonesep
                        680
                                  \DTMdisplayzone{##8}{##9}%
                        681
                                 \fi
                        682
                               }%
                               \renewcommand*{\DTMDisplay}{\DTMdisplay}%
                        683
                            }
                        684
   \DTMenUSzonemaps
                         The time zone mappings are set through this command, which can be redefined if
                         extra mappings are required or mappings need to be removed. (These don't take
                         daylight saving into account.)
                        685 \newcommand*{\DTMenUSzonemaps}{%
                              \DTMdefzonemap{-3}{00}{ADT}%
                              \DTMdefzonemap{-4}{00}{AST}%
                        687
                        688
                              \DTMdefzonemap{-5}{00}{EST}%
                        689
                              \DTMdefzonemap{-6}{00}{CST}%
                              \label{local_def_def_def} $$ \operatorname{DTMdefzonemap}_{-7}_{00}{MST}_{\%} $$
                        690
                        691
                              \DTMdefzonemap{-8}{00}{PST}%
                        692 }
\DTMenUSstdzonemaps
                        Just the standard time zone mappings.
                        693 \newcommand*{\DTMenUSstdzonemaps}{%
                              \DTMdefzonemap{-4}{00}{AST}%
                        694
                        695
                              \DTMdefzonemap{-5}{00}{EST}%
                        696
                              \DTMdefzonemap{-6}{00}{CST}%
                              \DTMdefzonemap{-7}{00}{MST}%
                        697
                              \label{eq:decomp} $$ DTMdefzonemap{-8}{00}{PST}% $$
                        698
                              \label{local_problem} $$ DTMdefzonemap{-9}{00}{AKST}% $$
                        699
                        700
                              \DTMdefzonemap{-10}{00}{HAST}%
                        701
                              \DTMdefzonemap{-11}{00}{SST}%
                        702
                              \DTMdefzonemap{10}{00}{ChST}%
                        703 }
\DTMenUSdstzonemaps
                         Just daylight saving mappings.
                        704 \newcommand*{\DTMenUSdstzonemaps}{%
                              \label{local_def_def_def} $$ DTMdefzonemap{-3}{00}{ADT}% $$
                        705
                              \label{local_decomp} $$ DTMdefzonemap{-4}{00}{EDT}% $$
                        706
                        707
                              \DTMdefzonemap{-5}{00}{CDT}%
                        708
                              \DTMdefzonemap{-6}{00}{MDT}%
                              \label{eq:decomp} $$ DTMdefzonemap{-7}{00}{PDT}% $$
                        709
                              \DTMdefzonemap{-8}{00}{AKDT}%
                        710
                              \label{local_problem} $$ DTMdefzonemap{-9}{00}{HADT}% $$
                        711
                        712 }
```

```
713 \newcommand*{\DTMenUSatlanticzonemaps}{%
                                         \label{eq:decomp} $$ DTMdefzonemap{-4}{00}{AST}% $$
                                         \label{local_def_def_def} $$ DTMdefzonemap{-3}{00}{ADT}% $$
                                   715
                                   716 }
                                   Just the Eastern zone mappings (EST and EDT).
       \DTMenUSeasternzonemaps
                                   717 \newcommand*{\DTMenUSeasternzonemaps}{%
                                         \DTMdefzonemap{-5}{00}{EST}%
                                         \label{local_def_def_def} $$ \operatorname{DTMdefzonemap}_{-4}_{00}{EDT}_{\%} $$
                                   719
                                   720 }
       \DTMenUScentralzonemaps
                                   Just the Central zone mappings (CST and CDT).
                                   721 \newcommand*{\DTMenUScentralzonemaps}{%
                                         \DTMdefzonemap{-6}{00}{CST}%
                                         \label{local_def_cone} $$ DTMdefzonemap{-5}{00}{CDT}% $$
                                   723
                                   724 }
                                   Just the Mountain zone mappings (MST and MDT).
      \DTMenUSmountainzonemaps
                                   725 \newcommand*{\DTMenUSmountainzonemaps}{%
                                         \DTMdefzonemap{-7}{00}{MST}%
                                   727
                                         \DTMdefzonemap{-6}{00}{MDT}%
                                   728 }
                                    Just the Pacific zone mappings (PST and PDT).
       \DTMenUSpacificzonemaps
                                   729 \newcommand*{\DTMenUSpacificzonemaps}{%
                                         \DTMdefzonemap{-8}{00}{PST}%
                                   731
                                         \DTMdefzonemap{-7}{00}{PDT}%
                                   732 }
                                   Just the Alaska zone mappings (AKST and AKDT).
         \DTMenUSalaskazonemaps
                                   733 \newcommand*{\DTMenUSalaskazonemaps}{%
                                         \DTMdefzonemap{-9}{00}{AKST}%
                                   735
                                         \DTMdefzonemap{-8}{00}{AKDT}%
                                   736 }
                                    Just the Hawaii-Aleutian zone mappings (HAST and HADT).
\DTMenUShawaiialeutianzonemaps
                                   737 \newcommand*{\DTMenUShawaiialeutianzonemaps}{%
                                         \DTMdefzonemap{-10}{00}{HAST}%
                                         \DTMdefzonemap{-9}{00}{HADT}%
                                   739
                                   740 }
                                   Just the Samoa standard time (SST).
          \DTMenUSsamoazonemaps
                                   741 \newcommand*{\DTMenUSsamoazonemaps}{%
                                         \DTMdefzonemap{-11}{00}{SST}%
                                   743 }
                                   Just the Chamorro standard time (ChST).
      \DTMenUSchamorrozonemaps
                                   744 \newcommand*{\DTMenUSchamorrozonemaps}{%
                                   745
                                         \label{local_def_chst} $$ \DTMdefzonemap{10}{00}{ChST}% $$
                                   746 }
```

Switch style according to the useregional setting.

```
747 \DTMifcaseregional
748 {}% do nothing
749 {\DTMsetstyle{en-US}}%
750 {\DTMsetstyle{en-US-numeric}}%
    Redefine \dateenglish (or \date(dialect)) to prevent babel from resetting
 \today. (For this to work, babel must already have been loaded if it's required.)
751 \ifcsundef{date\CurrentTrackedDialect}
752 {% do nothing
     \ifundef\dateenglish
753
     {%
754
755
     }%
     {%
756
        \def\dateenglish{%
757
         \DTMifcaseregional
758
         {}% do nothing
759
760
         {\DTMsetstyle{en-US}}%
         {\DTMsetstyle{en-US-numeric}}%
761
       }%
762
763
     }%
764 }%
765 {%
     \csdef{date\CurrentTrackedDialect}{%
766
       \DTMifcaseregional
767
768
       {}% do nothing
       {\DTMsetstyle{en-US}}%
769
       {\DTMsetstyle{en-US-numeric}}%
770
    }%
771
772 }%
```

14.5 English (Canada) Code (datetime2-en-CA.ldf)

This file contains the Canadian English style. This is very similar to the US style.

Identify this module.

```
773 \ProvidesDateTimeModule{en-CA}[2016/03/09 v1.04 (NLCT)]
```

Load base English module.

```
774 \RequireDateTimeModule{english-base}
```

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

\DTMenCAmonthdaysep

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

775 \newcommand*{\DTMenCAmonthdaysep}{\space}

\DTMenCAdowmonthsep

The separator between the day of week name and the month for the text format. (New to version 1.02.)

776 \newcommand*{\DTMenCAdowmonthsep}{\space}

\DTMenCAdayyearsep The separator between the day and year for the text format.

777 \newcommand*{\DTMenCAdayyearsep}{,\space}

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

778 \newcommand*{\DTMenCAdatetimesep}{\space}

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

779 \newcommand*{\DTMenCAtimezonesep}{\space}

\DTMenCAdatesep The separator for the numeric date format.

780 \newcommand*{\DTMenCAdatesep}{/}

\DTMenCAtimesep The separator for the numeric time format.

781 \newcommand*{\DTMenCAtimesep}{:}

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

```
782 \DTMdefkey{en-CA}{monthdaysep}{\renewcommand*{\DTMenCAmonthdaysep}{#1}}
```

783 \DTMdefkey{en-CA}{dowmonthsep}{\renewcommand*{\DTMenCAdowmonthsep}{#1}}

784 \DTMdefkey{en-CA}{dayyearsep}{\renewcommand*{\DTMenCAdayyearsep}{#1}}

785 \DTMdefkey{en-CA}{datetimesep}{\renewcommand*{\DTMenCAdatetimesep}{\#1}}

786 \DTMdefkey{en-CA}{timezonesep}{\renewcommand*{\DTMenCAtimezonesep}{#1}}

787 \DTMdefkey{en-CA}{datesep}{\renewcommand*{\DTMenCAdatesep}{#1}}

788 \DTMdefkey{en-CA}{timesep}{\renewcommand*{\DTMenCAtimesep}{#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.

789 \DTMdefboolkey{en-CA}{abbr}[true]{}

The default is the full name.

790 \DTMsetbool{en-CA}{abbr}{false}

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

791 \DTMdefboolkey{en-CA}{mapzone}[true]{}

The default is no mappings.

 $792 \texttt{\DTMsetbool\{en-CA\}\{mapzone\}\{false\}}$

Define a boolean key that determines whether to show or hide the day of the month. (Called showdayofmonth instead of showday to avoid confusion with the day of the week.)

793 \DTMdefboolkey{en-CA}{showdayofmonth}[true]{}

The default is to show the day of the month.

794 \DTMsetbool{en-CA}{showdayofmonth}{true}

Define a boolean key that determines whether to show or hide the year.

795 \DTMdefboolkey{en-CA}{showyear}[true]{}

```
\DTMenCAfmtordsuffix Define the ordinal suffix to be used by this style.
                      797 \newcommand*{\DTMenCAfmtordsuffix}[1]{}
                          Define a setting to change the ordinal suffix style.
                      798 \DTMdefchoicekey{en-CA}{ord}[\val\nr]{level,raise,omit,sc}{\%}
                          \ifcase\nr\relax
                      799
                            \renewcommand*{\DTMenCAfmtordsuffix}[1]{##1}%
                      800
                      801
                          \or
                      802
                            \renewcommand*{\DTMenCAfmtordsuffix}[1]{%
                      803
                              \DTMtexorpdfstring{\protect\textsuperscript{##1}}{##1}}%
                      804
                          \or
                            \renewcommand*{\DTMenCAfmtordsuffix}[1]{}%
                      805
                          \or
                      806
                             \renewcommand*{\DTMenCAfmtordsuffix}[1]{%
                      807
                              \DTMtexorpdfstring{\protect\textsc{##1}}{##1}}%
                      808
                      809
                          \fi
                      810 }
                          Define a setting to change zone mappings.
                      811 \DTMdefchoicekey{en-CA}{zone}[\val\nr]%
                          {std,standard,dst,daylight,newfoundland,atlantic,eastern,central,mountain,%
                           pacific,clear}%
                      813
                      814 {%
                          \ifcase\nr\relax
                      815
                           % std
                      816
                            \appto\DTMenCAzonemaps{\DTMenCAstdzonemaps}%
                      817
                      818
                            \DTMenCAstdzonemaps
                      819
                          \or
                           % standard
                      820
                            \appto\DTMenCAzonemaps{\DTMenCAstdzonemaps}%
                      821
                            \DTMenCAstdzonemaps
                      822
                          \or
                      823
                      824
                           % dst
                            \appto\DTMenCAzonemaps{\DTMenCAdstzonemaps}%
                      825
                            \DTMenCAdstzonemaps
                      826
                      827
                          \or
                           % daylight
                      828
                            \appto\DTMenCAzonemaps{\DTMenCAdstzonemaps}%
                      829
                            \DTMenCAdstzonemaps
                      830
                      831
                          \or
                           % newfoundland
                      832
                            \appto\DTMenCAzonemaps{\DTMenCAnewfoundlandzonemaps}%
                      833
                            \DTMenCAnewfoundlandzonemaps
                      834
                          \or
                      835
                           % atlantic
                      836
                      837
                            \appto\DTMenCAzonemaps{\DTMenCAatlanticzonemaps}%
```

The default is to show the year.
796 \DTMsetbool{en-CA}{showyear}{true}

838

\DTMenCAatlanticzonemaps

```
839
    \or
     % eastern
840
      \appto\DTMenCAzonemaps{\DTMenCAeasternzonemaps}%
841
      \DTMenCAeasternzonemaps
842
843
    \or
844
     % central
845
      \appto\DTMenCAzonemaps{\DTMenCAcentralzonemaps}%
      \DTMenCAcentralzonemaps
846
847
    \or
     % mountain
848
      \appto\DTMenCAzonemaps{\DTMenCAmountainzonemaps}%
849
      \DTMenCAmountainzonemaps
850
851
     % pacific
852
      \appto\DTMenCAzonemaps{\DTMenCApacificzonemaps}%
853
      \DTMenCApacificzonemaps
854
855
    \or
     % clear
856
857
      \renewcommand*{\DTMenCAzonemaps}{}%
858
      DTMclearmap{-2}{30}%
      \DTMclearmap{-3}{30}%
859
860
      \DTMclearmap{-3}{0}%
      \label{local_problem} $$ DTMclearmap{-4}{0}% $$
861
      \DTMclearmap{-5}{0}%
862
      \DTMclearmap{-6}{0}%
863
864
      \DTMclearmap{-7}{0}%
      \DTMclearmap{-8}{0}%
865
866 \fi
867 }
    Define the en-CA style (similar to en-US).
868 \ \DTMnewstyle
    {en-CA}% label
869
    {% date style
870
      \renewcommand*{\DTMenglishfmtordsuffix}{\DTMenCAfmtordsuffix}%
871
      \renewcommand*\DTMdisplaydate[4]{%
872
 Support for showdow added in v1.02 (thanks to Alan Munn).
873
        \ifDTMshowdow
           \ifnum##4>-1 % space intended
874
            \DTMifbool{en-CA}{abbr}%
875
             {\DTMenglishshortweekdayname{##4}}%
876
             {\DTMenglishweekdayname{##4}}%
877
             \DTMenCAdowmonthsep
878
879
           \fi
880
881
        \DTMifbool{en-CA}{abbr}%
882
        {\DTMenglishshortmonthname{##2}}%
        {\DTMenglishmonthname{##2}}%
883
884
        \DTMifbool{en-CA}{showdayofmonth}%
885
        {%
```

```
886
          \DTMenCAmonthdaysep
          \DTMenglishordinal{##3}%
887
          \DTMifbool{en-CA}{showyear}%
888
          {%
889
            \DTMenCAdayyearsep
890
            \number##1 % intended
891
          }%
892
          {}%
893
        }%
894
        {%
895
          \DTMifbool{en-CA}{showyear}%
896
897
          {%
            \DTMenCAmonthdaysep
898
            \number##1 % intended
899
          }%
900
          {}%
901
        }%
902
903
      904
905 }%
    {% time style
906
      \renewcommand*\DTMenglishtimesep{\DTMenCAtimesep}%
907
      \DTMsettimestyle{englishampm}%
908
   }%
909
    {% zone style
910
911
      \DTMresetzones
      \DTMenCAzonemaps
912
      \renewcommand*{\DTMdisplayzone}[2]{%
913
        \DTMifbool{en-CA}{mapzone}%
914
        {\DTMusezonemapordefault{##1}{##2}}%
915
        {%
916
917
          \ifnum##1<0\else+\fi\DTMtwodigits{##1}%
918
          \ifDTMshowzoneminutes\DTMenCAtimesep\DTMtwodigits{##2}\fi
        }%
919
920
      }%
   }%
921
    {% full style
922
      \renewcommand*{\DTMdisplay}[9]{%
923
924
       \ifDTMshowdate
925
        \DTMdisplaydate{##1}{##2}{##3}{##4}%
926
        \DTMenCAdatetimesep
927
       \DTMdisplaytime{##5}{##6}{##7}%
928
       \ifDTMshowzone
929
930
        \DTMenCAtimezonesep
931
        \DTMdisplayzone{##8}{##9}%
932
       \fi
      }%
933
934
      \renewcommand*{\DTMDisplay}{\DTMdisplay}%
935 }%
```

Define numeric style.

```
936 \DTMnewstyle
    {en-CA-numeric}% label
937
    {% date style
938
939
       \renewcommand*\DTMdisplaydate[4]{%
940
          \number##2 % space intended
          \DTMifbool{en-CA}{showdayofmonth}%
941
942
         {%
            \DTMenCAdatesep
943
            \number##3 % space intended
944
945
946
         \DTMifbool{en-CA}{showyear}%
947
948
         {%
949
            \DTMenCAdatesep
            \number##1 % space intended
950
         }%
951
952
         {}%
       }%
953
       \renewcommand*{\DTMDisplaydate}[4]{\DTMdisplaydate{##1}{##2}{##3}{##4}}%
954
    }%
955
    {% time style
956
       \renewcommand*\DTMdisplaytime[3]{%
957
          \number##1
958
         \DTMenCAtimesep\DTMtwodigits{##2}%
959
960
         \ifDTMshowseconds\DTMenCAtimesep\DTMtwodigits{##3}\fi
       }%
961
962
    }%
    {% zone style
963
      \DTMresetzones
964
965
      \DTMenCAzonemaps
      \renewcommand*{\DTMdisplayzone}[2]{%
966
        \DTMifbool{en-CA}{mapzone}%
967
        {\DTMusezonemapordefault{##1}{##2}}%
968
969
           \ifnum##1<0\else+\fi\DTMtwodigits{##1}%
970
           \ifDTMshowzoneminutes\DTMenCAtimesep\DTMtwodigits{##2}\fi
971
        }%
972
973
      }%
974 }%
    {% full style
975
      \renewcommand*{\DTMdisplay}[9]{%
976
       \ifDTMshowdate
977
        \DTMdisplaydate{##1}{##2}{##3}{##4}%
978
        \DTMenCAdatetimesep
979
980
       \DTMdisplaytime{##5}{##6}{##7}%
981
       \ifDTMshowzone
982
        \DTMenCAtimezonesep
983
```

```
\DTMdisplayzone{##8}{##9}%
                                    984
                                             \fi
                                    985
                                            }%
                                    986
                                            \renewcommand*{\DTMDisplay}{\DTMdisplay}%
                                    987
                                         }
                                    988
               \DTMenCAzonemaps
                                     The time zone mappings are set through this command, which can be redefined if
                                     extra mappings are required or mappings need to be removed. (These don't take
                                     daylight saving into account, except for NDT.)
                                    989 \newcommand*{\DTMenCAzonemaps}{%
                                    990
                                           \label{local_def_def_2} $$ DTMdefzonemap{-2}{30}{NDT}% $$
                                           \label{local_decomp} $$ DTMdefzonemap{-3}{30}{NST}% $$
                                    991
                                           \DTMdefzonemap{-4}{00}{AST}%
                                    992
                                    993
                                           \DTMdefzonemap{-5}{00}{EST}%
                                    994
                                           \DTMdefzonemap{-6}{00}{CST}%
                                           \DTMdefzonemap{-7}{00}{MST}%
                                    995
                                    996
                                           \DTMdefzonemap{-8}{00}{PST}%
                                    997 }
           \DTMenCAstdzonemaps
                                     Just the standard time zone mappings.
                                    998 \newcommand*{\DTMenCAstdzonemaps}{%
                                           \label{local_decomp} $$ DTMdefzonemap{-3}{30}{NST}% $$
                                    999
                                           \DTMdefzonemap{-4}{00}{AST}%
                                   1000
                                           \label{local_def_def_def} $$ DTMdefzonemap{-5}{00}{EST}% $$
                                   1001
                                   1002
                                           \DTMdefzonemap{-6}{00}{CST}%
                                   1003
                                           \label{eq:decomp} $$ DTMdefzonemap{-7}{00}{MST}% $$
                                           \label{eq:decomp} $$ DTMdefzonemap{-8}{00}{PST}% $$
                                   1004
                                   1005 }
           \DTMenCAdstzonemaps
                                   Just daylight saving mappings.
                                   1006 \newcommand*{\DTMenCAdstzonemaps}{%
                                           \label{local_def_def_def} $$ DTMdefzonemap{-2}{30}{NDT}% $$
                                   1007
                                           \label{local_def} $$ DTMdefzonemap{-3}{00}{ADT}% $$
                                   1008
                                           \label{local_decomp} $$ DTMdefzonemap{-4}{00}{EDT}% $$
                                   1009
                                           \label{local_decomp} $$ DTMdefzonemap{-5}{00}{CDT}% $$
                                   1010
                                           \DTMdefzonemap{-6}{00}{MDT}%
                                   1011
                                   1012
                                           \DTMdefzonemap{-7}{00}{PDT}%
                                   1013 }
\DTMenCAnewfoundlandzonemaps
                                    Just the Newfoundland zone mappings (NST and NDT).
                                   1014 \newcommand*{\DTMenCAnewfoundlandzonemaps}{\%
                                           \DTMdefzonemap{-3}{30}{NST}%
                                   1016
                                           \DTMdefzonemap{-2}{30}{NDT}%
                                   1017 }
                                     Just the Atlantic zone mappings (AST and ADT).
     \DTMenCAatlanticzonemaps
                                   1018 \newcommand*{\DTMenCAatlanticzonemaps}{%
                                           \label{local_def} $$ DTMdefzonemap{-4}{00}{AST}% $$
                                   1020
                                           \label{local_decomp} $$ DTMdefzonemap{-3}{00}{ADT}% $$
                                   1021 }
```

```
\DTMenCAeasternzonemaps Just the Eastern zone mappings (EST and EDT).
                           1022 \newcommand*{\DTMenCAeasternzonemaps}{%
                                 \DTMdefzonemap{-5}{00}{EST}%
                                 \label{eq:decomp} $$ DTMdefzonemap{-4}{00}{EDT}% $$
                           1024
                          1025 }
                           Just the Central zone mappings (CST and CDT).
 \DTMenCAcentralzonemaps
                           1026 \newcommand*{\DTMenCAcentralzonemaps}{%
                                 \label{local_decomp} $$ DTMdefzonemap{-6}{00}{CST}% $$
                           1028
                                 \label{local_def_cone} $$ DTMdefzonemap{-5}{00}{CDT}% $$
                           1029 }
                           Just the Mountain zone mappings (MST and MDT).
\DTMenCAmountainzonemaps
                           1030 \newcommand*{\DTMenCAmountainzonemaps}{%
                                 \DTMdefzonemap{-7}{00}{MST}%
                           1032
                                 \DTMdefzonemap{-6}{00}{MDT}%
                           1033 }
                            Just the Pacific zone mappings (PST and PDT).
 \DTMenCApacificzonemaps
                           1034 \newcommand*{\DTMenCApacificzonemaps}{%
                                 \DTMdefzonemap{-8}{00}{PST}%
                           1035
                                 \DTMdefzonemap{-7}{00}{PDT}%
                           1036
                          1037 }
                                Switch style according to the useregional setting.
                           1038 \DTMifcaseregional
                           1039 {}% do nothing
                           1040 {\DTMsetstyle{en-CA}}%
                           1041 {\DTMsetstyle{en-CA-numeric}}%
                                Redefine \dateenglish (or \date(dialect)) to prevent babel from resetting
                            \today. (For this to work, babel must already have been loaded if it's required.)
                           1042 \ifcsundef{date\CurrentTrackedDialect}
                           1043 {% do nothing
                                 \ifundef\dateenglish
                           1044
                                 {%
                           1045
                                 }%
                           1046
                                 {%
                           1047
                           1048
                                    \def\dateenglish{%
                                     \DTMifcaseregional
                           1049
                          1050
                                     {}% do nothing
                                     {\DTMsetstyle{en-CA}}%
                           1051
                                     {\DTMsetstyle{en-CA-numeric}}%
                          1052
                                   }%
                           1053
                                 }%
                           1054
                           1055 }%
                           1056 {%
                                 \csdef{date\CurrentTrackedDialect}{%
                           1057
                                    \DTMifcaseregional
                           1058
```

```
{}% do nothing
1059
        {\DTMsetstyle{en-CA}}%
1060
1061
        {\DTMsetstyle{en-CA-numeric}}%
     }%
1062
1063 }%
```

14.6 English (Australia) Code (datetime2-en-AU.ldf)

This file contains the Australian English style.

Identify this module.

1064 \ProvidesDateTimeModule{en-AU}[2016/03/09 v1.04 (NLCT)]

Load base English module.

1065 \RequireDateTimeModule{english-base}

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

\DTMenAUdowdaysep

The separator between the day of week name and the day of month number for the text format.

1066 \newcommand*{\DTMenAUdowdaysep}{\space}

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

1067 \newcommand*{\DTMenAUdaymonthsep}{\space}

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

1068 \newcommand*{\DTMenAUmonthyearsep}{\space}

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

1069 \newcommand*{\DTMenAUdatetimesep}{\space}

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

1070 \newcommand*{\DTMenAUtimezonesep}{\space}

The separator for the numeric date format. \DTMenAUdatesep

1071 \newcommand*{\DTMenAUdatesep}{/}

\DTMenAUtimesep The separator for the numeric time format.

1072 \newcommand*{\DTMenAUtimesep}{:}

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

```
1073 \DTMdefkey{en-AU}{dowdaysep}{\renewcommand*{\DTMenAUdowdaysep}{#1}}
```

^{1074 \}DTMdefkey{en-AU}{daymonthsep}{\renewcommand*{\DTMenAUdaymonthsep}{#1}}

 $^{1075 \}DTMdefkey{en-AU}{monthyearsep}{{renewcommand*{}DTMenAUmonthyearsep}{{#1}}}$

^{1077 \}DTMdefkey{en-AU}{timezonesep}{\renewcommand*{\DTMenAUtimezonesep}{#1}}

 $^{1078 \}DTMdefkey{en-AU}{datesep}{\renewcommand*{\DTMenAUdatesep}{\#1}}$

 $^{1079 \}DTMdefkey{en-AU}{timesep}{\renewcommand*{\DTMenAUtimesep}{\#1}}$

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

```
1080 \DTMdefboolkey{en-AU}{abbr}[true]{}
```

The default is the full name.

```
1081 \DTMsetbool{en-AU}{abbr}{false}
```

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

```
1082 \DTMdefboolkey{en-AU}{mapzone}[true]{}
```

The default is no mappings.

```
1083 \DTMsetbool{en-AU}{mapzone}{false}
```

Define a boolean key that determines whether to show or hide the day of the month. (Called showdayofmonth instead of showday to avoid confusion with the day of the week.)

```
1084 \DTMdefboolkey{en-AU}{showdayofmonth}[true]{}
```

The default is to show the day of the month.

```
1085 \DTMsetbool{en-AU}{showdayofmonth}{true}
```

Define a boolean key that determines whether to show or hide the year.

```
1086 \DTMdefboolkey{en-AU}{showyear}[true]{}
```

The default is to show the year.

```
1087 \DTMsetbool{en-AU}{showyear}{true}
```

\DTMenAUfmtordsuffix Define the ordinal suffix to be used by this style.

```
1088 \newcommand*{\DTMenAUfmtordsuffix}[1]{}
```

Define a setting to change the ordinal suffix style.

```
1089 \DTMdefchoicekey{en-AU}{ord}[\val\nr]{level,raise,omit,sc}{\%}
1090 \ifcase\nr\relax
      1091
1092 \or
1093
       \renewcommand*{\DTMenAUfmtordsuffix}[1]{%
1094
        \DTMtexorpdfstring{\protect\textsuperscript{##1}}{##1}}%
    \or
1095
      \renewcommand*{\DTMenAUfmtordsuffix}[1]{}%
1096
1097
     \or
      \renewcommand*{\DTMenAUfmtordsuffix}[1]{%
1098
1099
        \DTMtexorpdfstring{\protect\textsc{##1}}{##1}}%
1100 \fi
1101 }
    Define a setting to change zone mappings.
1102 \DTMdefchoicekey{en-AU}{zone}[\val\nr]%
1103 {std, standard, dst, daylight, central, central-western, western%
     eastern, christmas, lord-howe, cocos, keeling, clear}%
1104
1105 {%
1106 \ifcase\nr\relax
```

```
1107
       1108
       \DTMenAUstdzonemaps
1109
1110 \or
      % standard
1111
1112
       \appto\DTMenAUzonemaps{\DTMenAUstdzonemaps}%
1113
       \DTMenAUstdzonemaps
1114 \or
      % dst
1115
       \appto\DTMenAUzonemaps{\DTMenAUdstzonemaps}%
1116
       \DTMenAUdstzonemaps
1117
1118
     \or
1119
      % daylight
       \appto\DTMenAUzonemaps{\DTMenAUdstzonemaps}%
1120
       \DTMenAUdstzonemaps
1121
1122 \or
      % central
1123
       \appto\DTMenAUzonemaps{\DTMenAUcentralzonemaps}%
1124
1125
       \DTMenAUcentralzonemaps
1126 \or
      % central-western
1127
       \appto\DTMenAUzonemaps{\DTMenAUcentralwesternzonemaps}%
1128
       \verb|\DTMenAUcentralwesternzonemaps| \\
1129
1130 \or
1131
      % western
       \appto\DTMenAUzonemaps{\DTMenAUwesternzonemaps}%
1132
1133
       \DTMenAUwesternzonemaps
1134 \or
      % eastern
1135
       \appto\DTMenAUzonemaps{\DTMenAUeasternzonemaps}%
1136
       \DTMenAUeasternzonemaps
1137
1138 \or
1139
       \appto\DTMenAUzonemaps{\DTMenAUchristmaszonemaps}%
1140
1141
       \DTMenAUchristmaszonemaps
1142
     \or
      % lord-howe
1143
       \appto\DTMenAUzonemaps{\DTMenAUlordhowezonemaps}%
1144
1145
       \DTMenAUlordhowezonemaps
1146
1147
      % norfolk
       \appto\DTMenAUzonemaps{\DTMenAUnorfolkzonemaps}%
1148
       \DTMenAUnorfolkzonemaps
1149
1150 \or
1151
      % cocos
1152
       \appto\DTMenAUzonemaps{\DTMenAUcocoszonemaps}%
1153
       \DTMenAUcocoszonemaps
1154 \or
1155
      % keeling
       \appto\DTMenAUzonemaps{\DTMenAUcocoszonemaps}%
1156
```

```
\DTMenAUcocoszonemaps
1157
1158 \or
      % clear
1159
       \renewcommand*{\DTMenAUzonemaps}{}%
1160
       \DTMclearmap{6}{30}%
1161
1162
       \DTMclearmap{7}{00}%
1163
       \DTMclearmap{8}{00}%
       \DTMclearmap{8}{45}%
1164
       \DTMclearmap{9}{00}%
1165
       \label{lem:decomp} $$ DTMclearmap{9}{30}% $$
1166
       \DTMclearmap{10}{00}%
1167
1168
       \DTMclearmap{10}{30}%
1169
       \DTMclearmap{11}{00}%
1170 \fi
1171 }
 Define the en-AU style.
1172 \DTMnewstyle
1173 \{en-AU\}\% label
1174
    {% date style
       \verb|\command*{\DTMenglishfmtordsuffix}{\DTMenAUfmtordsuffix}|,
1175
       \renewcommand*\DTMdisplaydate[4]{%
1176
1177
         \ifDTMshowdow
           \ifnum##4>-1%
1178
            \DTMifbool{en-AU}{abbr}%
1179
             {\DTMenglishshortweekdayname{##4}}%
1180
             {\DTMenglishweekdayname{##4}}%
1181
            \verb|\DTMenAUdowdaysep||
1182
1183
           \fi
1184
         \fi
1185
         \DTMifbool{en-AU}{showdayofmonth}%
1186
         {%
           \DTMenglishordinal{##3}%
1187
           \DTMenAUdaymonthsep
1188
         }%
1189
1190
         {}%
         \DTMifbool{en-AU}{abbr}%
1191
         {\DTMenglishshortmonthname{##2}}%
1192
         {\DTMenglishmonthname{##2}}%
1193
         \DTMifbool{en-AU}{showyear}%
1194
1195
         {%
           \DTMenAUmonthyearsep\number##1 % space intended
1196
         }%
1197
1198
         {}%
       }%
1199
       1200
    }%
1201
     {% time style
1202
       \renewcommand*\DTMenglishtimesep{\DTMenAUtimesep}%
1203
       \DTMsettimestyle{englishampm}%
1204
```

```
1205 }%
             {% zone style
1206
                    \DTMresetzones
1207
                    \DTMenAUzonemaps
1208
                    \renewcommand*{\DTMdisplayzone}[2]{%
1209
1210
                          \DTMifbool{en-AU}{mapzone}%
1211
                          {\DTMusezonemapordefault{##1}{##2}}%
1212
                                \ifnum##1<0\else+\fi\DTMtwodigits{##1}%
1213
                               \verb|\difDTMshowzoneminutes|| DTMenAUtimesep|| DTMtwodigits{##2} \\ | final temperature of the continuous of the continuou
1214
                         }%
1215
                   }%
1216
1217
             }%
              {% full style
1218
                    \renewcommand*{\DTMdisplay}[9]{%
1219
                       \ifDTMshowdate
1220
                          \DTMdisplaydate{##1}{##2}{##3}{##4}%
1221
                         \DTMenAUdatetimesep
1222
1223
1224
                       \DTMdisplaytime{##5}{##6}{##7}%
                       \ifDTMshowzone
1225
1226
                          \DTMenAUtimezonesep
                         \DTMdisplayzone{##8}{##9}%
1227
                       \fi
1228
                   }%
1229
                    \renewcommand*{\DTMDisplay}{\DTMdisplay}%
1230
1231 }%
              Define numeric style.
1232 \DTMnewstyle
1233
             {en-AU-numeric}% label
1234
              {% date style
1235
                       \renewcommand*\DTMdisplaydate[4]{%
                            \DTMifbool{en-AU}{showdayofmonth}%
1236
1237
                            \number##3 % space intended
1238
1239
                            \DTMenAUdatesep
                            }%
1240
                            {}%
1241
                            \number##2 % space intended
1242
                            \label{lem-AU} $$ \DTMifbool{en-AU}{showyear}% $$
1243
                            {%
1244
1245
                                  \DTMenAUdatesep
1246
                                  \number##1 % space intended
                            }%
1247
                            {}%
1248
1249
                       1250
1251
              }%
1252 {% time style
```

```
\renewcommand*\DTMdisplaytime[3]{%
1253
           \number##1
1254
           \DTMenAUtimesep\DTMtwodigits{##2}%
1255
          \ifDTMshowseconds\DTMenAUtimesep\DTMtwodigits{##3}\fi
1256
1257
        }%
1258 }%
1259
     {% zone style
1260
       \DTMresetzones
       \DTMenAUzonemaps
1261
       \renewcommand*{\DTMdisplayzone}[2]{%
1262
         \DTMifbool{en-AU}{mapzone}%
1263
1264
         {\DTMusezonemapordefault{##1}{##2}}%
1265
            \ifnum##1<0\else+\fi\DTMtwodigits{##1}%
1266
            \ifDTMshowzoneminutes\DTMenAUtimesep\DTMtwodigits{##2}\fi
1267
         }%
1268
       }%
1269
1270 }%
1271
     {% full style
1272
       \renewcommand*{\DTMdisplay}[9]{%
1273
        \ifDTMshowdate
         \DTMdisplaydate{##1}{##2}{##3}{##4}%
1274
         \DTMenAUdatetimesep
1275
        \fi
1276
        \DTMdisplaytime{##5}{##6}{##7}%
1277
1278
        \ifDTMshowzone
         \DTMenAUtimezonesep
1279
         \DTMdisplayzone{##8}{##9}%
1280
        \fi
1281
       }%
1282
       \renewcommand*{\DTMDisplay}{\DTMdisplay}%
1283
1284
    }
```

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

```
1285 \newcommand*{\DTMenAUzonemaps}{%
1286
      \DTMdefzonemap{10}{30}{ACDT}% Australian Central Daylight Time
      \DTMdefzonemap{11}{00}{AEDT}% Australian Eastern Daylight Time
1287
      \DTMdefzonemap{9}{30}{ACST}% Australian Central Standard Time
1288
      \DTMdefzonemap{8}{45}{ACWST}% Australian Central Western Standard Time
1289
      \DTMdefzonemap{9}{00}{ACWDT}% Australian Central Western Daylight Time
1290
      \DTMdefzonemap{10}{00}{AEDT}% Australian Eastern Standard Time
1291
1292
      \DTMdefzonemap{8}{00}{AWDT}% Australian Western Standard Time
      \DTMdefzonemap{7}{00}{CXT}% Christmas Island Time
1293
1294
      \DTMdefzonemap{11}{30}{NFT}% Norfolk Island Time
1295 }
```

Just the standard time zone mappings. \DTMenAUstdzonemaps

```
1296 \newcommand*{\DTMenAUstdzonemaps}{%
      \DTMdefzonemap{6}{30}{CCT}%
```

```
\DTMdefzonemap{7}{00}{CXT}%
                                1298
                                       \DTMdefzonemap{9}{30}{ACST}%
                                1299
                                       \label{local-problem} $$ DTMdefzonemap{8}{00}{AWST}% $$
                                1300
                                      \DTMdefzonemap{8}{45}{ACWST}%
                                1301
                                      \DTMdefzonemap{10}{00}{AEST}%
                                1302
                                1303
                                      \DTMdefzonemap{10}{30}{LHST}%
                                1304
                                      \DTMdefzonemap{11}{00}{NFT}%
                                1305 }
           \DTMenAUdstzonemaps
                                Just daylight saving mappings. (Conflicts omitted.)
                                1306 \newcommand*{\DTMenAUdstzonemaps}{%
                                1307
                                      \DTMdefzonemap{9}{00}{AWDT}%
                                      \DTMdefzonemap{10}{30}{ACDT}%
                                1308
                                1309
                                      \DTMdefzonemap{11}{00}{AEDT}%
                                1310 }
                                 Just the Australian Central zone mappings (ACST and ACDT).
       \DTMenAUcentralzonemaps
                                1311 \newcommand*{\DTMenAUcentralzonemaps}{%
                                1312
                                      \DTMdefzonemap{9}{30}{ACST}%
                                1313
                                      \DTMdefzonemap{10}{30}{ACDT}%
                                1314 }
\DTMenAUcentralwesternzonemaps Just the Australian Central Western zone mapping (ACWST).
                                1315 \newcommand*{\DTMenAUcentralwesternzonemaps}{%
                                1316
                                      \DTMdefzonemap{8}{45}{ACWST}%
                                1317 }
                                Just the Australian Western zone mappings (AWST and AWDT).
       \DTMenAUwesternzonemaps
                                1318 \newcommand*{\DTMenAUwesternzonemaps}{%
                                      \DTMdefzonemap{8}{00}{AWST}%
                                      \DTMdefzonemap{9}{00}{AWDT}%
                                1320
                                1321 }
       \DTMenAUeasternzonemaps
                                 Just the Australian Eastern zone mappings (AEST and AEDT).
                                1322 \newcommand*{\DTMenAUeasternzonemaps}{%
                                      \DTMdefzonemap{10}{00}{AEST}%
                                1324
                                      \DTMdefzonemap{11}{00}{AEDT}%
                                1325 }
                                Just the Christmas Island zone mapping (CXT).
      \DTMenAUchrismaszonemaps
                                1326 \newcommand*{\DTMenAUchristmaszonemaps}{%
                                1327
                                      \DTMdefzonemap{7}{00}{CXT}%
                                1328 }
                                 Just the Lord Howe Island zone mappings (LHST and LHDT).
      \DTMenAUlordhowezonemaps
                                1329 \newcommand*{\DTMenAUlordhowezonemaps}{%
                                      \DTMdefzonemap{10}{30}{LHST}%
                                1330
                                1331
                                      \label{local_def_def_def} $$ DTMdefzonemap{11}{00}{LHDT}% $$
                                1332 }
```

```
\DTMenAUnorfolkzonemaps Just the Norfolk Island zone mapping (NFT).
                        1333 \newcommand*{\DTMenAUnorfolkzonemaps}{%
                               \DTMdefzonemap{11}{00}{NFT}%
                        1334
                         1335 }
  \DTMenAUcocoszonemaps Just the Cocos (Keeling) Island zone mapping (CCT).
                         1336 \newcommand*{\DTMenAUcocoszonemaps}{%
                               \DTMdefzonemap{6}{30}{CCT}%
                        1338 }
                              Switch style according to the useregional setting.
                         1339 \DTMifcaseregional
                         1340 {}% do nothing
                        1341 {\DTMsetstyle{en-AU}}%
                         1342 {\DTMsetstyle{en-AU-numeric}}%
                              Redefine \dateenglish (or \date(dialect)) to prevent babel from resetting
                          \today. (For this to work, babel must already have been loaded if it's required.)
                         1343 \ifcsundef{date\CurrentTrackedDialect}
                         1344 {% do nothing
                        1345
                               \ifundef\dateenglish
                         1346
                               {%
                         1347
                               }%
                               {%
                        1348
                                 \def\dateenglish{%
                        1349
                                   \DTMifcaseregional
                         1350
                        1351
                                   {}% do nothing
                                   {\DTMsetstyle{en-AU}}%
                         1352
                         1353
                                   {\DTMsetstyle{en-AU-numeric}}%
                         1354
                                 }%
                         1355
                               }%
                        1356 }%
                        1357 {%
                               \csdef{date\CurrentTrackedDialect}{%
                        1358
                         1359
                                 \DTMifcaseregional
                         1360
                                 {}% do nothing
                                 {\DTMsetstyle{en-AU}}%
                         1361
                                 {\DTMsetstyle{en-AU-numeric}}%
                         1362
                         1363 }%
                        1364 }%
                                   English (New Zealand) Code (datetime2-en-NZ.ldf)
                          14.7
                          This file contains the New Zealand English style.
                              Identify this module.
                         1365 \ensuremath{\,\backslash\,} Provides DateTimeModule \{en-NZ\} [2016/03/09 v1.04 (NLCT)]
                          Load base English module.
                         1366 \RequireDateTimeModule{english-base}
```

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

\DTMenNZdowdaysep The separator between the day of week name and the day of month number for the text format.

1367 \newcommand*{\DTMenNZdowdaysep}{\space}

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

1368 \newcommand*{\DTMenNZdaymonthsep}{\space}

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

1369 \newcommand*{\DTMenNZmonthyearsep}{\space}

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

1370 \newcommand*{\DTMenNZdatetimesep}{\space}

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

1371 \newcommand*{\DTMenNZtimezonesep}{\space}

\DTMenNZdatesep The separator for the numeric date format.

1372 \newcommand*{\DTMenNZdatesep}{/}

\DTMenNZtimesep The separator for the numeric time format.

1373 \newcommand*{\DTMenNZtimesep}{:}

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

```
1374 \DTMdefkey{en-NZ}{dowdaysep}{{renewcommand*{\DTMenNZdowdaysep}{\#1}}}
```

1375 \DTMdefkey{en-NZ}{daymonthsep}{\renewcommand*{\DTMenNZdaymonthsep}{#1}}

 $1376 \DTMdefkey{en-NZ}{monthyearsep}{\renewcommand*{\DTMenNZmonthyearsep}{\#1}}$

1377 \DTMdefkey{en-NZ}{datetimesep}{\renewcommand*{\DTMenNZdatetimesep}{#1}}

1378 \DTMdefkey{en-NZ}{timezonesep}{\renewcommand*{\DTMenNZtimezonesep}{#1}}

1380 \DTMdefkey{en-NZ}{timesep}{\renewcommand*{\DTMenNZtimesep}{#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.

1381 \DTMdefboolkey{en-NZ}{abbr}[true]{}

The default is the full name.

1382 \DTMsetbool{en-NZ}{abbr}{false}

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

1383 \DTMdefboolkey{en-NZ}{mapzone}[true]{}

The default is no mappings.

1384 \DTMsetbool{en-NZ}{mapzone}{false}

Define a boolean key that determines whether to show or hide the day of the month. (Called showdayofmonth instead of showday to avoid confusion with the day of the week.)

```
1385 \DTMdefboolkey{en-NZ}{showdayofmonth}[true]{}
 The default is to show the day of the month.
```

```
1386 \DTMsetbool{en-NZ}{showdayofmonth}{true}
```

Define a boolean key that determines whether to show or hide the year.

```
1387 \DTMdefboolkey{en-NZ}{showyear}[true]{}
```

The default is to show the year.

```
1388 \DTMsetbool{en-NZ}{showyear}{true}
```

\DTMenNZfmtordsuffix Define the ordinal suffix to be used by this style.

```
1389 \newcommand*{\DTMenNZfmtordsuffix}[1]{}
```

```
Define a setting to change the ordinal suffix style.
1390 \texttt{\DTMdefchoicekey{en-NZ}\{ord}[\texttt{\val\nr}]\{level, raise, omit, sc}{\%} 
1391
    \ifcase\nr\relax
       \renewcommand*{\DTMenNZfmtordsuffix}[1]{##1}%
1392
1393
     \or
       \renewcommand*{\DTMenNZfmtordsuffix}[1]{%
1394
         \DTMtexorpdfstring{\protect\textsuperscript{##1}}{##1}}%
1395
1396
     \or
1397
       \renewcommand*{\DTMenNZfmtordsuffix}[1]{}%
1398
       \renewcommand*{\DTMenNZfmtordsuffix}[1]{%
1399
         \DTMtexorpdfstring{\protect\textsc{##1}}{##1}}%
1400
1401 \fi
1402 }
     Define the en-NZ style.
1403 \DTMnewstyle
1404 {en-NZ}% label
     {% date style
1405
1406
       \renewcommand*{\DTMenglishfmtordsuffix}{\DTMenNZfmtordsuffix}%
1407
       \renewcommand*\DTMdisplaydate[4]{%
         \ifDTMshowdow
1408
            \ifnum##4>-1%
1409
```

```
\DTMifbool{en-NZ}{abbr}%
1410
              {\DTMenglishshortweekdayname{##4}}%
1411
              {\DTMenglishweekdayname{##4}}%
1412
1413
            \DTMenNZdowdaysep
           \fi
1414
1415
         \DTMifbool{en-NZ}{showdayofmonth}%
1416
1417
         {%
            \DTMenglishordinal{##3}%
1418
```

\DTMenNZdaymonthsep

1419

1420

}%

```
1421
         \DTMifbool{en-NZ}{abbr}%
1422
         {\DTMenglishshortmonthname{##2}}%
1423
         {\DTMenglishmonthname{##2}}%
1424
         \DTMifbool{en-NZ}{showyear}%
1425
1426
         {%
1427
           \DTMenNZmonthyearsep\number##1 % space intended
        }%
1428
        {}%
1429
      }%
1430
       1431
1432
1433
     {% time style
       \renewcommand*\DTMenglishtimesep{\DTMenNZtimesep}%
1434
       \DTMsettimestyle{englishampm}%
1435
1436 }%
    {% zone style
1437
       \DTMresetzones
1438
1439
       \DTMenNZzonemaps
1440
       \renewcommand*{\DTMdisplayzone}[2]{%
         \DTMifbool{en-NZ}{mapzone}%
1441
         {\DTMusezonemapordefault{##1}{##2}}%
1442
1443
           \ifnum##1<0\else+\fi\DTMtwodigits{##1}%
1444
           \ifDTMshowzoneminutes\DTMenNZtimesep\DTMtwodigits{##2}\fi
1445
        }%
1446
1447
      }%
    }%
1448
     {% full style
1449
       \renewcommand*{\DTMdisplay}[9]{%
1450
        \ifDTMshowdate
1451
1452
         \DTMdisplaydate{##1}{##2}{##3}{##4}%
1453
        \DTMenNZdatetimesep
1454
        \DTMdisplaytime{##5}{##6}{##7}%
1455
        \ifDTMshowzone
1456
         \DTMenNZtimezonesep
1457
        \DTMdisplayzone{##8}{##9}%
1458
1459
        \fi
      }%
1460
1461
       \renewcommand*{\DTMDisplay}{\DTMdisplay}%
1462 }%
    Define numeric style.
1463 \DTMnewstyle
    {en-NZ-numeric}% label
1464
1465
     {% date style
        \renewcommand*\DTMdisplaydate[4]{%
1466
          \DTMifbool{en-NZ}{showdayofmonth}%
1467
1468
```

```
\number##3 % space intended
1469
             \DTMenNZdatesep
1470
          }%
1471
          {}%
1472
          \mbox{number##2 \% space intended}
1473
1474
          \DTMifbool{en-NZ}{showyear}%
1475
          {%
             \DTMenNZdatesep
1476
             \number##1 % space intended
1477
          }%
1478
          {}%
1479
1480
        }%
1481
        \renewcommand*{\DTMDisplaydate}[4]{\DTMdisplaydate{##1}{##2}{##3}{##4}}%
1482
     }%
     {% time style
1483
        \renewcommand*\DTMdisplaytime[3]{%
1484
          \number##1
1485
          \DTMenNZtimesep\DTMtwodigits{##2}%
1486
1487
          \ifDTMshowseconds\DTMenNZtimesep\DTMtwodigits{##3}\fi
1488
        }%
1489 }%
     {% zone style
1490
       \DTMresetzones
1491
       \DTMenNZzonemaps
1492
       \renewcommand*{\DTMdisplayzone}[2]{%
1493
1494
         \DTMifbool{en-NZ}{mapzone}%
         {\DTMusezonemapordefault{##1}{##2}}%
1495
1496
         {%
            \ifnum##1<0\else+\fi\DTMtwodigits{##1}%
1497
            \ifDTMshowzoneminutes\DTMenNZtimesep\DTMtwodigits{##2}\fi
1498
         }%
1499
1500
       }%
1501
     }%
     {% full style
1502
       \renewcommand*{\DTMdisplay}[9]{%
1503
        \ifDTMshowdate
1504
         \DTMdisplaydate{##1}{##2}{##3}{##4}%
1505
         \DTMenNZdatetimesep
1506
1507
        \DTMdisplaytime{##5}{##6}{##7}%
1508
1509
        \ifDTMshowzone
         \DTMenNZtimezonesep
1510
         \DTMdisplayzone{##8}{##9}%
1511
        \fi
1512
1513
       }%
1514
       \renewcommand*{\DTMDisplay}{\DTMdisplay}%
1515 }
```

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

```
1516 \newcommand*{\DTMenNZzonemaps}{%
      \label{local_def_def_def} $$ DTMdefzonemap{12}{00}{NZST}% $$
1517
      \label{local_def_def_def} $$ DTMdefzonemap{12}{45}{CHAST}% $$
1518
      \DTMdefzonemap{13}{00}{NZDT}%
1519
      \label{local-decomp} $$ DTMdefzonemap{13}{45}{CHADT}% $$
1520
1521 }
     Switch style according to the useregional setting.
1522 \DTMifcaseregional
1523 {}% do nothing
1524 {\DTMsetstyle{en-NZ}}%
1525 {\DTMsetstyle{en-NZ-numeric}}%
     Redefine \dateenglish (or \date(dialect)) to prevent babel from resetting
  \today. (For this to work, babel must already have been loaded if it's required.)
1526 \ifcsundef{date\CurrentTrackedDialect}
1527 {% do nothing
1528
      \ifundef\dateenglish
      {%
1529
      }%
1530
      {%
1531
1532
         \def\dateenglish{%
1533
           \DTMifcaseregional
1534
           {}% do nothing
           {\DTMsetstyle{en-NZ}}%
1535
1536
           {\DTMsetstyle{en-NZ-numeric}}%
1537
         }%
1538
      }%
1539 }%
1540 {%
      \csdef{date\CurrentTrackedDialect}{%
1541
1542
         \DTMifcaseregional
         {}% do nothing
1543
1544
         {\DTMsetstyle{en-NZ}}%
1545
         {\DTMsetstyle{en-NZ-numeric}}%
      }%
1546
1547 }%
           English (GG) Code (datetime2-en-GG.ldf)
  This file contains the en-GG style.
```

Identify this module.

```
1548 \end{TimeModule} \label{lem-GG} \cite{Conditions} \cite{Con
```

Load base English module.

```
1549 \ \texttt{\english-base}\}
```

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

\DTMenGGdowdaysep The separator between the day of week name and the day of month number for the text format.

1550 \newcommand*{\DTMenGGdowdaysep}{\space}

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

1551 \newcommand*{\DTMenGGdaymonthsep}{\space}

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

1552 \newcommand*{\DTMenGGmonthyearsep}{\space}

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

1553 \newcommand*{\DTMenGGdatetimesep}{\space}

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

1554 \newcommand*{\DTMenGGtimezonesep}{\space}

\DTMenGGdatesep The separator for the numeric date format.

1555 \newcommand*{\DTMenGGdatesep}{/}

\DTMenGGtimesep The separator for the numeric time format.

1556 \newcommand*{\DTMenGGtimesep}{:}

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

1557 \DTMdefkey{en-GG}{dowdaysep}{\renewcommand*{\DTMenGGdowdaysep}{#1}}

1558 \DTMdefkey{en-GG}{daymonthsep}{\renewcommand*{\DTMenGGdaymonthsep}{#1}}

 $1559 \verb|\DTMdefkey{en-GG}{monthyearsep}{\renewcommand*{\DTMenGGmonthyearsep}{\#1}} \\$

1560 \DTMdefkey{en-GG}{datetimesep}{\renewcommand*{\DTMenGGdatetimesep}{#1}}

1561 \DTMdefkey{en-GG}{timezonesep}{\renewcommand*{\DTMenGGtimezonesep}{#1}}

1562 \DTMdefkey{en-GG}{datesep}{\renewcommand*{\DTMenGGdatesep}{#1}}

1563 \DTMdefkey{en-GG}{timesep}{\renewcommand*{\DTMenGGtimesep}{#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.

1564 \DTMdefboolkey{en-GG}{abbr}[true]{}

The default is the full name.

1565 \DTMsetbool{en-GG}{abbr}{false}

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

 $1566 \ \texttt{DTMdefboolkey\{en-GG\}\{mapzone\}[true]\{}\}$

The default is to use mappings.

1567 \DTMsetbool{en-GG}{mapzone}{true}

Define a boolean key that determines whether to show or hide the day of the month. (Called showdayofmonth instead of showday to avoid confusion with the day of the week.)

1568 \DTMdefboolkey{en-GG}{showdayofmonth}[true]{}

```
1569 \DTMsetbool{en-GG}{showdayofmonth}{true}
                          Define a boolean key that determines whether to show or hide the year.
                     1570 \DTMdefboolkey{en-GG}{showyear}[true]{}
                       The default is to show the year.
                     1571 \DTMsetbool{en-GG}{showyear}{true}
\DTMenGGfmtordsuffix Define the ordinal suffix to be used by this style.
                     1572 \newcommand*{\DTMenGGfmtordsuffix}[1]{#1}
                          Define a setting to change the ordinal suffix style.
                     1573 \DTMdefchoicekey{en-GG}{ord}[\val\nr]{level,raise,omit,sc}{\%}
                     1574 \ \ifcase\nr\relax
                     1575
                             \renewcommand*{\DTMenGGfmtordsuffix}[1]{##1}%
                     1576
                     1577
                             \renewcommand*{\DTMenGGfmtordsuffix}[1]{%
                              \DTMtexorpdfstring{\protect\textsuperscript{##1}}{##1}}%
                     1578
                     1579
                          \or
                     1580
                             \renewcommand*{\DTMenGGfmtordsuffix}[1]{}%
                     1581
                     1582
                             \renewcommand*{\DTMenGGfmtordsuffix}[1]{%
                     1583
                              \DTMtexorpdfstring{\protect\textsc{##1}}{##1}}%
                     1584 \fi
                     1585 }
                          Define the en-GG style.
                     1586 \DTMnewstyle
                     1587 {en-GG}% label
                          {% date style
                             \renewcommand*{\DTMenglishfmtordsuffix}{\DTMenGGfmtordsuffix}%
                     1589
                             \renewcommand*\DTMdisplaydate[4]{%
                     1590
                               \ifDTMshowdow
                     1591
                                 \ifnum##4>-1%
                     1592
                                  \DTMifbool{en-GG}{abbr}%
                     1593
                                   {\DTMenglishshortweekdayname{##4}}%
                     1594
                     1595
                                   {\DTMenglishweekdayname{##4}}%
                                  \DTMenGGdowdaysep
                     1596
                     1597
                                 \fi
                     1598
                               \fi
                               \DTMifbool{en-GG}{showdayofmonth}%
                     1599
                     1600
                               {%
                                 \DTMenglishordinal{##3}%
                     1601
                     1602
                                 \DTMenGGdaymonthsep
                               }%
                     1603
                     1604
                               \DTMifbool{en-GG}{abbr}%
                     1605
                               {\DTMenglishshortmonthname{##2}}%
                     1606
```

{\DTMenglishmonthname{##2}}%

1607

The default is to show the day of the month.

```
1608
         \DTMifbool{en-GG}{showyear}%
1609
         {%
           \DTMenGGmonthyearsep\number##1 % space intended
1610
         }%
1611
         {}%
1612
1613
      }%
1614
       1615 }%
     {% time style
1616
       \renewcommand*\DTMenglishtimesep{\DTMenGGtimesep}%
1617
       \verb|\DTMsettimestyle{englishampm}||%
1618
1619
     {% zone style
1620
       \DTMresetzones
1621
1622
       \DTMenGGzonemaps
1623
       \renewcommand*{\DTMdisplayzone}[2]{%
         \DTMifbool{en-GG}{mapzone}%
1624
         {\DTMusezonemapordefault{##1}{##2}}%
1625
1626
1627
           \ifnum##1<0\else+\fi\DTMtwodigits{##1}%
           \ifDTMshowzoneminutes\DTMenGGtimesep\DTMtwodigits{##2}\fi
1628
         }%
1629
      }%
1630
    }%
1631
     {% full style
1632
       \renewcommand*{\DTMdisplay}[9]{%
1633
        \ifDTMshowdate
1634
         \DTMdisplaydate{##1}{##2}{##3}{##4}%
1635
         \DTMenGGdatetimesep
1636
        \fi
1637
        \DTMdisplaytime{##5}{##6}{##7}%
1638
1639
        \ifDTMshowzone
1640
         \DTMenGGtimezonesep
         \DTMdisplayzone{##8}{##9}%
1641
1642
        \fi
1643
      }%
       \renewcommand*{\DTMDisplay}{\DTMdisplay}%
1644
1645
     Define numeric style.
1646 \DTMnewstyle
1647 {en-GG-numeric}% label
     {% date style
1649
        \renewcommand*\DTMdisplaydate[4]{%
          \DTMifbool{en-GG}{showdayofmonth}%
1650
1651
          {%
            \number##3 % space intended
1652
            \DTMenGGdatesep
1653
          }%
1654
          {}%
1655
```

```
1656
           \number##2 % space intended
           \DTMifbool{en-GG}{showyear}%
1657
           {%
1658
             \DTMenGGdatesep
1659
             \number##1 % space intended
1660
1661
          }%
1662
           {}%
        }%
1663
         \renewcommand*{\DTMDisplaydate}[4]{\DTMdisplaydate{##1}{##2}{##3}{##4}}%
1664
     }%
1665
     {% time style
1666
         \renewcommand*\DTMdisplaytime[3]{%
1667
1668
           \number##1
           \DTMenGGtimesep\DTMtwodigits{##2}%
1669
           \ifDTMshowseconds\DTMenGGtimesep\DTMtwodigits{##3}\fi
1670
        }%
1671
1672 }%
     {% zone style
1673
1674
       \DTMresetzones
1675
       \DTMenGGzonemaps
       \renewcommand*{\DTMdisplayzone}[2]{%
1676
1677
         \DTMifbool{en-GG}{mapzone}%
1678
         {\tt \{\DTMusezonemapordefault\{\#1\}\{\#2\}\}\%}
         {%
1679
            \ifnum##1<0\else+\fi\DTMtwodigits{##1}%
1680
            \ifDTMshowzoneminutes\DTMenGGtimesep\DTMtwodigits{##2}\fi
1681
         }%
1682
       }%
1683
1684 }%
     {% full style
1685
       \renewcommand*{\DTMdisplay}[9]{%
1686
1687
        \ifDTMshowdate
1688
         \DTMdisplaydate{##1}{##2}{##3}{##4}%
         \DTMenGGdatetimesep
1689
1690
         \fi
1691
         \DTMdisplaytime{##5}{##6}{##7}%
         \ifDTMshowzone
1692
1693
         \DTMenGGtimezonesep
1694
         \DTMdisplayzone{##8}{##9}%
1695
1696
       }%
1697
       \renewcommand*{\DTMDisplay}{\DTMdisplay}%
1698 }
 The time zone mappings are set through this command, which can be redefined if
 extra mappings are required or mappings need to be removed.
1699 \newcommand*{\DTMenGGzonemaps}{%
      \label{local_decomp} $$ DTMdefzonemap{00}{00}{GMT}% $$
```

```
1700
1701
      \DTMdefzonemap{01}{00}{BST}%
1702 }
```

Switch style according to the useregional setting.

```
1703 \DTMifcaseregional
1704 {}% do nothing
1705 {\DTMsetstyle{en-GG}}%
1706 {\DTMsetstyle{en-GG-numeric}}%
     Redefine \dateenglish (or \date(dialect)) to prevent babel from resetting
 \today. (For this to work, babel must already have been loaded if it's required.)
1707 \ifcsundef{date\CurrentTrackedDialect}
1708 {% do nothing
      \ifundef\dateenglish
1709
      {%
1710
      }%
1711
      {%
1712
        \def\dateenglish{%
1713
          \DTMifcaseregional
1714
          {}% do nothing
1715
          {\DTMsetstyle{en-GG}}%
1716
1717
          {\DTMsetstyle{en-GG-numeric}}%
1718
        }%
      }%
1719
1720 }%
1721 {%
```

14.9 English (JE) Code (datetime2-en-JE.ldf)

\csdef{date\CurrentTrackedDialect}{%

{\DTMsetstyle{en-GG-numeric}}%

This file contains the en-JE style.

\DTMifcaseregional

{\DTMsetstyle{en-GG}}%

{}% do nothing

Identify this module.

1722

 $1723 \\ 1724$

1725

1726 1727

1728 }%

}%

1729 \ProvidesDateTimeModule{en-JE}[2016/03/09 v1.04 (NLCT)]

Load base English module.

1730 \RequireDateTimeModule{english-base}

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

\DTMenJEdowdaysep The separator between the day of week name and the day of month number for the text format.

 $1731 \verb|\newcommand*{\DTMenJEdowdaysep}{\space}|$

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

 $1732 \verb|\newcommand*{\DTMenJEdaymonthsep}{\space}|$

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

1733 \newcommand*{\DTMenJEmonthyearsep}{\space}

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

1734 \newcommand*{\DTMenJEdatetimesep}{\space}

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

1735 \newcommand*{\DTMenJEtimezonesep}{\space}

\DTMenJEdatesep The separator for the numeric date format.

1736 \newcommand*{\DTMenJEdatesep}{/}

\DTMenJEtimesep The separator for the numeric time format.

1737 \newcommand*{\DTMenJEtimesep}{:}

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

```
1738 \DTMdefkey{en-JE}{dowdaysep}{\renewcommand*{\DTMenJEdowdaysep}{#1}}
```

1739 \DTMdefkey{en-JE}{daymonthsep}{\renewcommand*{\DTMenJEdaymonthsep}{#1}}

 $1740 \DTMdefkey{en-JE}{monthyearsep}{{renewcommand*{DTMenJEmonthyearsep}{{#1}}}}$

1741 \DTMdefkey{en-JE}{datetimesep}{\renewcommand*{\DTMenJEdatetimesep}{#1}}

1742 \DTMdefkey{en-JE}{timezonesep}{\renewcommand*{\DTMenJEtimezonesep}{#1}}

1743 \DTMdefkey{en-JE}{datesep}{\renewcommand*{\DTMenJEdatesep}{#1}}

 $1744 \DTMdefkey{en-JE}{timesep}{\renewcommand*{\DTMenJEtimesep}{\#1}}$

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

1745 \DTMdefboolkey{en-JE}{abbr}[true]{}

The default is the full name.

1746 \DTMsetbool{en-JE}{abbr}{false}

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

1747 \DTMdefboolkey{en-JE}{mapzone}[true]{}

The default is to use mappings.

1748 \DTMsetbool{en-JE}{mapzone}{true}

Define a boolean key that determines whether to show or hide the day of the month. (Called showdayofmonth instead of showday to avoid confusion with the day of the week.)

1749 \DTMdefboolkey{en-JE}{showdayofmonth}[true]{}

The default is to show the day of the month.

1750 \DTMsetbool{en-JE}{showdayofmonth}{true}

Define a boolean key that determines whether to show or hide the year.

1751 \DTMdefboolkey{en-JE}{showyear}[true]{}

```
1752 \DTMsetbool{en-JE}{showyear}{true}
\DTMenJEfmtordsuffix Define the ordinal suffix to be used by this style.
                     1753 \newcommand*{\DTMenJEfmtordsuffix}[1]{#1}
                          Define a setting to change the ordinal suffix style.
                     1754 \DTMdefchoicekey{en-JE}{ord}[\val\nr]{level,raise,omit,sc}{\%}
                          \ifcase\nr\relax
                     1755
                             \renewcommand*{\DTMenJEfmtordsuffix}[1]{##1}%
                     1756
                     1757
                           \or
                     1758
                             \renewcommand*{\DTMenJEfmtordsuffix}[1]{%
                     1759
                              \DTMtexorpdfstring{\protect\textsuperscript{##1}}{##1}}%
                     1760
                          \or
                             \renewcommand*{\DTMenJEfmtordsuffix}[1]{}%
                     1761
                          \or
                     1762
                             \renewcommand*{\DTMenJEfmtordsuffix}[1]{%
                     1763
                              \DTMtexorpdfstring{\protect\textsc{##1}}{##1}}%
                     1764
                     1765 \fi
                     1766 }
                          Define the en-JE style.
                     1767 \DTMnewstyle
                     1768
                          {en-JE}% label
                          {% date style
                     1769
                     1770
                             \renewcommand*{\DTMenglishfmtordsuffix}{\DTMenJEfmtordsuffix}%
                             \renewcommand*\DTMdisplaydate[4]{%
                     1771
                               \ifDTMshowdow
                     1772
                                 \ifnum##4>-1%
                     1773
                     1774
                                  \DTMifbool{en-JE}{abbr}%
                                   {\DTMenglishshortweekdayname{##4}}%
                     1775
                                   {\DTMenglishweekdayname{##4}}%
                     1776
                     1777
                                  \DTMenJEdowdaysep
                                 \fi
                     1778
                               \fi
                     1779
                     1780
                               \DTMifbool{en-JE}{showdayofmonth}%
                     1781
                                 \DTMenglishordinal{##3}%
                     1782
                                 \DTMenJEdaymonthsep
                     1783
                               }%
```

1784

1785

1786

1787

1788

1789 1790 1791

1792 1793

1794

{}%

}%

{}% }%

\DTMifbool{en-JE}{abbr}%

{\DTMenglishmonthname{##2}}%

\DTMifbool{en-JE}{showyear}%

{\DTMenglishshortmonthname{##2}}%

The default is to show the year.

\DTMenJEmonthyearsep\number##1 % space intended

```
1795
       1796 }%
    {% time style
1797
       \renewcommand*\DTMenglishtimesep{\DTMenJEtimesep}%
1798
       \DTMsettimestyle{englishampm}%
1799
1800 }%
1801
     {% zone style
       \DTMresetzones
1802
       \DTMenJEzonemaps
1803
       \renewcommand*{\DTMdisplayzone}[2]{%
1804
         \DTMifbool{en-JE}{mapzone}%
1805
         {\DTMusezonemapordefault{##1}{##2}}%
1806
1807
           \ifnum##1<0\else+\fi\DTMtwodigits{##1}%
1808
           \ifDTMshowzoneminutes\DTMenJEtimesep\DTMtwodigits{##2}\fi
1809
        }%
1810
      }%
1811
1812 }%
1813 {% full style
1814
       \renewcommand*{\DTMdisplay}[9]{%
        \ifDTMshowdate
1815
         \DTMdisplaydate{##1}{##2}{##3}{##4}%
1816
         \DTMenJEdatetimesep
1817
        \fi
1818
        \DTMdisplaytime{##5}{##6}{##7}%
1819
1820
        \ifDTMshowzone
         \DTMenJEtimezonesep
1821
        \DTMdisplayzone{##8}{##9}%
1822
        \fi
1823
      }%
1824
       \renewcommand*{\DTMDisplay}{\DTMdisplay}%
1825
1826 }%
    Define numeric style.
1827 \DTMnewstyle
     {en-JE-numeric}% label
     {% date style
1829
        \renewcommand*\DTMdisplaydate[4]{%
1830
          \DTMifbool{en-JE}{showdayofmonth}%
1831
          {%
1832
            \number##3 % space intended
1833
            \DTMenJEdatesep
1834
1835
          }%
1836
          {}%
1837
          \number##2 % space intended
          \DTMifbool{en-JE}{showyear}%
1838
          {%
1839
            \DTMenJEdatesep
1840
            \number##1 % space intended
1841
1842
```

```
}%
                 1844
                         \renewcommand*{\DTMDisplaydate}[4]{\DTMdisplaydate{##1}{##2}{##3}{##4}}%
                1845
                 1846 }%
                      {% time style
                1847
                 1848
                         \renewcommand*\DTMdisplaytime[3]{%
                 1849
                           \number##1
                           \DTMenJEtimesep\DTMtwodigits{##2}%
                1850
                           \ifDTMshowseconds\DTMenJEtimesep\DTMtwodigits{##3}\fi
                 1851
                         }%
                1852
                     }%
                 1853
                      {% zone style
                 1854
                        \DTMresetzones
                 1855
                        \DTMenJEzonemaps
                 1856
                        \renewcommand*{\DTMdisplayzone}[2]{%
                 1857
                          \DTMifbool{en-JE}{mapzone}%
                 1858
                          {\DTMusezonemapordefault{##1}{##2}}%
                 1859
                 1860
                          {%
                 1861
                            \ifnum##1<0\else+\fi\DTMtwodigits{##1}%
                 1862
                            \ifDTMshowzoneminutes\DTMenJEtimesep\DTMtwodigits{##2}\fi
                          }%
                 1863
                        }%
                 1864
                1865 }%
                      {% full style
                 1866
                        \renewcommand*{\DTMdisplay}[9]{%
                 1867
                         \ifDTMshowdate
                 1868
                          \DTMdisplaydate{##1}{##2}{##3}{##4}%
                 1869
                          \DTMenJEdatetimesep
                 1870
                         \fi
                 1871
                         \DTMdisplaytime{##5}{##6}{##7}%
                 1872
                         \ifDTMshowzone
                 1873
                 1874
                          \DTMenJEtimezonesep
                 1875
                          \DTMdisplayzone{##8}{##9}%
                         \fi
                1876
                 1877
                        }%
                1878
                        \renewcommand*{\DTMDisplay}{\DTMdisplay}%
                 1879
                  The time zone mappings are set through this command, which can be redefined if
\DTMenJEzonemaps
                  extra mappings are required or mappings need to be removed.
                 1880 \newcommand*{\DTMenJEzonemaps}{%
                       1881
                 1882
                       \DTMdefzonemap{01}{00}{BST}%
                 1883 }
                      Switch style according to the useregional setting.
                 1884 \DTMifcaseregional
                 1885 {}% do nothing
                 1886 {\DTMsetstyle{en-JE}}%
                 1887 {\DTMsetstyle{en-JE-numeric}}%
```

{}%

1843

Redefine \dateenglish (or $\date(dialect)$) to prevent babel from resetting \dated . (For this to work, babel must already have been loaded if it's required.)

```
1888 \ifcsundef{date\CurrentTrackedDialect}
1889 {% do nothing
1890
      \ifundef\dateenglish
1891
      {%
1892
      }%
1893
      {%
1894
        \def\dateenglish{%
1895
          \DTMifcaseregional
1896
          {}% do nothing
          {\DTMsetstyle{en-JE}}%
1897
1898
          {\DTMsetstyle{en-JE-numeric}}%
        }%
1899
      }%
1900
1901 }%
1902 {%
      \csdef{date\CurrentTrackedDialect}{%
1903
        \DTMifcaseregional
1904
1905
        {}% do nothing
1906
        {\DTMsetstyle{en-JE}}%
1907
        {\DTMsetstyle{en-JE-numeric}}%
1908
     }%
1909 }%
```

14.10 English (IM) Code (datetime2-en-IM.ldf)

This file contains the en-IM style.

Identify this module.

1910 \ProvidesDateTimeModule{en-IM}[2016/03/09 v1.04 (NLCT)]

Load base English module.

1911 \RequireDateTimeModule{english-base}

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

\DTMenIMdowdaysep The separator between the day of week name and the day of month number for the text format.

1912 \newcommand*{\DTMenIMdowdaysep}{\space}

 $\verb|\DTMenIMdaymonthsep| The separator between the day and month for the text format.$

1913 \newcommand*{\DTMenIMdaymonthsep}{\space}

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

1914 \newcommand*{\DTMenIMmonthyearsep}{\space}

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

1915 \newcommand*{\DTMenIMdatetimesep}{\space}

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

1916 \newcommand*{\DTMenIMtimezonesep}{\space}

\DTMenIMdatesep The separator for the numeric date format.

1917 \newcommand*{\DTMenIMdatesep}{/}

\DTMenIMtimesep The separator for the numeric time format.

1918 \newcommand*{\DTMenIMtimesep}{:}

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

```
1919 \texttt{\DTMdefkey{en-IM}{dowdaysep}{\renewcommand*{\DTMenIMdowdaysep}{\#1}}}
```

1920 \DTMdefkey{en-IM}{daymonthsep}{\renewcommand*{\DTMenIMdaymonthsep}{#1}}

1921 \DTMdefkey{en-IM}{monthyearsep}{\renewcommand*{\DTMenIMmonthyearsep}{#1}}

1922 \DTMdefkey{en-IM}{datetimesep}{\renewcommand*{\DTMenIMdatetimesep}{#1}}

1923 \DTMdefkey{en-IM}{timezonesep}{\renewcommand*{\DTMenIMtimezonesep}{#1}}

1924 \DTMdefkey{en-IM}{datesep}{\renewcommand*{\DTMenIMdatesep}{#1}}

1925 \DTMdefkey{en-IM}{timesep}{\renewcommand*{\DTMenIMtimesep}{\#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.

1926 \DTMdefboolkey{en-IM}{abbr}[true]{}

The default is the full name.

```
1927 \DTMsetbool{en-IM}{abbr}{false}
```

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

1928 \DTMdefboolkey{en-IM}{mapzone}[true]{}

The default is to use mappings.

```
1929 \DTMsetbool{en-IM}{mapzone}{true}
```

Define a boolean key that determines whether to show or hide the day of the month. (Called showdayofmonth instead of showday to avoid confusion with the day of the week.)

1930 \DTMdefboolkey{en-IM}{showdayofmonth}[true]{}

The default is to show the day of the month.

1931 \DTMsetbool{en-IM}{showdayofmonth}{true}

Define a boolean key that determines whether to show or hide the year.

1932 \DTMdefboolkey{en-IM}{showyear}[true]{}

The default is to show the year.

1933 \DTMsetbool{en-IM}{showyear}{true}

\DTMenIMfmtordsuffix Define the ordinal suffix to be used by this style.

```
1934 \newcommand*{\DTMenIMfmtordsuffix}[1]{#1}
```

```
Define a setting to change the ordinal suffix style.
1936
    \ifcase\nr\relax
1937
       \renewcommand*{\DTMenIMfmtordsuffix}[1]{##1}%
1938
     \or
1939
      \renewcommand*{\DTMenIMfmtordsuffix}[1]{%
       \DTMtexorpdfstring{\protect\textsuperscript{##1}}{##1}}%
1940
     \or
1941
1942
      \renewcommand*{\DTMenIMfmtordsuffix}[1]{}%
1943
    \or
      \renewcommand*{\DTMenIMfmtordsuffix}[1]{%
1944
       \DTMtexorpdfstring{\protect\textsc{##1}}{##1}}%
1945
1946 \fi
1947 }
    Define the en-IM style.
1948 \DTMnewstyle
1949 \{en-IM\}\% label
    {% date style
1950
1951
      \verb|\command*{\DTMenglishfmtordsuffix}{\DTMenIMfmtordsuffix}|,
1952
      \renewcommand*\DTMdisplaydate[4]{%
        \ifDTMshowdow
1953
          \ifnum##4>-1%
1954
           \DTMifbool{en-IM}{abbr}%
1955
            {\DTMenglishshortweekdayname{##4}}%
1956
            {\DTMenglishweekdayname{##4}}%
1957
1958
           \DTMenIMdowdaysep
          \fi
1959
        \fi
1960
        \DTMifbool{en-IM}{showdayofmonth}%
1961
1962
          \DTMenglishordinal{##3}%
1963
1964
          \DTMenIMdaymonthsep
        }%
1965
1966
        \DTMifbool{en-IM}{abbr}%
1967
        {\DTMenglishshortmonthname{##2}}%
1968
        {\DTMenglishmonthname{##2}}%
1969
        \DTMifbool{en-IM}{showyear}%
1970
1971
          \DTMenIMmonthyearsep\number##1 % space intended
1972
        }%
1973
1974
        {}%
1975
      }%
      1976
1977 }%
1978 {% time style
```

```
1979
       \renewcommand*\DTMenglishtimesep{\DTMenIMtimesep}%
       \DTMsettimestyle{englishampm}%
1980
1981 }%
1982 {% zone style
       \DTMresetzones
1983
1984
       \DTMenIMzonemaps
1985
       \renewcommand*{\DTMdisplayzone}[2]{%
         \DTMifbool{en-IM}{mapzone}%
1986
1987
         {\DTMusezonemapordefault{##1}{##2}}%
1988
           \ifnum##1<0\else+\fi\DTMtwodigits{##1}%
1989
           \ifDTMshowzoneminutes\DTMenIMtimesep\DTMtwodigits{##2}\fi
1990
         }%
1991
       }%
1992
1993 }%
     {% full style
1994
       \renewcommand*{\DTMdisplay}[9]{%
1995
        \ifDTMshowdate
1996
1997
         \DTMdisplaydate{##1}{##2}{##3}{##4}%
1998
         \DTMenIMdatetimesep
1999
        \DTMdisplaytime{##5}{##6}{##7}%
2000
        \ifDTMshowzone
2001
         \DTMenIMtimezonesep
2002
         \DTMdisplayzone{##8}{##9}%
2003
2004
        \fi
2005
       \renewcommand*{\DTMDisplay}{\DTMdisplay}%
2006
2007 }%
     Define numeric style.
2008 \DTMnewstyle
     {en-IM-numeric}% label
2009
     {% date style
2010
        \renewcommand*\DTMdisplaydate[4]{%
2011
2012
          \DTMifbool{en-IM}{showdayofmonth}%
2013
          {%
             \number##3 % space intended
2014
2015
            \DTMenIMdatesep
          }%
2016
          {}%
2017
          \number##2 % space intended
2018
2019
          \DTMifbool{en-IM}{showyear}%
2020
          {%
2021
            \DTMenIMdatesep
            \number##1 % space intended
2022
          }%
2023
          {}%
2024
2025
        \renewcommand*{\DTMDisplaydate}[4]{\DTMdisplaydate{##1}{##2}{##3}{##4}}%
2026
```

```
2027 }%
2028
     {% time style
        \renewcommand*\DTMdisplaytime[3]{%
2029
          \number##1
2030
          \DTMenIMtimesep\DTMtwodigits{##2}%
2031
2032
          \ifDTMshowseconds\DTMenIMtimesep\DTMtwodigits{##3}\fi
2033
2034 }%
     {% zone style
2035
       \DTMresetzones
2036
       \DTMenIMzonemaps
2037
       \renewcommand*{\DTMdisplayzone}[2]{%
2038
2039
         \DTMifbool{en-IM}{mapzone}%
         {\DTMusezonemapordefault{##1}{##2}}%
2040
2041
           \ifnum##1<0\else+\fi\DTMtwodigits{##1}%
2042
           \ifDTMshowzoneminutes\DTMenIMtimesep\DTMtwodigits{##2}\fi
2043
         }%
2044
2045
       }%
2046 }%
     {% full style
2047
       \renewcommand*{\DTMdisplay}[9]{%
2048
        \ifDTMshowdate
2049
         \DTMdisplaydate{##1}{##2}{##3}{##4}%
2050
2051
         \DTMenIMdatetimesep
2052
        \DTMdisplaytime{##5}{##6}{##7}%
2053
        \ifDTMshowzone
2054
         \DTMenIMtimezonesep
2055
         \DTMdisplayzone{##8}{##9}%
2056
        \fi
2057
2058
       }%
2059
       \renewcommand*{\DTMDisplay}{\DTMdisplay}%
2060
```

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

```
2061 \newcommand*{\DTMenIMzonemaps}{%} 2062 \DTMdefzonemap{00}{00}{GMT}% 2063 \DTMdefzonemap{01}{00}{BST}% 2064}
```

Switch style according to the useregional setting.

```
2065 \DTMifcaseregional
2066 {}% do nothing
2067 {\DTMsetstyle{en-IM}}%
2068 {\DTMsetstyle{en-IM-numeric}}%
```

Redefine \dateenglish (or $\date(dialect)$) to prevent babel from resetting \dated . (For this to work, babel must already have been loaded if it's required.)

```
2069 \ifcsundef{date\CurrentTrackedDialect}
2070 {% do nothing
      \ifundef\dateenglish
2071
      {%
2072
      }%
2073
2074
      {%
2075
         \def\dateenglish{%
          \DTMifcaseregional
2076
2077
          {}% do nothing
          {\DTMsetstyle{en-IM}}%
2078
          {\DTMsetstyle{en-IM-numeric}}%
2079
        }%
2080
      }%
2081
2082 }%
2083 {%
2084
      \csdef{date\CurrentTrackedDialect}{%
        \DTMifcaseregional
2085
        {}% do nothing
2086
2087
        {\DTMsetstyle{en-IM}}%
2088
        {\DTMsetstyle{en-IM-numeric}}%
     }%
2089
2090 }%
```

14.11 English (MT) Code (datetime2-en-MT.ldf)

This file contains the en-MT style.

Identify this module.

2091 \ProvidesDateTimeModule{en-MT}[2016/03/09 v1.04 (NLCT)]

Load base English module.

```
2092 \ \texttt{RequireDateTimeModule\{english-base\}}
```

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

\DTMenMTdowdaysep The separator between the day of week name and the day of month number for the text format.

```
2093 \newcommand*{\DTMenMTdowdaysep}{\space}
```

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

```
2094 \mbox{DTMenMTdaymonthsep}{\space}
```

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

```
2095 \newcommand*{\DTMenMTmonthyearsep}{\space}
```

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

```
2096 \newcommand*{\DTMenMTdatetimesep}{\space}
```

```
The separator between the time and zone blocks in the full format (either text or
\DTMenMTtimezonesep
                     numeric).
                    2097 \newcommand*{\DTMenMTtimezonesep}{\space}
    \DTMenMTdatesep The separator for the numeric date format.
                    2098 \newcommand*{\DTMenMTdatesep}{/}
    \DTMenMTtimesep The separator for the numeric time format.
                    2099 \newcommand*{\DTMenMTtimesep}{:}
                         Provide keys that can be used in \DTMlangsetup to set these separators.
                    2100 \DTMdefkey{en-MT}{dowdaysep}{\{renewcommand*{\{\DTMenMTdowdaysep\}\{\#1\}\}}}
                    2101 \DTMdefkey{en-MT}{daymonthsep}{\renewcommand*{\DTMenMTdaymonthsep}{#1}}
                    2102 \DTMdefkey{en-MT}{monthyearsep}{\renewcommand*{\DTMenMTmonthyearsep}{#1}}
                    2103 \DTMdefkey{en-MT}{datetimesep}{{renewcommand*{}}} TMenMTdatetimesep}{\#1}}
                    2104 \DTMdefkey{en-MT}{timezonesep}{\renewcommand*{\DTMenMTtimezonesep}{#1}}
                    2105 \DTMdefkey{en-MT}{datesep}{\renewcommand*{\DTMenMTdatesep}{#1}}
                    2106 \DTMdefkey{en-MT}{timesep}{\renewcommand*{\DTMenMTtimesep}{\#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.
                    2107 \DTMdefboolkey{en-MT}{abbr}[true]{}
                     The default is the full name.
                    2108 \DTMsetbool{en-MT}{abbr}{false}
                         Define a boolean key that determines if the time zone mappings should be
                     used.
                    2109 \DTMdefboolkey{en-MT}{mapzone}[true]{}
                     The default is to use mappings.
                    2110 \DTMsetbool{en-MT}{mapzone}{true}
                         Define a boolean key that determines whether to show or hide the day of the
                     month. (Called showdayofmonth instead of showday to avoid confusion with the
                     day of the week.)
                    2111 \DTMdefboolkey{en-MT}{showdayofmonth}[true]{}
                     The default is to show the day of the month.
                    2112 \DTMsetbool{en-MT}{showdayofmonth}{true}
                         Define a boolean key that determines whether to show or hide the year.
                    2113 \DTMdefboolkey{en-MT}{showyear}[true]{}
                     The default is to show the year.
                    2114 \DTMsetbool{en-MT}{showyear}{true}
```

\DTMenMTfmtordsuffix Define the ordinal suffix to be used by this style.

2115 \newcommand*{\DTMenMTfmtordsuffix}[1]{}

Define a setting to change the ordinal suffix style. 2117 \ifcase\nr\relax \renewcommand*{\DTMenMTfmtordsuffix}[1]{##1}% 2118 2119 \or 2120 \renewcommand*{\DTMenMTfmtordsuffix}[1]{% \DTMtexorpdfstring{\protect##1}{##1}}% 2121 2122 \or \renewcommand*{\DTMenMTfmtordsuffix}[1]{}% 2123 2124 \or \renewcommand*{\DTMenMTfmtordsuffix}[1]{% 2125 2126 \DTMtexorpdfstring{\protect\textsc{##1}}{##1}}% 2127 \fi 2128 } Define the en-MT style. 2129 \DTMnewstyle 2130 {en-MT}% label 2131 {% date style \renewcommand*{\DTMenglishfmtordsuffix}{\DTMenMTfmtordsuffix}% 2132 \renewcommand*\DTMdisplaydate[4]{% 21332134 \ifDTMshowdow 2135\ifnum##4>-1% \DTMifbool{en-MT}{abbr}% 2136 2137 {\DTMenglishshortweekdayname{##4}}% 2138 {\DTMenglishweekdayname{##4}}% 2139 \DTMenMTdowdaysep 2140 \fi 2141 2142\DTMifbool{en-MT}{showdayofmonth}% 2143 \DTMenglishordinal{##3}% 2144 \DTMenMTdaymonthsep 2145 2146 }% 2147 {}% \DTMifbool{en-MT}{abbr}% 2148 2149 {\DTMenglishshortmonthname{##2}}% {\DTMenglishmonthname{##2}}% 2150 \DTMifbool{en-MT}{showyear}% 2151 2152 {% \DTMenMTmonthyearsep\number##1 % space intended 2153 2154}% 2155{}% }% 2156 2157

\renewcommand*\DTMenglishtimesep{\DTMenMTtimesep}%

\DTMsettimestyle{englishampm}%

2158 }%

2162 }%

 $2160 \\ 2161$

2159 {% time style

```
2163 {% zone style
2164
        \DTMresetzones
        \DTMenMTzonemaps
2165
        \renewcommand*{\DTMdisplayzone}[2]{%
2166
          \DTMifbool{en-MT}{mapzone}%
2167
2168
          {\DTMusezonemapordefault{##1}{##2}}%
2169
            \ifnum##1<0\else+\fi\DTMtwodigits{##1}%
2170
            \ifDTMshowzoneminutes\DTMenMTtimesep\DTMtwodigits{##2}\fi
2171
          }%
2172
       }%
2173
2174
2175
     {% full style
        \renewcommand*{\DTMdisplay}[9]{%
2176
         \ifDTMshowdate
2177
          \label{lem:displaydate} $$ \DTMdisplaydate{##1}{##2}{##3}{##4}% $$
2178
          \DTMenMTdatetimesep
2179
         \fi
2180
         \label{lem:displaytime} $$ \DTMdisplaytime{##5}{##6}{##7}% $$
2181
2182
         \ifDTMshowzone
          \DTMenMTtimezonesep
2183
          \verb|\DTMdisplayzone{##8}{##9}||
2184
         \fi
2185
       }%
2186
       \renewcommand*{\DTMDisplay}{\DTMdisplay}%
2187
2188 }%
     Define numeric style.
2189 \ \DTMnewstyle
2190 {en-MT-numeric}% label
2191
     {% date style
         \renewcommand*\DTMdisplaydate[4]{%
2192
           \DTMifbool{en-MT}{showdayofmonth}%
2193
2194
           {%
             \number##3 % space intended
2195
2196
             \DTMenMTdatesep
2197
           {}%
2198
           \number##2 % space intended
2199
           \DTMifbool{en-MT}{showyear}%
2200
           {%
2201
             \DTMenMTdatesep
2202
2203
             \number##1 % space intended
2204
           }%
2205
           {}%
         }%
2206
         \renewcommand*{\DTMDisplaydate}[4]{\DTMdisplaydate{##1}{##2}{##3}{##4}}%
2207
     }%
2208
     {% time style
2209
         \renewcommand*\DTMdisplaytime[3]{%
2210
```

```
2211
          \number##1
2212
          \DTMenMTtimesep\DTMtwodigits{##2}%
          \ifDTMshowseconds\DTMenMTtimesep\DTMtwodigits{##3}\fi
2213
        }%
2214
2215 }%
2216 {% zone style
2217
       \DTMresetzones
2218
       \DTMenMTzonemaps
2219
       \renewcommand*{\DTMdisplayzone}[2]{%
         \DTMifbool{en-MT}{mapzone}%
2220
         {\DTMusezonemapordefault{##1}{##2}}%
2221
2222
           \ifnum##1<0\else+\fi\DTMtwodigits{##1}%
2223
           \ifDTMshowzoneminutes\DTMenMTtimesep\DTMtwodigits{##2}\fi
2224
         }%
2225
       }%
2226
2227 }%
     {% full style
2228
2229
       \renewcommand*{\DTMdisplay}[9]{%
2230
        \ifDTMshowdate
         \DTMdisplaydate{##1}{##2}{##3}{##4}%
2231
         \DTMenMTdatetimesep
2232
2233
        \DTMdisplaytime{##5}{##6}{##7}%
2234
2235
        \ifDTMshowzone
2236
         \DTMenMTtimezonesep
         \DTMdisplayzone{##8}{##9}%
2237
2238
        \fi
       }%
2239
       \renewcommand*{\DTMDisplay}{\DTMdisplay}%
2240
2241 }
 extra mappings are required or mappings need to be removed.
```

The time zone mappings are set through this command, which can be redefined if \DTMenMTzonemaps

```
2242 \newcommand*{\DTMenMTzonemaps}{%
         \DTMdefzonemap{02}{00}{CEST}%
2243
         \label{local_def_cert} $$ \operatorname{DTMdefzonemap}_{01}_{00}_{CET}_{\%} $$
2244
2245 }
```

Switch style according to the useregional setting.

```
2246 \DTMifcaseregional
2247 {}% do nothing
2248 {\DTMsetstyle{en-MT}}%
2249 {\DTMsetstyle{en-MT-numeric}}%
```

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

```
2250 \ifcsundef{date\CurrentTrackedDialect}
2251 {% do nothing
2252 \ifundef\dateenglish
```

```
2253
      {%
      }%
2254
      {%
2255
        \def\dateenglish{%
2256
           \DTMifcaseregional
2257
2258
           {}% do nothing
2259
           {\DTMsetstyle{en-MT}}%
           {\DTMsetstyle{en-MT-numeric}}%
2260
2261
        }%
      }%
2262
2263 }%
2264 {%
2265
      \csdef{date\CurrentTrackedDialect}{%
         \DTMifcaseregional
2266
        {}% do nothing
2267
        {\DTMsetstyle{en-MT}}%
2268
        {\DTMsetstyle{en-MT-numeric}}%
2269
      }%
2270
2271 }%
```

14.12 English (IE) Code (datetime2-en-IE.ldf)

This file contains the en-IE style.

Identify this module.

2272 \ProvidesDateTimeModule{en-IE}[2016/03/09 v1.04 (NLCT)]

Load base English module.

```
2273 \RequireDateTimeModule{english-base}
```

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

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

```
2274 \newcommand*{\DTMenIEdowdaysep}{\space}
```

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

```
2275 \newcommand*{\DTMenIEdaymonthsep}{\space}
```

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

```
2276 \newcommand*{\DTMenIEmonthyearsep}{\space}
```

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

```
2277 \newcommand*{\DTMenIEdatetimesep}{\space}
```

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

2278 \newcommand*{\DTMenIEtimezonesep}{\space}

```
2279 \newcommand*{\DTMenIEdatesep}{/}
    \DTMenIEtimesep
                    The separator for the numeric time format.
                   2280 \newcommand*{\DTMenIEtimesep}{:}
                        Provide keys that can be used in \DTMlangsetup to set these separators.
                   2281 \texttt{\DTMdefkey{en-IE}} \\ dowdaysep} \\ \\ \texttt{\DTMenIEdowdaysep} \\ \\ \#1\} \\ \}
                   2282 \DTMdefkey{en-IE}{daymonthsep}{{renewcommand*{DTMenIEdaymonthsep}{{#1}}}}
                   2283 \DTMdefkey{en-IE}{monthyearsep}{\renewcommand*{\DTMenIEmonthyearsep}{#1}}
                   2285 \DTMdefkey{en-IE}{timezonesep}{\renewcommand*{\DTMenIEtimezonesep}{#1}}
                   2286 \DTMdefkey{en-IE}{datesep}{\renewcommand*{\DTMenIEdatesep}{\#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.
                   2288 \DTMdefboolkey{en-IE}{abbr}[true]{}
                     The default is the full name.
                   2289 \DTMsetbool{en-IE}{abbr}{false}
                        Define a boolean key that determines if the time zone mappings should be
                     used.
                   2290 \DTMdefboolkey{en-IE}{mapzone}[true]{}
                     The default is to use mappings.
                   2291 \DTMsetbool{en-IE}{mapzone}{true}
                        Define a boolean key that determines whether to show or hide the day of the
                     month. (Called showdayofmonth instead of showday to avoid confusion with the
                     day of the week.)
                   2292 \DTMdefboolkey{en-IE}{showdayofmonth}[true]{}
                     The default is to show the day of the month.
                   2293 \DTMsetbool{en-IE}{showdayofmonth}{true}
                        Define a boolean key that determines whether to show or hide the year.
                   2294 \DTMdefboolkey{en-IE}{showyear}[true]{}
                     The default is to show the year.
                   2295 \DTMsetbool{en-IE}{showyear}{true}
\DTMenIEfmtordsuffix Define the ordinal suffix to be used by this style.
                   2296 \newcommand*{\DTMenIEfmtordsuffix}[1]{#1}
                        Define a setting to change the ordinal suffix style.
                   2297 \DTMdefchoicekey{en-IE}{ord}[\val\nr]{level,raise,omit,sc}{\%}
                   \renewcommand*{\DTMenIEfmtordsuffix}[1]{##1}%
                   2299
                   2300 \or
                   2301
                          \renewcommand*{\DTMenIEfmtordsuffix}[1]{%
```

\DTMenIEdatesep The separator for the numeric date format.

```
2302
        \DTMtexorpdfstring{\protect\textsuperscript{##1}}{##1}}%
2303 \or
       \renewcommand*{\DTMenIEfmtordsuffix}[1]{}%
2304
    \or
2305
       \renewcommand*{\DTMenIEfmtordsuffix}[1]{%
2306
2307
        \DTMtexorpdfstring{\protect\textsc{##1}}{##1}}%
2308 \fi
2309 }
    Define the en-IE style.
2310 \DTMnewstyle
2311 {en-IE}% label
2312 {% date style
       \renewcommand*{\DTMenglishfmtordsuffix}{\DTMenIEfmtordsuffix}%
2313
       \renewcommand*\DTMdisplaydate[4]{%
2314
2315
         \ifDTMshowdow
2316
           \ifnum##4>-1%
            \DTMifbool{en-IE}{abbr}%
2317
2318
             {\DTMenglishshortweekdayname{##4}}%
2319
             {\DTMenglishweekdayname{##4}}%
            \DTMenIEdowdaysep
2320
           \fi
2321
2322
         \fi
         \DTMifbool{en-IE}{showdayofmonth}%
2323
2324
2325
           \DTMenglishordinal{##3}%
           \DTMenIEdaymonthsep
2326
        }%
2327
2328
         {}%
2329
         \DTMifbool{en-IE}{abbr}%
2330
         {\DTMenglishshortmonthname{##2}}%
2331
         {\DTMenglishmonthname{##2}}%
         \DTMifbool{en-IE}{showyear}%
2332
2333
         {%
           \DTMenIEmonthyearsep\number##1 % space intended
2334
2335
        }%
2336
        {}%
      }%
2337
       2338
2339 }%
2340 {% time style
       \renewcommand*\DTMenglishtimesep{\DTMenIEtimesep}%
2341
2342
       \DTMsettimestyle{englishampm}%
2343 }%
2344
    {% zone style
       \DTMresetzones
2345
       \DTMenIEzonemaps
2346
       \renewcommand*{\DTMdisplayzone}[2]{%
2347
2348
         \DTMifbool{en-IE}{mapzone}%
         {\DTMusezonemapordefault{##1}{##2}}%
2349
```

```
2350
         {%
           \ifnum##1<0\else+\fi\DTMtwodigits{##1}%
2351
           \ifDTMshowzoneminutes\DTMenIEtimesep\DTMtwodigits{##2}\fi
2352
         }%
2353
       }%
2354
2355 }%
2356
     {% full style
       \renewcommand*{\DTMdisplay}[9]{%
2357
2358
        \ifDTMshowdate
         \label{lem:displaydate} $$ \DTMdisplaydate{##1}{##2}{##3}{##4}% $$
2359
         \DTMenIEdatetimesep
2360
2361
        \DTMdisplaytime{##5}{##6}{##7}%
2362
        \ifDTMshowzone
2363
         \DTMenIEtimezonesep
2364
         \DTMdisplayzone{##8}{##9}%
2365
        \fi
2366
       }%
2367
2368
       \renewcommand*{\DTMDisplay}{\DTMdisplay}%
2369 }%
     Define numeric style.
2370 \DTMnewstyle
     {en-IE-numeric}% label
2371
     {% date style
2372
        \renewcommand*\DTMdisplaydate[4]{%
2373
          \DTMifbool{en-IE}{showdayofmonth}%
2374
2375
            \number##3 % space intended
2376
2377
            \DTMenIEdatesep
2378
          }%
2379
          {}%
          \number##2 % space intended
2380
          \DTMifbool{en-IE}{showyear}%
2381
2382
2383
            \DTMenIEdatesep
            \number##1 % space intended
2384
          }%
2385
2386
          {}%
        }%
2387
        2388
2389 }%
2390
     {% time style
2391
        \renewcommand*\DTMdisplaytime[3]{%
2392
          \number##1
          \DTMenIEtimesep\DTMtwodigits{##2}%
2393
          \ifDTMshowseconds\DTMenIEtimesep\DTMtwodigits{##3}\fi
2394
        }%
2395
    }%
2396
2397 {% zone style
```

```
\DTMresetzones
                 2398
                        \DTMenIEzonemaps
                 2399
                        \renewcommand*{\DTMdisplayzone}[2]{%
                 2400
                          \DTMifbool{en-IE}{mapzone}%
                 2401
                          {\DTMusezonemapordefault{##1}{##2}}%
                 2402
                 2403
                 2404
                             \ifnum##1<0\else+\fi\DTMtwodigits{##1}%
                             \ifDTMshowzoneminutes\DTMenIEtimesep\DTMtwodigits{##2}\fi
                 2405
                          }%
                 2406
                        }%
                 2407
                      }%
                 2408
                 2409
                      {% full style
                        \renewcommand*{\DTMdisplay}[9]{%
                 2410
                         \ifDTMshowdate
                 2411
                          \DTMdisplaydate{##1}{##2}{##3}{##4}%
                 2412
                          \DTMenIEdatetimesep
                 2413
                 2414
                         \DTMdisplaytime{##5}{##6}{##7}%
                 2415
                 2416
                         \ifDTMshowzone
                 2417
                          \DTMenIEtimezonesep
                          \DTMdisplayzone{##8}{##9}%
                 2418
                 2419
                         \fi
                        }%
                 2420
                        \renewcommand*{\DTMDisplay}{\DTMdisplay}%
                 2421
                 2422 }
\DTMenIEzonemaps The time zone mappings are set through this command, which can be redefined if
                   extra mappings are required or mappings need to be removed.
                 2423 \newcommand*{\DTMenIEzonemaps}{%
                       \DTMdefzonemap{00}{00}{GMT}%
                 2425
                       \DTMdefzonemap{01}{00}{IST}%
                 2426 }
                      Switch style according to the useregional setting.
                 2427 \DTMifcaseregional
                 2428 {}% do nothing
                 2429 {\DTMsetstyle{en-IE}}%
                 2430 {\DTMsetstyle{en-IE-numeric}}%
                      Redefine \dateenglish (or \date(dialect)) to prevent babel from resetting
                   \today. (For this to work, babel must already have been loaded if it's required.)
                 2431 \ifcsundef{date\CurrentTrackedDialect}
                 2432 {% do nothing
                       \ifundef\dateenglish
                 2433
                       {%
                 2434
                 2435
                       }%
                 2436
                       {%
                         \def\dateenglish{%
                 2437
```

2438

2439

\DTMifcaseregional

{}% do nothing

```
{\tt \{\DTMsetstyle\{en-IE\}\}\%}
2440
2441
             {\tt \{\DTMsetstyle\{en-IE-numeric\}\}\%}
2442
          }%
      }%
2443
2444 }%
2445 {%
       \verb|\csdef{date}| CurrentTrackedDialect|{\%}|
2446
2447
          \verb|\DTMifcaseregional||
2448
          \{\}\% do nothing
          {\tt \{\DTMsetstyle\{en-IE\}\}\%}
2449
          {\tt \{\DTMsetstyle\{en-IE-numeric\}\}\%}
2450
      }%
2451
2452 }%
```

Change History

1.0	\DTMenCAcentralzonemaps: new . 39
General: Initial release 12, 17,	\DTMenCAdstzonemaps: new 38
19, 24, 32, 40, 47, 52, 57, 62, 67, 72	\DTMenCAeasternzonemaps: new . 39
1.01	\DTMenCAmountainzonemaps: new 39
General: fixed mispelt style name 22	\DTMenCAnewfoundlandzonemaps:
1.02	new
General: added support for show-	\DTMenCApacificzonemaps: new . 39
dow option 27	\DTMenCAstdzonemaps: new 38
\DTMenCAdowmonthsep: new 32	\DTMenUSalaskazonemaps: new 31
,	· •
-	•
1.03	\DTMenUScentralzonemaps: new . 31
General: added zone option to en-	\DTMenUSchamorrozonemaps: new 31
AU	\DTMenUSdstzonemaps: new 30
added zone option to en-CA 34	\DTMenUSeasternzonemaps: new . 31
added zone option to en-US 26	\DTMenUShawaiialeutianzonemaps:
fixed bug that displayed am in-	new 31
stead of pm 17	\DTMenUSmountainzonemaps: new 31
\DTMenAUcentralwesternzonemaps:	$\DTMenUSpacificzonemaps: new . 31$
new 46	\DTMenUSsamoazonemaps: new 31
$\DTMenAUcentralzonemaps: new$. 46	\DTMenUSstdzonemaps: new 30
\DTMenAUchrismaszonemaps: new 46	1.04
\DTMenAUcocoszonemaps: new 47	\DTMenAUdowdaysep: new 40
\DTMenAUdstzonemaps: new 46	\DTMenGBdowdaysep: new 19
\DTMenAUeasternzonemaps: new . 46	\DTMenGGdowdaysep: new 53
\DTMenAUlordhowezonemaps: new 46	\DTMenIEdowdaysep: new 72
\DTMenAUnorfolkzonemaps: new . 47	\DTMenIMdowdaysep: new 62
\DTMenAUstdzonemaps: new 45	\DTMenJEdowdaysep: new 57
\DTMenAUwesternzonemaps: new . 46	\DTMenMTdowdaysep: new 67
\DTMenCAatlanticzonemaps: new 38	\DTMenNZdowdaysep: new 48
•	• •
Index	
Α	cocos 10
abbr 5, 7	D
alaska 8	D
aleutian 8	datesep 5, 6
atlantic 7, 9	datetimesep
<u></u>	daylight
C	daymonthsep 5
central	dayyearsep
central-western 10	dowdaysep 5
chamorro 8	dowmonthsep 6
christmas 10	dst
clear 8-10	$\DTMenAUcentralwesternzonemaps$. 46

\DTMenAUcentralzonemaps	46	\DTMenGGtimesep	53
\DTMenAUchrismaszonemaps	46	\DTMenGGtimezonesep	53
\DTMenAUcocoszonemaps	47	\DTMenGGzonemaps	56
\DTMenAUdatesep	40	\DTMenglisham	15
\DTMenAUdatetimesep	40	\DTMenglishampmfmt	16
\DTMenAUdaymonthsep	40	\DTMenglishfmtordsuffix	13
\DTMenAUdowdaysep	40	\DTMenglishmidnight	16
\DTMenAUdstzonemaps	46	\DTMenglishmonthname	13
\DTMenAUeasternzonemaps	46	\DTMenglishnd	13
\DTMenAUfmtordsuffix	41	\DTMenglishnoon	16
\DTMenAUlordhowezonemaps	46	\DTMenglishordinal	12
\DTMenAUmonthyearsep	40	\DTMenglishpm	15
\DTMenAUnorfolkzonemaps	47	\DTMenglishrd	13
\DTMenAUstdzonemaps	45	\DTMenglishshortmonthname	14
\DTMenAUtimesep	40	\DTMenglishst	13
\DTMenAUtimezonesep	40	\DTMenglishth	13
\DTMenAUwesternzonemaps	46	\DTMenglishtimesep	16
\DTMenAUzonemaps	45	\DTMenglishweekdayname	15
\DTMenCAatlanticzonemaps	38	\DTMenIEdatesep	73
\DTMenCAcentralzonemaps	39	\DTMenIEdatetimesep	72
\DTMenCAdatesep	33	\DTMenIEdaymonthsep	72
\DTMenCAdatetimesep	33	\DTMenIEdowdaysep	72
\DTMenCAdayyearsep	33	\DTMenIEfmtordsuffix	73
\DTMenCAdowmonthsep	32	\DTMenIEmonthyearsep	72
\DTMenCAdstzonemaps	38	\DTMenIEtimesep	73
\DTMenCAeasternzonemaps	39	\DTMenIEtimezonesep	72
\DTMenCAfmtordsuffix	34	\DTMenIEzonemaps	76
\DTMenCAmonthdaysep	32	\DTMenIMdatesep	63
\DTMenCAmountainzonemaps	39	\DTMenIMdatetimesep	63
\DTMenCAnewfoundlandzonemaps	38	\DTMenIMdaymonthsep	62
\DTMenCApacificzonemaps	39	\DTMenIMdowdaysep	62
\DTMenCAstdzonemaps	38	\DTMenIMfmtordsuffix	64
\DTMenCAtimesep	33	\DTMenIMmonthyearsep	62
\DTMenCAtimezonesep	33	\DTMenIMtimesep	63
\DTMenCAzonemaps	38	\DTMenIMtimezonesep	63
\DTMenGBdatesep	19	\DTMenIMzonemaps	66
\DTMenGBdatetimesep	19	\DTMenJEdatesep	58
\DTMenGBdaymonthsep	19	\DTMenJEdatetimesep	58
\DTMenGBdowdaysep	19	\DTMenJEdaymonthsep	57
\DTMenGBfmtordsuffix	20	\DTMenJEdowdaysep	57
\DTMenGBmonthyearsep	19	\DTMenJEfmtordsuffix	59
\DTMenGBtimesep	19	\DTMenJEmonthyearsep	58
\DTMenGBtimezonesep	19	\DTMenJEtimesep	58
\DTMenGBzonemaps	23	\DTMenJEtimezonesep	58
\DTMenGGdatesep	53	\DTMenJEzonemaps	61
\DTMenGGdatetimesep	53	\DTMenMTdatesep	68
\DTMenGGdaymonthsep	53	\DTMenMTdatetimesep	67
\DTMenGGdowdaysep	53	\DTMenMTdaymonthsep	67
\DTMenGGfmtordsuffix	54	\DTMenMTdowdaysep	67
\DTMenGGmonthyearsep	53	\DTMenMTfmtordsuffix	68

\DTMenMTmonthyearsep 67	L
\DTMenMTtimesep 68	lord-howe 10
\DTMenMTtimezonesep 68	
\DTMenMTzonemaps 71	${f M}$
\DTMenNZdatesep 48	mapzone 5-8
\DTMenNZdatetimesep 48	monthdaysep 6
\DTMenNZdaymonthsep 48	monthyearsep 5
\DTMenNZdowdaysep 48	mountain 8, 9
\DTMenNZfmtordsuffix 49	
\DTMenNZmonthyearsep 48	${f N}$
\DTMenNZtimesep 48	newfoundland 9
\DTMenNZtimezonesep 48	norfolk 10
\DTMenNZzonemaps 51	
\DTMenUSalaskazonemaps 31	O
\DTMenUSatlanticzonemaps 30	ord 5, 7, 10, 11
\DTMenUScentralzonemaps 31	, , ,
\DTMenUSchamorrozonemaps 31	P
\DTMenUSdatesep 24	pacific
\DTMenUSdatetimesep 24	, , ,
\DTMenUSdayyearsep 24	S
\DTMenUSdowmonthsep 24	samoa 8
\DTMenUSdstzonemaps 30	showdate 4
\DTMenUSeasternzonemaps 31	
\DTMenUSfmtordsuffix 25	showdayofmonth
$\DTMenUShawaiialeutianzonemaps$. 31	showdow 4-6, 17, 27, 35
\DTMenUSmonthdaysep 24	showisoZ 4, 6, 8
\DTMenUSmountainzonemaps 31	showseconds 4
\DTMenUSpacificzonemaps 31	showyear 6, 7
\DTMenUSsamoazonemaps 31	showzone 4
\DTMenUSstdzonemaps 30	showzoneminutes $\dots 4, 6, 8$
\DTMenUStimesep 24	standard
\DTMenUStimezonesep 24	std
\DTMenUSzonemaps 30	
-	${f T}$
${f E}$	timesep $5, 7$
eastern	$\verb timezonesep 5, 7$
T.	
F	${f U}$
false 5	useregional $\dots 1, 3-5, 18,$
Н	23, 32, 39, 47, 52, 57, 61, 66, 71, 76
hawaii 8	
hawaii-aleutian 8	\mathbf{W}
hourminsep 4	western 10
nourmingeh 4	
K	${f z}$
keeling 10	zone
3	, . ,