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

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 `\dateenglish` or `\date`⟨*dialect*⟩ (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 superscript[1]), `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.

[1] Just 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

```
\ProvidesDateTimeModule{english-base}[2019/10/21 v1.05 (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`

```
\newcommand*{\DTMenglishordinal}[1]{%
  \number#1 % space intended
  \DTMenglishfmtordsuffix{%
    \ifcase#1
    \or \DTMenglishst
    \or \DTMenglishnd
    \or \DTMenglishrd
    \or \DTMenglishth
    \or \DTMenglishth
    \or \DTMenglishth
    \or \DTMenglishth
    \or \DTMenglishth
    \or \DTMenglishth
    \or \DTMenglishth
    \or \DTMenglishth
    \or \DTMenglishth
    \or \DTMenglishth
```

```
    \or \DTMenglishth
    \or \DTMenglishth
    \or \DTMenglishth
    \or \DTMenglishth
    \or \DTMenglishth
    \or \DTMenglishth
    \or \DTMenglishth
    \or \DTMenglishst
    \or \DTMenglishnd
    \or \DTMenglishrd
    \or \DTMenglishth
    \or \DTMenglishth
    \or \DTMenglishth
    \or \DTMenglishth
    \or \DTMenglishth
    \or \DTMenglishth
    \or \DTMenglishth
    \or \DTMenglishst
    \fi
  }%
}
```

Just in case a user has some need to change the ordinal suffixes, these are provided as commands.

`\DTMenglishst`

```
\newcommand*{\DTMenglishst}{st}
```

`\DTMenglishnd`

```
\newcommand*{\DTMenglishnd}{nd}
```

`\DTMenglishrd`

```
\newcommand*{\DTMenglishrd}{rd}
```

`\DTMenglishth`

```
\newcommand*{\DTMenglishth}{th}
```

`\DTMenglishfmtordsuffix` The suffix can have a format applied to it (for example, made a superscript or converted 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.

```
\newcommand*{\DTMenglishfmtordsuffix}[1]{}
```

`\DTMenglishmonthname` English month names.

```
\newcommand*{\DTMenglishmonthname}[1]{%
  \ifcase#1
  \or
  January%
  \or
  February%
```

```
  \or
  March%
  \or
  April%
  \or
  May%
  \or
  June%
  \or
  July%
  \or
  August%
  \or
  September%
  \or
  October%
  \or
  November%
  \or
  December%
  \fi
}
```

\DTMenglishshortmonthname Abbreviated English month names.

```
\newcommand*{\DTMenglishshortmonthname}[1]{%
  \ifcase#1
  \or
  Jan%
  \or
  Feb%
  \or
  Mar%
  \or
  Apr%
  \or
  May%
  \or
  Jun%
  \or
  Jul%
  \or
  Aug%
  \or
  Sep%
  \or
  Oct%
  \or
  Nov%
  \or
  Dec%
```

```
  \fi
}
```

\DTMenglishweekdayname English day of week names.

```
\newcommand*{\DTMenglishweekdayname}[1]{%
  \ifcase#1
  Monday%
  \or
  Tuesday%
  \or
  Wednesday%
  \or
  Thursday%
  \or
  Friday%
  \or
  Saturday%
  \or
  Sunday%
  \fi
}
```

\DTMenglishweekdayname English abbreviated day of week names.

```
\newcommand*{\DTMenglishshortweekdayname}[1]{%
  \ifcase#1
  Mon%
  \or
  Tue%
  \or
  Wed%
  \or
  Thu%
  \or
  Fri%
  \or
  Sat%
  \or
  Sun%
  \fi
}
```

12 hour time tags.

\DTMenglisham

```
\newcommand*\DTMenglisham{am}%
```

\DTMenglishpm

```
\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  {%
144     \renewcommand*\DTMdisplaytime[3]{%
145       \ifnum##2=0
146         \ifnum##1=12
147           \DTMtexorpdfstring
148             {\DTMenglishampmfmt{\DTMenglishnoon}}%
149             {\DTMenglishnoon}%
150         \else
151           \ifnum##1=0
152             \DTMtexorpdfstring
153             {\DTMenglishampmfmt{\DTMenglishmidnight}}%
154             {\DTMenglishmidnight}%
155           \else
156             \ifnum##1=24
157               \DTMtexorpdfstring
158               {\DTMenglishampmfmt{\DTMenglishmidnight}}%
159               {\DTMenglishmidnight}%
160             \else
161               \ifnum##1<12
162                 \number##1
163                 \DTMtexorpdfstring
164                 {\DTMenglishampmfmt{\DTMenglisham}}%
165                 {\DTMenglisham}%
166               \else
167                 \number\numexpr##1-12\relax
168                 \DTMtexorpdfstring
169                 {\DTMenglishampmfmt{\DTMenglishpm}}%
170                 {\DTMenglishpm}%
171               \fi
172             \fi
173           \fi
174         \fi
```

```
      \else
        \ifnum##1<13
          \ifnum##1=0
            12%
          \else
            \number##1
          \fi
          \DTMenglishtimesep\DTMtwodigits{##2}%
          \ifnum##1=12
```

v1.03 bug fixed replaced \DTMenglisham with \DTMenglishpm

```
            \DTMtexorpdfstring
            {\DTMenglishampmfmt{\DTMenglishpm}}%
            {\DTMenglishpm}%
          \else
            \DTMtexorpdfstring
            {\DTMenglishampmfmt{\DTMenglisham}}%
            {\DTMenglisham}%
          \fi
        \else
          \number\numexpr##1-12\relax
          \DTMenglishtimesep\DTMtwodigits{##2}%
          \ifnum##1=24
```

v1.03 bug fixed replaced \DTMenglishpm with \DTMenglisham

```
            \DTMtexorpdfstring
            {\DTMenglishampmfmt{\DTMenglisham}}%
            {\DTMenglisham}%
          \else
            \DTMtexorpdfstring
            {\DTMenglishampmfmt{\DTMenglishpm}}%
            {\DTMenglishpm}%
          \fi
        \fi
      \fi
    }%
}%
```

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

```
\ProvidesDateTimeModule{english}[2019/10/21 v1.05 (NLCT)]
```

Load the base English module.

```
\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.

```
\DTMnewstyle
 {english}% label
 {% date style
   \renewcommand*{\DTMenglishfmtordsuffix}[1]{}%
   \renewcommand*\DTMdisplaydate[4]{%
     \DTMenglishmonthname{##2}\space\number##3, \number##1
   }%
   \renewcommand*{\DTMDisplaydate}[4]{\DTMdisplaydate{##1}{##2}{##3}{##4}}%
 }%
 {% time style
   \renewcommand*{\DTMenglishtimesep}{\DTMsep{hourmin}}%
   \DTMsettimestyle{englishampm}%
 }%
 {% zone style
   \DTMsetzonestyle{default}%
 }%
 {% full style
   \renewcommand*{\DTMdisplay}[9]{%
    \ifDTMshowdate
     \DTMdisplaydate{##1}{##2}{##3}{##4}%
     \space
    \fi
    \DTMdisplaytime{##5}{##6}{##7}%
    \ifDTMshowzone
     \space
     \DTMdisplayzone{##8}{##9}%
    \fi
   }%
   \renewcommand*{\DTMDisplay}{\DTMdisplay}%
 }%
```

Switch the style according to the `useregional` setting.

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

```
\ifcsundef{date\CurrentTrackedDialect}
{%
  \ifundef\dateenglish
  {% do nothing
  }%
  {%
    \def\dateenglish{%
      \DTMifcaseregional
      {}% do nothing
```

```
      {\DTMsetstyle{english}}%
      {\DTMsetstyle{default}}%
    }%
  }%
}%
{%
  \csdef{date\CurrentTrackedDialect}{%
    \DTMifcaseregional
    {}% do nothing
    {\DTMsetstyle{english}}%
    {\DTMsetstyle{default}}%
  }%
}%
```

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

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

```
\ProvidesDateTimeModule{en-GB}[2019/10/21 v1.05 (NLCT)]
```

Load base English module.

```
\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.

```
\newcommand*{\DTMenGBdowdaysep}{\space}
```

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

```
\newcommand*{\DTMenGBdaymonthsep}{\space}
```

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

```
\newcommand*{\DTMenGBmonthyearsep}{\space}
```

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

```
\newcommand*{\DTMenGBdatetimesep}{\space}
```

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

```
\newcommand*{\DTMenGBtimezonesep}{\space}
```

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

```
\newcommand*{\DTMenGBdatesep}{/}
```

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

```
\newcommand*{\DTMenGBtimesep}{:}
```

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

```
\DTMdefkey{en-GB}{dowdaysep}{\renewcommand*{\DTMenGBdowdaysep}{#1}}
\DTMdefkey{en-GB}{daymonthsep}{\renewcommand*{\DTMenGBdaymonthsep}{#1}}
\DTMdefkey{en-GB}{monthyearsep}{\renewcommand*{\DTMenGBmonthyearsep}{#1}}
\DTMdefkey{en-GB}{datetimesep}{\renewcommand*{\DTMenGBdatetimesep}{#1}}
\DTMdefkey{en-GB}{timezonesep}{\renewcommand*{\DTMenGBtimezonesep}{#1}}
\DTMdefkey{en-GB}{datesep}{\renewcommand*{\DTMenGBdatesep}{#1}}
\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.

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

The default is the full name.

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

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

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

The default is to use mappings.

```
\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.)

```
\DTMdefboolkey{en-GB}{showdayofmonth}[true]{}
```

The default is to show the day of the month.

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

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

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

The default is to show the year.

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

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

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

Define a setting to change the ordinal suffix style.

```
\DTMdefchoicekey{en-GB}{ord}[\@dtm@val\@dtm@nr]{level,raise,omit,sc}{%
 \ifcase\@dtm@nr\relax
   \renewcommand*{\DTMenGBfmtordsuffix}[1]{##1}%
 \or
   \renewcommand*{\DTMenGBfmtordsuffix}[1]{%
    \DTMtexorpdfstring{\protect\textsuperscript{##1}}{##1}}%
 \or
   \renewcommand*{\DTMenGBfmtordsuffix}[1]{}%
 \or
   \renewcommand*{\DTMenGBfmtordsuffix}[1]{%
    \DTMtexorpdfstring{\protect\textsc{##1}}{##1}}%
```

```
\fi
}
```

Define the en-GB style.

```
\DTMnewstyle
{en-GB}% label
{% date style
  \renewcommand*{\DTMenglishfmtordsuffix}{\DTMenGBfmtordsuffix}%
  \renewcommand*\DTMdisplaydate[4]{%
    \ifDTMshowdow
      \ifnum##4>-1
       \DTMifbool{en-GB}{abbr}%
        {\DTMenglishshortweekdayname{##4}}%
        {\DTMenglishweekdayname{##4}}%
       \DTMenGBdowdaysep
      \fi
    \fi
    \DTMifbool{en-GB}{showdayofmonth}%
    {%
      \DTMenglishordinal{##3}%
      \DTMenGBdaymonthsep
    }%
    {}%
    \DTMifbool{en-GB}{abbr}%
    {\DTMenglishshortmonthname{##2}}%
    {\DTMenglishmonthname{##2}}%
    \DTMifbool{en-GB}{showyear}%
    {%
      \DTMenGBmonthyearsep\number##1 % space intended
    }%
    {}%
  }%
  \renewcommand*{\DTMDisplaydate}[4]{\DTMdisplaydate{##1}{##2}{##3}{##4}}%
}%
{% time style
  \renewcommand*\DTMenglishtimesep{\DTMenGBtimesep}%
  \DTMsettimestyle{englishampm}%
}%
{% zone style
  \DTMresetzones
  \DTMenGBzonemaps
  \renewcommand*{\DTMdisplayzone}[2]{%
    \DTMifbool{en-GB}{mapzone}%
    {\DTMusezonemapordefault{##1}{##2}}%
    {%
      \ifnum##1<0 \else+\fi\DTMtwodigits{##1}%
      \ifDTMshowzoneminutes\DTMenGBtimesep\DTMtwodigits{##2}\fi
    }%
  }%
}%
```

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

Define numeric style.

```
\DTMnewstyle
{en-GB-numeric}% label
{% date style
   \renewcommand*\DTMdisplaydate[4]{%
     \DTMifbool{en-GB}{showdayofmonth}%
     {%
       \number##3 % space intended
       \DTMenGBdatesep
     }%
     {}%
     \number##2 % space intended
     \DTMifbool{en-GB}{showyear}%
     {%
       \DTMenGBdatesep
       \number##1 % space intended
     }%
     {}%
   }%
   \renewcommand*{\DTMDisplaydate}[4]{\DTMdisplaydate{##1}{##2}{##3}{##4}}%
}%
{% time style
   \renewcommand*\DTMdisplaytime[3]{%
     \number##1
     \DTMenGBtimesep\DTMtwodigits{##2}%
     \ifDTMshowseconds\DTMenGBtimesep\DTMtwodigits{##3}\fi
   }%
}%
{% zone style
  \DTMresetzones
  \DTMenGBzonemaps
  \renewcommand*{\DTMdisplayzone}[2]{%
    \DTMifbool{en-GB}{mapzone}%
    {\DTMusezonemapordefault{##1}{##2}}%
    {%
```

```
      \ifnum##1<0 \else+\fi\DTMtwodigits{##1}%
      \ifDTMshowzoneminutes\DTMenGBtimesep\DTMtwodigits{##2}\fi
    }%
  }%
}%
{% full style
  \renewcommand*{\DTMdisplay}[9]{%
   \ifDTMshowdate
    \DTMdisplaydate{##1}{##2}{##3}{##4}%
    \DTMenGBdatetimesep
   \fi
   \DTMdisplaytime{##5}{##6}{##7}%
   \ifDTMshowzone
    \DTMenGBtimezonesep
    \DTMdisplayzone{##8}{##9}%
   \fi
  }%
  \renewcommand*{\DTMDisplay}{\DTMdisplay}%
}
```

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

```
\newcommand*{\DTMenGBzonemaps}{%
  \DTMdefzonemap{00}{00}{GMT}%
  \DTMdefzonemap{01}{00}{BST}%
}
```

Switch style according to the `useregional` setting.

```
\DTMifcaseregional
{}% do nothing
{\DTMsetstyle{en-GB}}%
{\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.)

```
\ifcsundef{date\CurrentTrackedDialect}
{% do nothing
  \ifundef\dateenglish
  {%
  }%
  {%
    \def\dateenglish{%
      \DTMifcaseregional
      {}% do nothing
      {\DTMsetstyle{en-GB}}%
      {\DTMsetstyle{en-GB-numeric}}%
    }%
  }%
}%
{%
```

```
  \csdef{date\CurrentTrackedDialect}{%
    \DTMifcaseregional
    {}% do nothing
    {\DTMsetstyle{en-GB}}%
    {\DTMsetstyle{en-GB-numeric}}%
  }%
}%
```

14.4 English (US) Code (datetime2-en-US.ldf)

This file contains the US English style.

Identify this module.

```
\ProvidesDateTimeModule{en-US}[2019/10/21 v1.05 (NLCT)]
```

Load base English module.

```
\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.

```
\newcommand*{\DTMenUSmonthdaysep}{\space}
```

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

```
\newcommand*{\DTMenUSdowmonthsep}{\space}
```

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

```
\newcommand*{\DTMenUSdayyearsep}{,\space}
```

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

```
\newcommand*{\DTMenUSdatetimesep}{\space}
```

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

```
\newcommand*{\DTMenUStimezonesep}{\space}
```

\DTMenUSdatesep The separator for the numeric date format.

```
\newcommand*{\DTMenUSdatesep}{/}
```

\DTMenUStimesep The separator for the numeric time format.

```
\newcommand*{\DTMenUStimesep}{:}
```

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

```
\DTMdefkey{en-US}{monthdaysep}{\renewcommand*{\DTMenUSmonthdaysep}{#1}}
\DTMdefkey{en-US}{dowmonthsep}{\renewcommand*{\DTMenUSdowmonthsep}{#1}}
\DTMdefkey{en-US}{dayyearsep}{\renewcommand*{\DTMenUSdayyearsep}{#1}}
```

```
\DTMdefkey{en-US}{datetimesep}{\renewcommand*{\DTMenUSdatetimesep}{#1}}
\DTMdefkey{en-US}{timezonesep}{\renewcommand*{\DTMenUStimezonesep}{#1}}
\DTMdefkey{en-US}{datesep}{\renewcommand*{\DTMenUSdatesep}{#1}}
\DTMdefkey{en-US}{timesep}{\renewcommand*{\DTMenUStimesep}{#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.

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

The default is the full name.

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

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

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

The default is no mappings.

```
\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.)

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

The default is to show the day of the month.

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

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

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

The default is to show the year.

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

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

```
\newcommand*{\DTMenUSfmtordsuffix}[1]{}
```

Define a setting to change the ordinal suffix style.

```
\DTMdefchoicekey{en-US}{ord}[\@dtm@val\@dtm@nr]{level,raise,omit,sc}{%
 \ifcase\@dtm@nr\relax
   \renewcommand*{\DTMenUSfmtordsuffix}[1]{##1}%
 \or
   \renewcommand*{\DTMenUSfmtordsuffix}[1]{%
    \DTMtexorpdfstring{\protect\textsuperscript{##1}}{##1}}%
 \or
   \renewcommand*{\DTMenUSfmtordsuffix}[1]{}%
 \or
   \renewcommand*{\DTMenUSfmtordsuffix}[1]{%
    \DTMtexorpdfstring{\protect\textsc{##1}}{##1}}%
 \fi
}
```

Define a setting to change zone mappings.

```
\DTMdefchoicekey{en-US}{zone}[\@dtm@val\@dtm@nr]%
 {std,standard,dst,daylight,atlantic,eastern,central,mountain,%
  pacific,alaska,hawaii-aleutian,hawaii,aleutian,samoa,charmorro,clear}%
{%
 \ifcase\@dtm@nr\relax
  % std
   \appto\DTMenUSzonemaps{\DTMenUSstdzonemaps}%
   \DTMenUSstdzonemaps
 \or
  % standard
   \appto\DTMenUSzonemaps{\DTMenUSstdzonemaps}%
   \DTMenUSstdzonemaps
 \or
  % dst
   \appto\DTMenUSzonemaps{\DTMenUSdstzonemaps}%
   \DTMenUSdstzonemaps
 \or
  % daylight
   \appto\DTMenUSzonemaps{\DTMenUSdstzonemaps}%
   \DTMenUSdstzonemaps
 \or
  % atlantic
   \appto\DTMenUSzonemaps{\DTMenUSatlanticzonemaps}%
   \DTMenUSatlanticzonemaps
 \or
  % eastern
   \appto\DTMenUSzonemaps{\DTMenUSeasternzonemaps}%
   \DTMenUSeasternzonemaps
 \or
  % central
   \appto\DTMenUSzonemaps{\DTMenUScentralzonemaps}%
   \DTMenUScentralzonemaps
 \or
  % mountain
   \appto\DTMenUSzonemaps{\DTMenUSmountainzonemaps}%
   \DTMenUSmountainzonemaps
 \or
  % pacific
   \appto\DTMenUSzonemaps{\DTMenUSpacificzonemaps}%
   \DTMenUSpacificzonemaps
 \or
  % alaska
   \appto\DTMenUSzonemaps{\DTMenUSalaskazonemaps}%
   \DTMenUSalaskazonemaps
 \or
  % hawaii-aleutian
   \appto\DTMenUSzonemaps{\DTMenUShawaiialeutianzonemaps}%
   \DTMenUShawaiialeutianzonemaps
```

```
\or
 % hawaii
  \appto\DTMenUSzonemaps{\DTMenUShawaiialeutianzonemaps}%
  \DTMenUShawaiialeutianzonemaps
\or
 % aleutian
  \appto\DTMenUSzonemaps{\DTMenUShawaiialeutianzonemaps}%
  \DTMenUShawaiialeutianzonemaps
\or
 % samoa
  \appto\DTMenUSzonemaps{\DTMenUSsamoazonemaps}%
  \DTMenUSsamoazonemaps
\or
 % chamorro
  \appto\DTMenUSzonemaps{\DTMenUSchamorrozonemaps}%
  \DTMenUSchamorrozonemaps
\or
 % clear
  \renewcommand*{\DTMenUSzonemaps}{}%
  \DTMclearmap{-3}{0}%
  \DTMclearmap{-4}{0}%
  \DTMclearmap{-5}{0}%
  \DTMclearmap{-6}{0}%
  \DTMclearmap{-7}{0}%
  \DTMclearmap{-8}{0}%
  \DTMclearmap{-9}{0}%
  \DTMclearmap{-10}{0}%
  \DTMclearmap{-11}{0}%
  \DTMclearmap{10}{0}%
\fi
}
```

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.

```
\DTMnewstyle
 {en-US}% label
 {% date style
   \renewcommand*{\DTMenglishfmtordsuffix}{\DTMenUSfmtordsuffix}%
   \renewcommand*\DTMdisplaydate[4]{%
```

Support for `showdow` added in v1.02 (thanks to Alan Munn).

```
     \ifDTMshowdow
       \ifnum##4>-1 % space intended
        \DTMifbool{en-US}{abbr}%
         {\DTMenglishshortweekdayname{##4}}%
         {\DTMenglishweekdayname{##4}}%
         \DTMenUSdowmonthsep
       \fi
```

```
    \fi
    \DTMifbool{en-US}{abbr}%
    {\DTMenglishshortmonthname{##2}}%
    {\DTMenglishmonthname{##2}}%
    \DTMifbool{en-US}{showdayofmonth}%
    {%
      \DTMenUSmonthdaysep
      \DTMenglishordinal{##3}%
      \DTMifbool{en-US}{showyear}%
      {%
        \DTMenUSdayyearsep
        \number##1 % space intended
      }%
      {}%
    }%
    {%
      \DTMifbool{en-US}{showyear}%
      {%
        \DTMenUSmonthdaysep
        \number##1 % space intended
      }%
      {}%
    }%
  }%
  \renewcommand*{\DTMDisplaydate}[4]{\DTMdisplaydate{##1}{##2}{##3}{##4}}%
}%
{% time style
  \renewcommand*\DTMenglishtimesep{\DTMenUStimesep}%
  \DTMsettimestyle{englishampm}%
}%
{% zone style
  \DTMresetzones
  \DTMenUSzonemaps
  \renewcommand*{\DTMdisplayzone}[2]{%
    \DTMifbool{en-US}{mapzone}%
    {\DTMusezonemapordefault{##1}{##2}}%
    {%
      \ifnum##1<0 \else+\fi\DTMtwodigits{##1}%
      \ifDTMshowzoneminutes\DTMenUStimesep\DTMtwodigits{##2}\fi
    }%
  }%
}%
{% full style
  \renewcommand*{\DTMdisplay}[9]{%
   \ifDTMshowdate
    \DTMdisplaydate{##1}{##2}{##3}{##4}%
    \DTMenUSdatetimesep
   \fi
   \DTMdisplaytime{##5}{##6}{##7}%
   \ifDTMshowzone
```

```
    \DTMenUStimezonesep
    \DTMdisplayzone{##8}{##9}%
   \fi
  }%
  \renewcommand*{\DTMDisplay}{\DTMdisplay}%
}%
```

Define numeric style.

```
\DTMnewstyle
{en-US-numeric}% label
{% date style
   \renewcommand*\DTMdisplaydate[4]{%
     \number##2 % space intended
     \DTMifbool{en-US}{showdayofmonth}%
     {%
       \DTMenUSdatesep
       \number##3 % space intended
     }%
     {}%
     \DTMifbool{en-US}{showyear}%
     {%
       \DTMenUSdatesep
       \number##1 % space intended
     }%
     {}%
   }%
   \renewcommand*{\DTMDisplaydate}[4]{\DTMdisplaydate{##1}{##2}{##3}{##4}}%
}%
{% time style
   \renewcommand*\DTMdisplaytime[3]{%
     \number##1
     \DTMenUStimesep\DTMtwodigits{##2}%
     \ifDTMshowseconds\DTMenUStimesep\DTMtwodigits{##3}\fi
   }%
}%
{% zone style
  \DTMresetzones
  \DTMenUSzonemaps
  \renewcommand*{\DTMdisplayzone}[2]{%
    \DTMifbool{en-US}{mapzone}%
    {\DTMusezonemapordefault{##1}{##2}}%
    {%
      \ifnum##1<0 \else+\fi\DTMtwodigits{##1}%
      \ifDTMshowzoneminutes\DTMenUStimesep\DTMtwodigits{##2}\fi
    }%
  }%
}%
{% full style
  \renewcommand*{\DTMdisplay}[9]{%
   \ifDTMshowdate
```

```
      \DTMdisplaydate{##1}{##2}{##3}{##4}%
      \DTMenUSdatetimesep
    \fi
    \DTMdisplaytime{##5}{##6}{##7}%
    \ifDTMshowzone
      \DTMenUStimezonesep
      \DTMdisplayzone{##8}{##9}%
    \fi
   }%
   \renewcommand*{\DTMDisplay}{\DTMdisplay}%
 }
```

`\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.)

```
\newcommand*{\DTMenUSzonemaps}{%
  \DTMdefzonemap{-3}{00}{ADT}%
  \DTMdefzonemap{-4}{00}{AST}%
  \DTMdefzonemap{-5}{00}{EST}%
  \DTMdefzonemap{-6}{00}{CST}%
  \DTMdefzonemap{-7}{00}{MST}%
  \DTMdefzonemap{-8}{00}{PST}%
}
```

`\DTMenUSstdzonemaps` Just the standard time zone mappings.

```
\newcommand*{\DTMenUSstdzonemaps}{%
  \DTMdefzonemap{-4}{00}{AST}%
  \DTMdefzonemap{-5}{00}{EST}%
  \DTMdefzonemap{-6}{00}{CST}%
  \DTMdefzonemap{-7}{00}{MST}%
  \DTMdefzonemap{-8}{00}{PST}%
  \DTMdefzonemap{-9}{00}{AKST}%
  \DTMdefzonemap{-10}{00}{HAST}%
  \DTMdefzonemap{-11}{00}{SST}%
  \DTMdefzonemap{10}{00}{ChST}%
}
```

`\DTMenUSdstzonemaps` Just daylight saving mappings.

```
\newcommand*{\DTMenUSdstzonemaps}{%
  \DTMdefzonemap{-3}{00}{ADT}%
  \DTMdefzonemap{-4}{00}{EDT}%
  \DTMdefzonemap{-5}{00}{CDT}%
  \DTMdefzonemap{-6}{00}{MDT}%
  \DTMdefzonemap{-7}{00}{PDT}%
  \DTMdefzonemap{-8}{00}{AKDT}%
  \DTMdefzonemap{-9}{00}{HADT}%
}
```

`\DTMenUSatlanticzonemaps` Just the Atlantic zone mappings (AST and ADT).

```
\newcommand*{\DTMenUSatlanticzonemaps}{%
  \DTMdefzonemap{-4}{00}{AST}%
  \DTMdefzonemap{-3}{00}{ADT}%
}
```

`\DTMenUSeasternzonemaps` Just the Eastern zone mappings (EST and EDT).

```
\newcommand*{\DTMenUSeasternzonemaps}{%
  \DTMdefzonemap{-5}{00}{EST}%
  \DTMdefzonemap{-4}{00}{EDT}%
}
```

`\DTMenUScentralzonemaps` Just the Central zone mappings (CST and CDT).

```
\newcommand*{\DTMenUScentralzonemaps}{%
  \DTMdefzonemap{-6}{00}{CST}%
  \DTMdefzonemap{-5}{00}{CDT}%
}
```

`\DTMenUSmountainzonemaps` Just the Mountain zone mappings (MST and MDT).

```
\newcommand*{\DTMenUSmountainzonemaps}{%
  \DTMdefzonemap{-7}{00}{MST}%
  \DTMdefzonemap{-6}{00}{MDT}%
}
```

`\DTMenUSpacificzonemaps` Just the Pacific zone mappings (PST and PDT).

```
\newcommand*{\DTMenUSpacificzonemaps}{%
  \DTMdefzonemap{-8}{00}{PST}%
  \DTMdefzonemap{-7}{00}{PDT}%
}
```

`\DTMenUSalaskazonemaps` Just the Alaska zone mappings (AKST and AKDT).

```
\newcommand*{\DTMenUSalaskazonemaps}{%
  \DTMdefzonemap{-9}{00}{AKST}%
  \DTMdefzonemap{-8}{00}{AKDT}%
}
```

`\DTMenUShawaiialeutianzonemaps` Just the Hawaii-Aleutian zone mappings (HAST and HADT).

```
\newcommand*{\DTMenUShawaiialeutianzonemaps}{%
  \DTMdefzonemap{-10}{00}{HAST}%
  \DTMdefzonemap{-9}{00}{HADT}%
}
```

`\DTMenUSsamoazonemaps` Just the Samoa standard time (SST).

```
\newcommand*{\DTMenUSsamoazonemaps}{%
  \DTMdefzonemap{-11}{00}{SST}%
}
```

`\DTMenUSchamorrozonemaps` Just the Chamorro standard time (ChST).

```
\newcommand*{\DTMenUSchamorrozonemaps}{%
  \DTMdefzonemap{10}{00}{ChST}%
}
```

Switch style according to the `useregional` setting.

```
\DTMifcaseregional
{}% do nothing
{\DTMsetstyle{en-US}}%
{\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.)

```
\ifcsundef{date\CurrentTrackedDialect}
{% do nothing
  \ifundef\dateenglish
  {%
  }%
  {%
    \def\dateenglish{%
      \DTMifcaseregional
      {}% do nothing
      {\DTMsetstyle{en-US}}%
      {\DTMsetstyle{en-US-numeric}}%
    }%
  }%
}%
{%
  \csdef{date\CurrentTrackedDialect}{%
    \DTMifcaseregional
    {}% do nothing
    {\DTMsetstyle{en-US}}%
    {\DTMsetstyle{en-US-numeric}}%
  }%
}%
```

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.

```
\ProvidesDateTimeModule{en-CA}[2019/10/21 v1.05 (NLCT)]
```

Load base English module.

```
\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.

```
\newcommand*{\DTMenCAmonthdaysep}{\space}
```

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

```
\newcommand*{\DTMenCAdowmonthsep}{\space}
```

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

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

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

```
\newcommand*{\DTMenCAdatetimesep}{\space}
```

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

```
\newcommand*{\DTMenCAtimezonesep}{\space}
```

\DTMenCAdatesep The separator for the numeric date format.

```
\newcommand*{\DTMenCAdatesep}{/}
```

\DTMenCAtimesep The separator for the numeric time format.

```
\newcommand*{\DTMenCAtimesep}{:}
```

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

```
\DTMdefkey{en-CA}{monthdaysep}{\renewcommand*{\DTMenCAmonthdaysep}{#1}}
\DTMdefkey{en-CA}{dowmonthsep}{\renewcommand*{\DTMenCAdowmonthsep}{#1}}
\DTMdefkey{en-CA}{dayyearsep}{\renewcommand*{\DTMenCAdayyearsep}{#1}}
\DTMdefkey{en-CA}{datetimesep}{\renewcommand*{\DTMenCAdatetimesep}{#1}}
\DTMdefkey{en-CA}{timezonesep}{\renewcommand*{\DTMenCAtimezonesep}{#1}}
\DTMdefkey{en-CA}{datesep}{\renewcommand*{\DTMenCAdatesep}{#1}}
\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.

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

The default is the full name.

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

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

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

The default is no mappings.

```
\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.)

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

The default is to show the day of the month.

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

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

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

The default is to show the year.

```
\DTMsetbool{en-CA}{showyear}{true}
```

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

```
\newcommand*{\DTMenCAfmtordsuffix}[1]{}
```

Define a setting to change the ordinal suffix style.

```
\DTMdefchoicekey{en-CA}{ord}[\@dtm@val\@dtm@nr]{level,raise,omit,sc}{%
 \ifcase\@dtm@nr\relax
   \renewcommand*{\DTMenCAfmtordsuffix}[1]{##1}%
 \or
   \renewcommand*{\DTMenCAfmtordsuffix}[1]{%
    \DTMtexorpdfstring{\protect\textsuperscript{##1}}{##1}}%
 \or
   \renewcommand*{\DTMenCAfmtordsuffix}[1]{}%
 \or
   \renewcommand*{\DTMenCAfmtordsuffix}[1]{%
    \DTMtexorpdfstring{\protect\textsc{##1}}{##1}}%
 \fi
}
```

Define a setting to change zone mappings.

```
\DTMdefchoicekey{en-CA}{zone}[\@dtm@val\@dtm@nr]%
 {std,standard,dst,daylight,newfoundland,atlantic,eastern,central,mountain,%
  pacific,clear}%
{%
 \ifcase\@dtm@nr\relax
  % std
   \appto\DTMenCAzonemaps{\DTMenCAstdzonemaps}%
   \DTMenCAstdzonemaps
 \or
  % standard
   \appto\DTMenCAzonemaps{\DTMenCAstdzonemaps}%
   \DTMenCAstdzonemaps
 \or
  % dst
   \appto\DTMenCAzonemaps{\DTMenCAdstzonemaps}%
   \DTMenCAdstzonemaps
 \or
  % daylight
   \appto\DTMenCAzonemaps{\DTMenCAdstzonemaps}%
   \DTMenCAdstzonemaps
 \or
  % newfoundland
   \appto\DTMenCAzonemaps{\DTMenCAnewfoundlandzonemaps}%
   \DTMenCAnewfoundlandzonemaps
 \or
  % atlantic
   \appto\DTMenCAzonemaps{\DTMenCAatlanticzonemaps}%
   \DTMenCAatlanticzonemaps
```

```
\or
 % eastern
  \appto\DTMenCAzonemaps{\DTMenCAeasternzonemaps}%
  \DTMenCAeasternzonemaps
\or
 % central
  \appto\DTMenCAzonemaps{\DTMenCAcentralzonemaps}%
  \DTMenCAcentralzonemaps
\or
 % mountain
  \appto\DTMenCAzonemaps{\DTMenCAmountainzonemaps}%
  \DTMenCAmountainzonemaps
\or
 % pacific
  \appto\DTMenCAzonemaps{\DTMenCApacificzonemaps}%
  \DTMenCApacificzonemaps
\or
 % clear
  \renewcommand*{\DTMenCAzonemaps}{}%
  \DTMclearmap{-2}{30}%
  \DTMclearmap{-3}{30}%
  \DTMclearmap{-3}{0}%
  \DTMclearmap{-4}{0}%
  \DTMclearmap{-5}{0}%
  \DTMclearmap{-6}{0}%
  \DTMclearmap{-7}{0}%
  \DTMclearmap{-8}{0}%
\fi
}
```

Define the `en-CA` style (similar to `en-US`).

```
\DTMnewstyle
 {en-CA}% label
 {% date style
  \renewcommand*{\DTMenglishfmtordsuffix}{\DTMenCAfmtordsuffix}%
  \renewcommand*\DTMdisplaydate[4]{%
```

Support for `showdow` added in v1.02 (thanks to Alan Munn).

```
    \ifDTMshowdow
      \ifnum##4>-1 % space intended
       \DTMifbool{en-CA}{abbr}%
        {\DTMenglishshortweekdayname{##4}}%
        {\DTMenglishweekdayname{##4}}%
        \DTMenCAdowmonthsep
      \fi
    \fi
    \DTMifbool{en-CA}{abbr}%
    {\DTMenglishshortmonthname{##2}}%
    {\DTMenglishmonthname{##2}}%
    \DTMifbool{en-CA}{showdayofmonth}%
    {%
```

```
      \DTMenCAmonthdaysep
      \DTMenglishordinal{##3}%
      \DTMifbool{en-CA}{showyear}%
      {%
        \DTMenCAdayyearsep
        \number##1 % intended
      }%
      {}%
    }%
    {%
      \DTMifbool{en-CA}{showyear}%
      {%
        \DTMenCAmonthdaysep
        \number##1 % intended
      }%
      {}%
    }%
  }%
  \renewcommand*{\DTMDisplaydate}[4]{\DTMdisplaydate{##1}{##2}{##3}{##4}}%
}%
{% time style
  \renewcommand*\DTMenglishtimesep{\DTMenCAtimesep}%
  \DTMsettimestyle{englishampm}%
}%
{% zone style
  \DTMresetzones
  \DTMenCAzonemaps
  \renewcommand*{\DTMdisplayzone}[2]{%
    \DTMifbool{en-CA}{mapzone}%
    {\DTMusezonemapordefault{##1}{##2}}%
    {%
      \ifnum##1<0 \else+\fi\DTMtwodigits{##1}%
      \ifDTMshowzoneminutes\DTMenCAtimesep\DTMtwodigits{##2}\fi
    }%
  }%
}%
{% full style
  \renewcommand*{\DTMdisplay}[9]{%
   \ifDTMshowdate
    \DTMdisplaydate{##1}{##2}{##3}{##4}%
    \DTMenCAdatetimesep
   \fi
   \DTMdisplaytime{##5}{##6}{##7}%
   \ifDTMshowzone
    \DTMenCAtimezonesep
    \DTMdisplayzone{##8}{##9}%
   \fi
  }%
  \renewcommand*{\DTMDisplay}{\DTMdisplay}%
}%
```

Define numeric style.

```
\DTMnewstyle
 {en-CA-numeric}% label
 {% date style
    \renewcommand*\DTMdisplaydate[4]{%
      \number##2 % space intended
      \DTMifbool{en-CA}{showdayofmonth}%
      {%
        \DTMenCAdatesep
        \number##3 % space intended
      }%
      {}%
      \DTMifbool{en-CA}{showyear}%
      {%
        \DTMenCAdatesep
        \number##1 % space intended
      }%
      {}%
    }%
    \renewcommand*{\DTMDisplaydate}[4]{\DTMdisplaydate{##1}{##2}{##3}{##4}}%
 }%
 {% time style
    \renewcommand*\DTMdisplaytime[3]{%
      \number##1
      \DTMenCAtimesep\DTMtwodigits{##2}%
      \ifDTMshowseconds\DTMenCAtimesep\DTMtwodigits{##3}\fi
    }%
 }%
 {% zone style
   \DTMresetzones
   \DTMenCAzonemaps
   \renewcommand*{\DTMdisplayzone}[2]{%
     \DTMifbool{en-CA}{mapzone}%
     {\DTMusezonemapordefault{##1}{##2}}%
     {%
       \ifnum##1<0 \else+\fi\DTMtwodigits{##1}%
       \ifDTMshowzoneminutes\DTMenCAtimesep\DTMtwodigits{##2}\fi
     }%
   }%
 }%
 {% full style
   \renewcommand*{\DTMdisplay}[9]{%
    \ifDTMshowdate
     \DTMdisplaydate{##1}{##2}{##3}{##4}%
     \DTMenCAdatetimesep
    \fi
    \DTMdisplaytime{##5}{##6}{##7}%
    \ifDTMshowzone
     \DTMenCAtimezonesep
```

```
      \DTMdisplayzone{##8}{##9}%
    \fi
  }%
  \renewcommand*{\DTMDisplay}{\DTMdisplay}%
}
```

`\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.)

```
\newcommand*{\DTMenCAzonemaps}{%
  \DTMdefzonemap{-2}{30}{NDT}%
  \DTMdefzonemap{-3}{30}{NST}%
  \DTMdefzonemap{-4}{00}{AST}%
  \DTMdefzonemap{-5}{00}{EST}%
  \DTMdefzonemap{-6}{00}{CST}%
  \DTMdefzonemap{-7}{00}{MST}%
  \DTMdefzonemap{-8}{00}{PST}%
}
```

`\DTMenCAstdzonemaps` Just the standard time zone mappings.

```
\newcommand*{\DTMenCAstdzonemaps}{%
  \DTMdefzonemap{-3}{30}{NST}%
  \DTMdefzonemap{-4}{00}{AST}%
  \DTMdefzonemap{-5}{00}{EST}%
  \DTMdefzonemap{-6}{00}{CST}%
  \DTMdefzonemap{-7}{00}{MST}%
  \DTMdefzonemap{-8}{00}{PST}%
}
```

`\DTMenCAdstzonemaps` Just daylight saving mappings.

```
\newcommand*{\DTMenCAdstzonemaps}{%
  \DTMdefzonemap{-2}{30}{NDT}%
  \DTMdefzonemap{-3}{00}{ADT}%
  \DTMdefzonemap{-4}{00}{EDT}%
  \DTMdefzonemap{-5}{00}{CDT}%
  \DTMdefzonemap{-6}{00}{MDT}%
  \DTMdefzonemap{-7}{00}{PDT}%
}
```

`\DTMenCAnewfoundlandzonemaps` Just the Newfoundland zone mappings (NST and NDT).

```
\newcommand*{\DTMenCAnewfoundlandzonemaps}{%
  \DTMdefzonemap{-3}{30}{NST}%
  \DTMdefzonemap{-2}{30}{NDT}%
}
```

`\DTMenCAatlanticzonemaps` Just the Atlantic zone mappings (AST and ADT).

```
\newcommand*{\DTMenCAatlanticzonemaps}{%
  \DTMdefzonemap{-4}{00}{AST}%
  \DTMdefzonemap{-3}{00}{ADT}%
}
```

\DTMenCAeasternzonemaps Just the Eastern zone mappings (EST and EDT).

```
\newcommand*{\DTMenCAeasternzonemaps}{%
  \DTMdefzonemap{-5}{00}{EST}%
  \DTMdefzonemap{-4}{00}{EDT}%
}
```

\DTMenCAcentralzonemaps Just the Central zone mappings (CST and CDT).

```
\newcommand*{\DTMenCAcentralzonemaps}{%
  \DTMdefzonemap{-6}{00}{CST}%
  \DTMdefzonemap{-5}{00}{CDT}%
}
```

\DTMenCAmountainzonemaps Just the Mountain zone mappings (MST and MDT).

```
\newcommand*{\DTMenCAmountainzonemaps}{%
  \DTMdefzonemap{-7}{00}{MST}%
  \DTMdefzonemap{-6}{00}{MDT}%
}
```

\DTMenCApacificzonemaps Just the Pacific zone mappings (PST and PDT).

```
\newcommand*{\DTMenCApacificzonemaps}{%
  \DTMdefzonemap{-8}{00}{PST}%
  \DTMdefzonemap{-7}{00}{PDT}%
}
```

Switch style according to the `useregional` setting.

```
\DTMifcaseregional
{}% do nothing
{\DTMsetstyle{en-CA}}%
{\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.)

```
\ifcsundef{date\CurrentTrackedDialect}
{% do nothing
  \ifundef\dateenglish
  {%
  }%
  {%
    \def\dateenglish{%
      \DTMifcaseregional
      {}% do nothing
      {\DTMsetstyle{en-CA}}%
      {\DTMsetstyle{en-CA-numeric}}%
    }%
  }%
}%
{%
  \csdef{date\CurrentTrackedDialect}{%
    \DTMifcaseregional
```

```
    {}% do nothing
    {\DTMsetstyle{en-CA}}%
    {\DTMsetstyle{en-CA-numeric}}%
  }%
}%
```

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

This file contains the Australian English style.

Identify this module.

```
\ProvidesDateTimeModule{en-AU}[2019/10/21 v1.05 (NLCT)]
```

Load base English module.

```
\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.

```
\newcommand*{\DTMenAUdowdaysep}{\space}
```

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

```
\newcommand*{\DTMenAUdaymonthsep}{\space}
```

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

```
\newcommand*{\DTMenAUmonthyearsep}{\space}
```

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

```
\newcommand*{\DTMenAUdatetimesep}{\space}
```

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

```
\newcommand*{\DTMenAUtimezonesep}{\space}
```

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

```
\newcommand*{\DTMenAUdatesep}{/}
```

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

```
\newcommand*{\DTMenAUtimesep}{:}
```

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

```
\DTMdefkey{en-AU}{dowdaysep}{\renewcommand*{\DTMenAUdowdaysep}{#1}}
\DTMdefkey{en-AU}{daymonthsep}{\renewcommand*{\DTMenAUdaymonthsep}{#1}}
\DTMdefkey{en-AU}{monthyearsep}{\renewcommand*{\DTMenAUmonthyearsep}{#1}}
\DTMdefkey{en-AU}{datetimesep}{\renewcommand*{\DTMenAUdatetimesep}{#1}}
\DTMdefkey{en-AU}{timezonesep}{\renewcommand*{\DTMenAUtimezonesep}{#1}}
\DTMdefkey{en-AU}{datesep}{\renewcommand*{\DTMenAUdatesep}{#1}}
\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.

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

The default is the full name.

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

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

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

The default is no mappings.

```
\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.)

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

The default is to show the day of the month.

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

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

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

The default is to show the year.

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

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

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

Define a setting to change the ordinal suffix style.

```
\DTMdefchoicekey{en-AU}{ord}[\@dtm@val\@dtm@nr]{level,raise,omit,sc}{%
 \ifcase\@dtm@nr\relax
   \renewcommand*{\DTMenAUfmtordsuffix}[1]{##1}%
 \or
   \renewcommand*{\DTMenAUfmtordsuffix}[1]{%
    \DTMtexorpdfstring{\protect\textsuperscript{##1}}{##1}}%
 \or
   \renewcommand*{\DTMenAUfmtordsuffix}[1]{}%
 \or
   \renewcommand*{\DTMenAUfmtordsuffix}[1]{%
    \DTMtexorpdfstring{\protect\textsc{##1}}{##1}}%
 \fi
}
```

Define a setting to change zone mappings.

```
\DTMdefchoicekey{en-AU}{zone}[\@dtm@val\@dtm@nr]%
 {std,standard,dst,daylight,central,central-western,western%
  eastern,christmas,lord-howe,cocos,keeling,clear}%
{%
 \ifcase\@dtm@nr\relax
```

```
 % std
  \appto\DTMenAUzonemaps{\DTMenAUstdzonemaps}%
  \DTMenAUstdzonemaps
\or
 % standard
  \appto\DTMenAUzonemaps{\DTMenAUstdzonemaps}%
  \DTMenAUstdzonemaps
\or
 % dst
  \appto\DTMenAUzonemaps{\DTMenAUdstzonemaps}%
  \DTMenAUdstzonemaps
\or
 % daylight
  \appto\DTMenAUzonemaps{\DTMenAUdstzonemaps}%
  \DTMenAUdstzonemaps
\or
 % central
  \appto\DTMenAUzonemaps{\DTMenAUcentralzonemaps}%
  \DTMenAUcentralzonemaps
\or
 % central-western
  \appto\DTMenAUzonemaps{\DTMenAUcentralwesternzonemaps}%
  \DTMenAUcentralwesternzonemaps
\or
 % western
  \appto\DTMenAUzonemaps{\DTMenAUwesternzonemaps}%
  \DTMenAUwesternzonemaps
\or
 % eastern
  \appto\DTMenAUzonemaps{\DTMenAUeasternzonemaps}%
  \DTMenAUeasternzonemaps
\or
 % christmas
  \appto\DTMenAUzonemaps{\DTMenAUchristmaszonemaps}%
  \DTMenAUchristmaszonemaps
\or
 % lord-howe
  \appto\DTMenAUzonemaps{\DTMenAUlordhowezonemaps}%
  \DTMenAUlordhowezonemaps
\or
 % norfolk
  \appto\DTMenAUzonemaps{\DTMenAUnorfolkzonemaps}%
  \DTMenAUnorfolkzonemaps
\or
 % cocos
  \appto\DTMenAUzonemaps{\DTMenAUcocoszonemaps}%
  \DTMenAUcocoszonemaps
\or
 % keeling
  \appto\DTMenAUzonemaps{\DTMenAUcocoszonemaps}%
```

```
  \DTMenAUcocoszonemaps
 \or
  % clear
  \renewcommand*{\DTMenAUzonemaps}{}%
  \DTMclearmap{6}{30}%
  \DTMclearmap{7}{00}%
  \DTMclearmap{8}{00}%
  \DTMclearmap{8}{45}%
  \DTMclearmap{9}{00}%
  \DTMclearmap{9}{30}%
  \DTMclearmap{10}{00}%
  \DTMclearmap{10}{30}%
  \DTMclearmap{11}{00}%
 \fi
}
```

Define the `en-AU` style.

```
\DTMnewstyle
 {en-AU}% label
 {% date style
   \renewcommand*{\DTMenglishfmtordsuffix}{\DTMenAUfmtordsuffix}%
   \renewcommand*\DTMdisplaydate[4]{%
     \ifDTMshowdow
       \ifnum##4>-1 % space intended
        \DTMifbool{en-AU}{abbr}%
         {\DTMenglishshortweekdayname{##4}}%
         {\DTMenglishweekdayname{##4}}%
        \DTMenAUdowdaysep
       \fi
     \fi
     \DTMifbool{en-AU}{showdayofmonth}%
     {%
       \DTMenglishordinal{##3}%
       \DTMenAUdaymonthsep
     }%
     {}%
     \DTMifbool{en-AU}{abbr}%
     {\DTMenglishshortmonthname{##2}}%
     {\DTMenglishmonthname{##2}}%
     \DTMifbool{en-AU}{showyear}%
     {%
       \DTMenAUmonthyearsep\number##1 % space intended
     }%
     {}%
   }%
   \renewcommand*{\DTMDisplaydate}[4]{\DTMdisplaydate{##1}{##2}{##3}{##4}}%
 }%
 {% time style
   \renewcommand*\DTMenglishtimesep{\DTMenAUtimesep}%
   \DTMsettimestyle{englishampm}%
```

```
}%
{% zone style
  \DTMresetzones
  \DTMenAUzonemaps
  \renewcommand*{\DTMdisplayzone}[2]{%
    \DTMifbool{en-AU}{mapzone}%
    {\DTMusezonemapordefault{##1}{##2}}%
    {%
      \ifnum##1<0 \else+\fi\DTMtwodigits{##1}%
      \ifDTMshowzoneminutes\DTMenAUtimesep\DTMtwodigits{##2}\fi
    }%
  }%
}%
{% full style
  \renewcommand*{\DTMdisplay}[9]{%
   \ifDTMshowdate
    \DTMdisplaydate{##1}{##2}{##3}{##4}%
    \DTMenAUdatetimesep
   \fi
   \DTMdisplaytime{##5}{##6}{##7}%
   \ifDTMshowzone
    \DTMenAUtimezonesep
    \DTMdisplayzone{##8}{##9}%
   \fi
  }%
  \renewcommand*{\DTMDisplay}{\DTMdisplay}%
}%
```

Define numeric style.

```
\DTMnewstyle
{en-AU-numeric}% label
{% date style
   \renewcommand*\DTMdisplaydate[4]{%
     \DTMifbool{en-AU}{showdayofmonth}%
     {%
     \number##3 % space intended
     \DTMenAUdatesep
     }%
     {}%
     \number##2 % space intended
     \DTMifbool{en-AU}{showyear}%
     {%
       \DTMenAUdatesep
       \number##1 % space intended
     }%
     {}%
   }%
   \renewcommand*{\DTMDisplaydate}[4]{\DTMdisplaydate{##1}{##2}{##3}{##4}}%
}%
{% time style
```

```
    \renewcommand*\DTMdisplaytime[3]{%
      \number##1
      \DTMenAUtimesep\DTMtwodigits{##2}%
      \ifDTMshowseconds\DTMenAUtimesep\DTMtwodigits{##3}\fi
    }%
  }%
  {% zone style
    \DTMresetzones
    \DTMenAUzonemaps
    \renewcommand*{\DTMdisplayzone}[2]{%
      \DTMifbool{en-AU}{mapzone}%
      {\DTMusezonemapordefault{##1}{##2}}%
      {%
        \ifnum##1<0 \else+\fi\DTMtwodigits{##1}%
        \ifDTMshowzoneminutes\DTMenAUtimesep\DTMtwodigits{##2}\fi
      }%
    }%
  }%
  {% full style
    \renewcommand*{\DTMdisplay}[9]{%
     \ifDTMshowdate
      \DTMdisplaydate{##1}{##2}{##3}{##4}%
      \DTMenAUdatetimesep
     \fi
     \DTMdisplaytime{##5}{##6}{##7}%
     \ifDTMshowzone
      \DTMenAUtimezonesep
      \DTMdisplayzone{##8}{##9}%
     \fi
    }%
    \renewcommand*{\DTMDisplay}{\DTMdisplay}%
  }
```

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

```
\newcommand*{\DTMenAUzonemaps}{%
  \DTMdefzonemap{10}{30}{ACDT}% Australian Central Daylight Time
  \DTMdefzonemap{11}{00}{AEDT}% Australian Eastern Daylight Time
  \DTMdefzonemap{9}{30}{ACST}% Australian Central Standard Time
  \DTMdefzonemap{8}{45}{ACWST}% Australian Central Western Standard Time
  \DTMdefzonemap{9}{00}{ACWDT}% Australian Central Western Daylight Time
  \DTMdefzonemap{10}{00}{AEDT}% Australian Eastern Standard Time
  \DTMdefzonemap{8}{00}{AWDT}% Australian Western Standard Time
  \DTMdefzonemap{7}{00}{CXT}% Christmas Island Time
  \DTMdefzonemap{11}{30}{NFT}% Norfolk Island Time
}
```

`\DTMenAUstdzonemaps` Just the standard time zone mappings.

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

```
  \DTMdefzonemap{7}{00}{CXT}%
  \DTMdefzonemap{9}{30}{ACST}%
  \DTMdefzonemap{8}{00}{AWST}%
  \DTMdefzonemap{8}{45}{ACWST}%
  \DTMdefzonemap{10}{00}{AEST}%
  \DTMdefzonemap{10}{30}{LHST}%
  \DTMdefzonemap{11}{00}{NFT}%
}
```

`\DTMenAUdstzonemaps` Just daylight saving mappings. (Conflicts omitted.)

```
\newcommand*{\DTMenAUdstzonemaps}{%
  \DTMdefzonemap{9}{00}{AWDT}%
  \DTMdefzonemap{10}{30}{ACDT}%
  \DTMdefzonemap{11}{00}{AEDT}%
}
```

`\DTMenAUcentralzonemaps` Just the Australian Central zone mappings (ACST and ACDT).

```
\newcommand*{\DTMenAUcentralzonemaps}{%
  \DTMdefzonemap{9}{30}{ACST}%
  \DTMdefzonemap{10}{30}{ACDT}%
}
```

`\DTMenAUcentralwesternzonemaps` Just the Australian Central Western zone mapping (ACWST).

```
\newcommand*{\DTMenAUcentralwesternzonemaps}{%
  \DTMdefzonemap{8}{45}{ACWST}%
}
```

`\DTMenAUwesternzonemaps` Just the Australian Western zone mappings (AWST and AWDT).

```
\newcommand*{\DTMenAUwesternzonemaps}{%
  \DTMdefzonemap{8}{00}{AWST}%
  \DTMdefzonemap{9}{00}{AWDT}%
}
```

`\DTMenAUeasternzonemaps` Just the Australian Eastern zone mappings (AEST and AEDT).

```
\newcommand*{\DTMenAUeasternzonemaps}{%
  \DTMdefzonemap{10}{00}{AEST}%
  \DTMdefzonemap{11}{00}{AEDT}%
}
```

`\DTMenAUchrismaszonemaps` Just the Christmas Island zone mapping (CXT).

```
\newcommand*{\DTMenAUchristmaszonemaps}{%
  \DTMdefzonemap{7}{00}{CXT}%
}
```

`\DTMenAUlordhowezonemaps` Just the Lord Howe Island zone mappings (LHST and LHDT).

```
\newcommand*{\DTMenAUlordhowezonemaps}{%
  \DTMdefzonemap{10}{30}{LHST}%
  \DTMdefzonemap{11}{00}{LHDT}%
}
```

\DTMenAUnorfolkzonemaps Just the Norfolk Island zone mapping (NFT).

```
\newcommand*{\DTMenAUnorfolkzonemaps}{%
  \DTMdefzonemap{11}{00}{NFT}%
}
```

\DTMenAUcocoszonemaps Just the Cocos (Keeling) Island zone mapping (CCT).

```
\newcommand*{\DTMenAUcocoszonemaps}{%
  \DTMdefzonemap{6}{30}{CCT}%
}
```

Switch style according to the `useregional` setting.

```
\DTMifcaseregional
{}% do nothing
{\DTMsetstyle{en-AU}}%
{\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.)

```
\ifcsundef{date\CurrentTrackedDialect}
{% do nothing
  \ifundef\dateenglish
  {%
  }%
  {%
    \def\dateenglish{%
      \DTMifcaseregional
      {}% do nothing
      {\DTMsetstyle{en-AU}}%
      {\DTMsetstyle{en-AU-numeric}}%
    }%
  }%
}%
{%
  \csdef{date\CurrentTrackedDialect}{%
    \DTMifcaseregional
    {}% do nothing
    {\DTMsetstyle{en-AU}}%
    {\DTMsetstyle{en-AU-numeric}}%
  }%
}%
```

14.7 English (New Zealand) Code (`datetime2-en-NZ.ldf`)

This file contains the New Zealand English style.

Identify this module.

```
\ProvidesDateTimeModule{en-NZ}[2019/10/21 v1.05 (NLCT)]
```

Load base English module.

```
\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.

```
\newcommand*{\DTMenNZdowdaysep}{\space}
```

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

```
\newcommand*{\DTMenNZdaymonthsep}{\space}
```

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

```
\newcommand*{\DTMenNZmonthyearsep}{\space}
```

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

```
\newcommand*{\DTMenNZdatetimesep}{\space}
```

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

```
\newcommand*{\DTMenNZtimezonesep}{\space}
```

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

```
\newcommand*{\DTMenNZdatesep}{/}
```

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

```
\newcommand*{\DTMenNZtimesep}{:}
```

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

```
\DTMdefkey{en-NZ}{dowdaysep}{\renewcommand*{\DTMenNZdowdaysep}{#1}}
\DTMdefkey{en-NZ}{daymonthsep}{\renewcommand*{\DTMenNZdaymonthsep}{#1}}
\DTMdefkey{en-NZ}{monthyearsep}{\renewcommand*{\DTMenNZmonthyearsep}{#1}}
\DTMdefkey{en-NZ}{datetimesep}{\renewcommand*{\DTMenNZdatetimesep}{#1}}
\DTMdefkey{en-NZ}{timezonesep}{\renewcommand*{\DTMenNZtimezonesep}{#1}}
\DTMdefkey{en-NZ}{datesep}{\renewcommand*{\DTMenNZdatesep}{#1}}
\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.

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

The default is the full name.

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

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

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

The default is no mappings.

```
\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.)

```
\DTMdefboolkey{en-NZ}{showdayofmonth}[true]{}
```

The default is to show the day of the month.

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

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

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

The default is to show the year.

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

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

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

Define a setting to change the ordinal suffix style.

```
\DTMdefchoicekey{en-NZ}{ord}[\@dtm@val\@dtm@nr]{level,raise,omit,sc}{%
 \ifcase\@dtm@nr\relax
   \renewcommand*{\DTMenNZfmtordsuffix}[1]{##1}%
 \or
   \renewcommand*{\DTMenNZfmtordsuffix}[1]{%
    \DTMtexorpdfstring{\protect\textsuperscript{##1}}{##1}}%
 \or
   \renewcommand*{\DTMenNZfmtordsuffix}[1]{}%
 \or
   \renewcommand*{\DTMenNZfmtordsuffix}[1]{%
    \DTMtexorpdfstring{\protect\textsc{##1}}{##1}}%
 \fi
}
```

Define the `en-NZ` style.

```
\DTMnewstyle
 {en-NZ}% label
 {% date style
   \renewcommand*{\DTMenglishfmtordsuffix}{\DTMenNZfmtordsuffix}%
   \renewcommand*\DTMdisplaydate[4]{%
     \ifDTMshowdow
       \ifnum##4>-1 % space intended
        \DTMifbool{en-NZ}{abbr}%
         {\DTMenglishshortweekdayname{##4}}%
         {\DTMenglishweekdayname{##4}}%
        \DTMenNZdowdaysep
       \fi
     \fi
     \DTMifbool{en-NZ}{showdayofmonth}%
     {%
       \DTMenglishordinal{##3}%
       \DTMenNZdaymonthsep
     }%
```

```
    {}%
    \DTMifbool{en-NZ}{abbr}%
    {\DTMenglishshortmonthname{##2}}%
    {\DTMenglishmonthname{##2}}%
    \DTMifbool{en-NZ}{showyear}%
    {%
      \DTMenNZmonthyearsep\number##1 % space intended
    }%
    {}%
  }%
  \renewcommand*{\DTMDisplaydate}[4]{\DTMdisplaydate{##1}{##2}{##3}{##4}}%
}%
{% time style
  \renewcommand*\DTMenglishtimesep{\DTMenNZtimesep}%
  \DTMsettimestyle{englishampm}%
}%
{% zone style
  \DTMresetzones
  \DTMenNZzonemaps
  \renewcommand*{\DTMdisplayzone}[2]{%
    \DTMifbool{en-NZ}{mapzone}%
    {\DTMusezonemapordefault{##1}{##2}}%
    {%
      \ifnum##1<0 \else+\fi\DTMtwodigits{##1}%
      \ifDTMshowzoneminutes\DTMenNZtimesep\DTMtwodigits{##2}\fi
    }%
  }%
}%
{% full style
  \renewcommand*{\DTMdisplay}[9]{%
   \ifDTMshowdate
    \DTMdisplaydate{##1}{##2}{##3}{##4}%
    \DTMenNZdatetimesep
   \fi
   \DTMdisplaytime{##5}{##6}{##7}%
   \ifDTMshowzone
    \DTMenNZtimezonesep
    \DTMdisplayzone{##8}{##9}%
   \fi
  }%
  \renewcommand*{\DTMDisplay}{\DTMdisplay}%
}%
```

Define numeric style.

```
\DTMnewstyle
{en-NZ-numeric}% label
{% date style
   \renewcommand*\DTMdisplaydate[4]{%
     \DTMifbool{en-NZ}{showdayofmonth}%
     {%
```

```
        \number##3 % space intended
        \DTMenNZdatesep
      }%
      {}%
      \number##2 % space intended
      \DTMifbool{en-NZ}{showyear}%
      {%
        \DTMenNZdatesep
        \number##1 % space intended
      }%
      {}%
    }%
    \renewcommand*{\DTMDisplaydate}[4]{\DTMdisplaydate{##1}{##2}{##3}{##4}}%
}%
{% time style
    \renewcommand*\DTMdisplaytime[3]{%
      \number##1
      \DTMenNZtimesep\DTMtwodigits{##2}%
      \ifDTMshowseconds\DTMenNZtimesep\DTMtwodigits{##3}\fi
    }%
}%
{% zone style
  \DTMresetzones
  \DTMenNZzonemaps
  \renewcommand*{\DTMdisplayzone}[2]{%
    \DTMifbool{en-NZ}{mapzone}%
    {\DTMusezonemapordefault{##1}{##2}}%
    {%
      \ifnum##1<0 \else+\fi\DTMtwodigits{##1}%
      \ifDTMshowzoneminutes\DTMenNZtimesep\DTMtwodigits{##2}\fi
    }%
  }%
}%
{% full style
  \renewcommand*{\DTMdisplay}[9]{%
   \ifDTMshowdate
    \DTMdisplaydate{##1}{##2}{##3}{##4}%
    \DTMenNZdatetimesep
   \fi
   \DTMdisplaytime{##5}{##6}{##7}%
   \ifDTMshowzone
    \DTMenNZtimezonesep
    \DTMdisplayzone{##8}{##9}%
   \fi
  }%
  \renewcommand*{\DTMDisplay}{\DTMdisplay}%
}
```

`\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.

```
\newcommand*{\DTMenNZzonemaps}{%
  \DTMdefzonemap{12}{00}{NZST}%
  \DTMdefzonemap{12}{45}{CHAST}%
  \DTMdefzonemap{13}{00}{NZDT}%
  \DTMdefzonemap{13}{45}{CHADT}%
}
```

Switch style according to the `useregional` setting.

```
\DTMifcaseregional
{}% do nothing
{\DTMsetstyle{en-NZ}}%
{\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.)

```
\ifcsundef{date\CurrentTrackedDialect}
{% do nothing
  \ifundef\dateenglish
  {%
  }%
  {%
    \def\dateenglish{%
      \DTMifcaseregional
      {}% do nothing
      {\DTMsetstyle{en-NZ}}%
      {\DTMsetstyle{en-NZ-numeric}}%
    }%
  }%
}%
{%
  \csdef{date\CurrentTrackedDialect}{%
    \DTMifcaseregional
    {}% do nothing
    {\DTMsetstyle{en-NZ}}%
    {\DTMsetstyle{en-NZ-numeric}}%
  }%
}%
```

14.8 English (GG) Code (`datetime2-en-GG.ldf`)

This file contains the `en-GG` style.

Identify this module.

```
\ProvidesDateTimeModule{en-GG}[2019/10/21 v1.05 (NLCT)]
```

Load base English module.

```
\RequireDateTimeModule{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.

```
\newcommand*{\DTMenGGdowdaysep}{\space}
```

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

```
\newcommand*{\DTMenGGdaymonthsep}{\space}
```

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

```
\newcommand*{\DTMenGGmonthyearsep}{\space}
```

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

```
\newcommand*{\DTMenGGdatetimesep}{\space}
```

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

```
\newcommand*{\DTMenGGtimezonesep}{\space}
```

\DTMenGGdatesep The separator for the numeric date format.

```
\newcommand*{\DTMenGGdatesep}{/}
```

\DTMenGGtimesep The separator for the numeric time format.

```
\newcommand*{\DTMenGGtimesep}{:}
```

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

```
\DTMdefkey{en-GG}{dowdaysep}{\renewcommand*{\DTMenGGdowdaysep}{#1}}
\DTMdefkey{en-GG}{daymonthsep}{\renewcommand*{\DTMenGGdaymonthsep}{#1}}
\DTMdefkey{en-GG}{monthyearsep}{\renewcommand*{\DTMenGGmonthyearsep}{#1}}
\DTMdefkey{en-GG}{datetimesep}{\renewcommand*{\DTMenGGdatetimesep}{#1}}
\DTMdefkey{en-GG}{timezonesep}{\renewcommand*{\DTMenGGtimezonesep}{#1}}
\DTMdefkey{en-GG}{datesep}{\renewcommand*{\DTMenGGdatesep}{#1}}
\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.

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

The default is the full name.

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

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

```
\DTMdefboolkey{en-GG}{mapzone}[true]{}
```

The default is to use mappings.

```
\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.)

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

The default is to show the day of the month.

```
\DTMsetbool{en-GG}{showdayofmonth}{true}
```

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

```
\DTMdefboolkey{en-GG}{showyear}[true]{}
```

The default is to show the year.

```
\DTMsetbool{en-GG}{showyear}{true}
```

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

```
\newcommand*{\DTMenGGfmtordsuffix}[1]{#1}
```

Define a setting to change the ordinal suffix style.

```
\DTMdefchoicekey{en-GG}{ord}[\@dtm@val\@dtm@nr]{level,raise,omit,sc}{%
 \ifcase\@dtm@nr\relax
   \renewcommand*{\DTMenGGfmtordsuffix}[1]{##1}%
 \or
   \renewcommand*{\DTMenGGfmtordsuffix}[1]{%
    \DTMtexorpdfstring{\protect\textsuperscript{##1}}{##1}}%
 \or
   \renewcommand*{\DTMenGGfmtordsuffix}[1]{}%
 \or
   \renewcommand*{\DTMenGGfmtordsuffix}[1]{%
    \DTMtexorpdfstring{\protect\textsc{##1}}{##1}}%
 \fi
}
```

Define the `en-GG` style.

```
\DTMnewstyle
 {en-GG}% label
 {% date style
   \renewcommand*{\DTMenglishfmtordsuffix}{\DTMenGGfmtordsuffix}%
   \renewcommand*\DTMdisplaydate[4]{%
     \ifDTMshowdow
       \ifnum##4>-1 % space intended
        \DTMifbool{en-GG}{abbr}%
         {\DTMenglishshortweekdayname{##4}}%
         {\DTMenglishweekdayname{##4}}%
        \DTMenGGdowdaysep
       \fi
     \fi
     \DTMifbool{en-GG}{showdayofmonth}%
     {%
       \DTMenglishordinal{##3}%
       \DTMenGGdaymonthsep
     }%
     {}%
     \DTMifbool{en-GG}{abbr}%
     {\DTMenglishshortmonthname{##2}}%
     {\DTMenglishmonthname{##2}}%
```

```
    \DTMifbool{en-GG}{showyear}%
    {%
      \DTMenGGmonthyearsep\number##1 % space intended
    }%
    {}%
  }%
  \renewcommand*{\DTMDisplaydate}[4]{\DTMdisplaydate{##1}{##2}{##3}{##4}}%
}%
{% time style
  \renewcommand*\DTMenglishtimesep{\DTMenGGtimesep}%
  \DTMsettimestyle{englishampm}%
}%
{% zone style
  \DTMresetzones
  \DTMenGGzonemaps
  \renewcommand*{\DTMdisplayzone}[2]{%
    \DTMifbool{en-GG}{mapzone}%
    {\DTMusezonemapordefault{##1}{##2}}%
    {%
      \ifnum##1<0 \else+\fi\DTMtwodigits{##1}%
      \ifDTMshowzoneminutes\DTMenGGtimesep\DTMtwodigits{##2}\fi
    }%
  }%
}%
{% full style
  \renewcommand*{\DTMdisplay}[9]{%
   \ifDTMshowdate
    \DTMdisplaydate{##1}{##2}{##3}{##4}%
    \DTMenGGdatetimesep
   \fi
   \DTMdisplaytime{##5}{##6}{##7}%
   \ifDTMshowzone
    \DTMenGGtimezonesep
    \DTMdisplayzone{##8}{##9}%
   \fi
  }%
  \renewcommand*{\DTMDisplay}{\DTMdisplay}%
}%
```

Define numeric style.

```
\DTMnewstyle
{en-GG-numeric}% label
{% date style
   \renewcommand*\DTMdisplaydate[4]{%
     \DTMifbool{en-GG}{showdayofmonth}%
     {%
       \number##3 % space intended
       \DTMenGGdatesep
     }%
     {}%
```

```
      \number##2 % space intended
      \DTMifbool{en-GG}{showyear}%
      {%
        \DTMenGGdatesep
        \number##1 % space intended
      }%
      {}%
    }%
    \renewcommand*{\DTMDisplaydate}[4]{\DTMdisplaydate{##1}{##2}{##3}{##4}}%
  }%
  {% time style
    \renewcommand*\DTMdisplaytime[3]{%
      \number##1
      \DTMenGGtimesep\DTMtwodigits{##2}%
      \ifDTMshowseconds\DTMenGGtimesep\DTMtwodigits{##3}\fi
    }%
  }%
  {% zone style
    \DTMresetzones
    \DTMenGGzonemaps
    \renewcommand*{\DTMdisplayzone}[2]{%
      \DTMifbool{en-GG}{mapzone}%
      {\DTMusezonemapordefault{##1}{##2}}%
      {%
        \ifnum##1<0 \else+\fi\DTMtwodigits{##1}%
        \ifDTMshowzoneminutes\DTMenGGtimesep\DTMtwodigits{##2}\fi
      }%
    }%
  }%
  {% full style
    \renewcommand*{\DTMdisplay}[9]{%
     \ifDTMshowdate
      \DTMdisplaydate{##1}{##2}{##3}{##4}%
      \DTMenGGdatetimesep
     \fi
     \DTMdisplaytime{##5}{##6}{##7}%
     \ifDTMshowzone
      \DTMenGGtimezonesep
      \DTMdisplayzone{##8}{##9}%
     \fi
    }%
    \renewcommand*{\DTMDisplay}{\DTMdisplay}%
  }
```

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

```
\newcommand*{\DTMenGGzonemaps}{%
  \DTMdefzonemap{00}{00}{GMT}%
  \DTMdefzonemap{01}{00}{BST}%
}
```

Switch style according to the useregional setting.

```
\DTMifcaseregional
{}% do nothing
{\DTMsetstyle{en-GG}}%
{\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.)

```
\ifcsundef{date\CurrentTrackedDialect}
{% do nothing
  \ifundef\dateenglish
  {%
  }%
  {%
    \def\dateenglish{%
      \DTMifcaseregional
      {}% do nothing
      {\DTMsetstyle{en-GG}}%
      {\DTMsetstyle{en-GG-numeric}}%
    }%
  }%
}%
{%
  \csdef{date\CurrentTrackedDialect}{%
    \DTMifcaseregional
    {}% do nothing
    {\DTMsetstyle{en-GG}}%
    {\DTMsetstyle{en-GG-numeric}}%
  }%
}%
```

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

This file contains the en-JE style.

Identify this module.

```
\ProvidesDateTimeModule{en-JE}[2019/10/21 v1.05 (NLCT)]
```

Load base English module.

```
\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.

```
\newcommand*{\DTMenJEdowdaysep}{\space}
```

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

```
\newcommand*{\DTMenJEdaymonthsep}{\space}
```

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

```
\newcommand*{\DTMenJEmonthyearsep}{\space}
```

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

```
\newcommand*{\DTMenJEdatetimesep}{\space}
```

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

```
\newcommand*{\DTMenJEtimezonesep}{\space}
```

\DTMenJEdatesep The separator for the numeric date format.

```
\newcommand*{\DTMenJEdatesep}{/}
```

\DTMenJEtimesep The separator for the numeric time format.

```
\newcommand*{\DTMenJEtimesep}{:}
```

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

```
\DTMdefkey{en-JE}{dowdaysep}{\renewcommand*{\DTMenJEdowdaysep}{#1}}
\DTMdefkey{en-JE}{daymonthsep}{\renewcommand*{\DTMenJEdaymonthsep}{#1}}
\DTMdefkey{en-JE}{monthyearsep}{\renewcommand*{\DTMenJEmonthyearsep}{#1}}
\DTMdefkey{en-JE}{datetimesep}{\renewcommand*{\DTMenJEdatetimesep}{#1}}
\DTMdefkey{en-JE}{timezonesep}{\renewcommand*{\DTMenJEtimezonesep}{#1}}
\DTMdefkey{en-JE}{datesep}{\renewcommand*{\DTMenJEdatesep}{#1}}
\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.

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

The default is the full name.

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

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

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

The default is to use mappings.

```
\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.)

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

The default is to show the day of the month.

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

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

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

The default is to show the year.

```
\DTMsetbool{en-JE}{showyear}{true}
```

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

```
\newcommand*{\DTMenJEfmtordsuffix}[1]{#1}
```

Define a setting to change the ordinal suffix style.

```
\DTMdefchoicekey{en-JE}{ord}[\@dtm@val\@dtm@nr]{level,raise,omit,sc}{%
 \ifcase\@dtm@nr\relax
   \renewcommand*{\DTMenJEfmtordsuffix}[1]{##1}%
 \or
   \renewcommand*{\DTMenJEfmtordsuffix}[1]{%
    \DTMtexorpdfstring{\protect\textsuperscript{##1}}{##1}}%
 \or
   \renewcommand*{\DTMenJEfmtordsuffix}[1]{}%
 \or
   \renewcommand*{\DTMenJEfmtordsuffix}[1]{%
    \DTMtexorpdfstring{\protect\textsc{##1}}{##1}}%
 \fi
}
```

Define the `en-JE` style.

```
\DTMnewstyle
 {en-JE}% label
 {% date style
   \renewcommand*{\DTMenglishfmtordsuffix}{\DTMenJEfmtordsuffix}%
   \renewcommand*\DTMdisplaydate[4]{%
     \ifDTMshowdow
       \ifnum##4>-1 % space intended
        \DTMifbool{en-JE}{abbr}%
         {\DTMenglishshortweekdayname{##4}}%
         {\DTMenglishweekdayname{##4}}%
        \DTMenJEdowdaysep
       \fi
     \fi
     \DTMifbool{en-JE}{showdayofmonth}%
     {%
       \DTMenglishordinal{##3}%
       \DTMenJEdaymonthsep
     }%
     {}%
     \DTMifbool{en-JE}{abbr}%
     {\DTMenglishshortmonthname{##2}}%
     {\DTMenglishmonthname{##2}}%
     \DTMifbool{en-JE}{showyear}%
     {%
       \DTMenJEmonthyearsep\number##1 % space intended
     }%
     {}%
   }%
```

```
  \renewcommand*{\DTMDisplaydate}[4]{\DTMdisplaydate{##1}{##2}{##3}{##4}}%
}%
{% time style
  \renewcommand*\DTMenglishtimesep{\DTMenJEtimesep}%
  \DTMsettimestyle{englishampm}%
}%
{% zone style
  \DTMresetzones
  \DTMenJEzonemaps
  \renewcommand*{\DTMdisplayzone}[2]{%
    \DTMifbool{en-JE}{mapzone}%
    {\DTMusezonemapordefault{##1}{##2}}%
    {%
      \ifnum##1<0 \else+\fi\DTMtwodigits{##1}%
      \ifDTMshowzoneminutes\DTMenJEtimesep\DTMtwodigits{##2}\fi
    }%
  }%
}%
{% full style
  \renewcommand*{\DTMdisplay}[9]{%
   \ifDTMshowdate
    \DTMdisplaydate{##1}{##2}{##3}{##4}%
    \DTMenJEdatetimesep
   \fi
   \DTMdisplaytime{##5}{##6}{##7}%
   \ifDTMshowzone
    \DTMenJEtimezonesep
    \DTMdisplayzone{##8}{##9}%
   \fi
  }%
  \renewcommand*{\DTMDisplay}{\DTMdisplay}%
}%
```

Define numeric style.

```
\DTMnewstyle
{en-JE-numeric}% label
{% date style
   \renewcommand*\DTMdisplaydate[4]{%
     \DTMifbool{en-JE}{showdayofmonth}%
     {%
       \number##3 % space intended
       \DTMenJEdatesep
     }%
     {}%
     \number##2 % space intended
     \DTMifbool{en-JE}{showyear}%
     {%
       \DTMenJEdatesep
       \number##1 % space intended
     }%
```

```
      {}%
    }%
    \renewcommand*{\DTMDisplaydate}[4]{\DTMdisplaydate{##1}{##2}{##3}{##4}}%
}%
{% time style
    \renewcommand*\DTMdisplaytime[3]{%
      \number##1
      \DTMenJEtimesep\DTMtwodigits{##2}%
      \ifDTMshowseconds\DTMenJEtimesep\DTMtwodigits{##3}\fi
    }%
}%
{% zone style
  \DTMresetzones
  \DTMenJEzonemaps
  \renewcommand*{\DTMdisplayzone}[2]{%
    \DTMifbool{en-JE}{mapzone}%
    {\DTMusezonemapordefault{##1}{##2}}%
    {%
      \ifnum##1<0 \else+\fi\DTMtwodigits{##1}%
      \ifDTMshowzoneminutes\DTMenJEtimesep\DTMtwodigits{##2}\fi
    }%
  }%
}%
{% full style
  \renewcommand*{\DTMdisplay}[9]{%
   \ifDTMshowdate
    \DTMdisplaydate{##1}{##2}{##3}{##4}%
    \DTMenJEdatetimesep
   \fi
   \DTMdisplaytime{##5}{##6}{##7}%
   \ifDTMshowzone
    \DTMenJEtimezonesep
    \DTMdisplayzone{##8}{##9}%
   \fi
  }%
  \renewcommand*{\DTMDisplay}{\DTMdisplay}%
}
```

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

```
\newcommand*{\DTMenJEzonemaps}{%
  \DTMdefzonemap{00}{00}{GMT}%
  \DTMdefzonemap{01}{00}{BST}%
}
```

Switch style according to the `useregional` setting.

```
\DTMifcaseregional
{}% do nothing
{\DTMsetstyle{en-JE}}%
{\DTMsetstyle{en-JE-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.)

```
\ifcsundef{date\CurrentTrackedDialect}
{% do nothing
  \ifundef\dateenglish
  {%
  }%
  {%
    \def\dateenglish{%
      \DTMifcaseregional
      {}% do nothing
      {\DTMsetstyle{en-JE}}%
      {\DTMsetstyle{en-JE-numeric}}%
    }%
  }%
}%
{%
  \csdef{date\CurrentTrackedDialect}{%
    \DTMifcaseregional
    {}% do nothing
    {\DTMsetstyle{en-JE}}%
    {\DTMsetstyle{en-JE-numeric}}%
  }%
}%
```

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

This file contains the en-IM style.

Identify this module.

```
\ProvidesDateTimeModule{en-IM}[2019/10/21 v1.05 (NLCT)]
```

Load base English module.

```
\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.

```
\newcommand*{\DTMenIMdowdaysep}{\space}
```

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

```
\newcommand*{\DTMenIMdaymonthsep}{\space}
```

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

```
\newcommand*{\DTMenIMmonthyearsep}{\space}
```

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

```
\newcommand*{\DTMenIMdatetimesep}{\space}
```

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

```
\newcommand*{\DTMenIMtimezonesep}{\space}
```

\DTMenIMdatesep The separator for the numeric date format.

```
\newcommand*{\DTMenIMdatesep}{/}
```

\DTMenIMtimesep The separator for the numeric time format.

```
\newcommand*{\DTMenIMtimesep}{:}
```

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

```
\DTMdefkey{en-IM}{dowdaysep}{\renewcommand*{\DTMenIMdowdaysep}{#1}}
\DTMdefkey{en-IM}{daymonthsep}{\renewcommand*{\DTMenIMdaymonthsep}{#1}}
\DTMdefkey{en-IM}{monthyearsep}{\renewcommand*{\DTMenIMmonthyearsep}{#1}}
\DTMdefkey{en-IM}{datetimesep}{\renewcommand*{\DTMenIMdatetimesep}{#1}}
\DTMdefkey{en-IM}{timezonesep}{\renewcommand*{\DTMenIMtimezonesep}{#1}}
\DTMdefkey{en-IM}{datesep}{\renewcommand*{\DTMenIMdatesep}{#1}}
\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.

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

The default is the full name.

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

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

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

The default is to use mappings.

```
\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.)

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

The default is to show the day of the month.

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

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

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

The default is to show the year.

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

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

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

Define a setting to change the ordinal suffix style.

```
\DTMdefchoicekey{en-IM}{ord}[\@dtm@val\@dtm@nr]{level,raise,omit,sc}{%
 \ifcase\@dtm@nr\relax
   \renewcommand*{\DTMenIMfmtordsuffix}[1]{##1}%
 \or
   \renewcommand*{\DTMenIMfmtordsuffix}[1]{%
    \DTMtexorpdfstring{\protect\textsuperscript{##1}}{##1}}%
 \or
   \renewcommand*{\DTMenIMfmtordsuffix}[1]{}%
 \or
   \renewcommand*{\DTMenIMfmtordsuffix}[1]{%
    \DTMtexorpdfstring{\protect\textsc{##1}}{##1}}%
 \fi
}
```

Define the `en-IM` style.

```
\DTMnewstyle
{en-IM}% label
{% date style
  \renewcommand*{\DTMenglishfmtordsuffix}{\DTMenIMfmtordsuffix}%
  \renewcommand*\DTMdisplaydate[4]{%
    \ifDTMshowdow
      \ifnum##4>-1 % space intended
       \DTMifbool{en-IM}{abbr}%
        {\DTMenglishshortweekdayname{##4}}%
        {\DTMenglishweekdayname{##4}}%
       \DTMenIMdowdaysep
      \fi
    \fi
    \DTMifbool{en-IM}{showdayofmonth}%
    {%
      \DTMenglishordinal{##3}%
      \DTMenIMdaymonthsep
    }%
    {}%
    \DTMifbool{en-IM}{abbr}%
    {\DTMenglishshortmonthname{##2}}%
    {\DTMenglishmonthname{##2}}%
    \DTMifbool{en-IM}{showyear}%
    {%
      \DTMenIMmonthyearsep\number##1 % space intended
    }%
    {}%
  }%
  \renewcommand*{\DTMDisplaydate}[4]{\DTMdisplaydate{##1}{##2}{##3}{##4}}%
}%
{% time style
```

```
  \renewcommand*\DTMenglishtimesep{\DTMenIMtimesep}%
  \DTMsettimestyle{englishampm}%
}%
{% zone style
  \DTMresetzones
  \DTMenIMzonemaps
  \renewcommand*{\DTMdisplayzone}[2]{%
    \DTMifbool{en-IM}{mapzone}%
    {\DTMusezonemapordefault{##1}{##2}}%
    {%
      \ifnum##1<0 \else+\fi\DTMtwodigits{##1}%
      \ifDTMshowzoneminutes\DTMenIMtimesep\DTMtwodigits{##2}\fi
    }%
  }%
}%
{% full style
  \renewcommand*{\DTMdisplay}[9]{%
   \ifDTMshowdate
    \DTMdisplaydate{##1}{##2}{##3}{##4}%
    \DTMenIMdatetimesep
   \fi
   \DTMdisplaytime{##5}{##6}{##7}%
   \ifDTMshowzone
    \DTMenIMtimezonesep
    \DTMdisplayzone{##8}{##9}%
   \fi
  }%
  \renewcommand*{\DTMDisplay}{\DTMdisplay}%
}%
```

Define numeric style.

```
\DTMnewstyle
{en-IM-numeric}% label
{% date style
   \renewcommand*\DTMdisplaydate[4]{%
     \DTMifbool{en-IM}{showdayofmonth}%
     {%
       \number##3 % space intended
       \DTMenIMdatesep
     }%
     {}%
     \number##2 % space intended
     \DTMifbool{en-IM}{showyear}%
     {%
       \DTMenIMdatesep
       \number##1 % space intended
     }%
     {}%
   }%
   \renewcommand*{\DTMDisplaydate}[4]{\DTMdisplaydate{##1}{##2}{##3}{##4}}%
```

```
}%
{% time style
   \renewcommand*\DTMdisplaytime[3]{%
     \number##1
     \DTMenIMtimesep\DTMtwodigits{##2}%
     \ifDTMshowseconds\DTMenIMtimesep\DTMtwodigits{##3}\fi
   }%
}%
{% zone style
  \DTMresetzones
  \DTMenIMzonemaps
  \renewcommand*{\DTMdisplayzone}[2]{%
    \DTMifbool{en-IM}{mapzone}%
    {\DTMusezonemapordefault{##1}{##2}}%
    {%
      \ifnum##1<0 \else+\fi\DTMtwodigits{##1}%
      \ifDTMshowzoneminutes\DTMenIMtimesep\DTMtwodigits{##2}\fi
    }%
  }%
}%
{% full style
  \renewcommand*{\DTMdisplay}[9]{%
   \ifDTMshowdate
    \DTMdisplaydate{##1}{##2}{##3}{##4}%
    \DTMenIMdatetimesep
   \fi
   \DTMdisplaytime{##5}{##6}{##7}%
   \ifDTMshowzone
    \DTMenIMtimezonesep
    \DTMdisplayzone{##8}{##9}%
   \fi
  }%
  \renewcommand*{\DTMDisplay}{\DTMdisplay}%
}
```

`\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.

```
\newcommand*{\DTMenIMzonemaps}{%
  \DTMdefzonemap{00}{00}{GMT}%
  \DTMdefzonemap{01}{00}{BST}%
}
```

Switch style according to the `useregional` setting.

```
\DTMifcaseregional
{}% do nothing
{\DTMsetstyle{en-IM}}%
{\DTMsetstyle{en-IM-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.)

```
\ifcsundef{date\CurrentTrackedDialect}
{% do nothing
  \ifundef\dateenglish
  {%
  }%
  {%
    \def\dateenglish{%
      \DTMifcaseregional
      {}% do nothing
      {\DTMsetstyle{en-IM}}%
      {\DTMsetstyle{en-IM-numeric}}%
    }%
  }%
}%
{%
  \csdef{date\CurrentTrackedDialect}{%
    \DTMifcaseregional
    {}% do nothing
    {\DTMsetstyle{en-IM}}%
    {\DTMsetstyle{en-IM-numeric}}%
  }%
}%
```

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

This file contains the en-MT style.

Identify this module.

```
\ProvidesDateTimeModule{en-MT}[2019/10/21 v1.05 (NLCT)]
```

Load base English module.

```
\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.

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

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

```
\newcommand*{\DTMenMTdaymonthsep}{\space}
```

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

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

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

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

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

```
\newcommand*{\DTMenMTtimezonesep}{\space}
```

\DTMenMTdatesep The separator for the numeric date format.

```
\newcommand*{\DTMenMTdatesep}{/}
```

\DTMenMTtimesep The separator for the numeric time format.

```
\newcommand*{\DTMenMTtimesep}{:}
```

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

```
\DTMdefkey{en-MT}{dowdaysep}{\renewcommand*{\DTMenMTdowdaysep}{#1}}
\DTMdefkey{en-MT}{daymonthsep}{\renewcommand*{\DTMenMTdaymonthsep}{#1}}
\DTMdefkey{en-MT}{monthyearsep}{\renewcommand*{\DTMenMTmonthyearsep}{#1}}
\DTMdefkey{en-MT}{datetimesep}{\renewcommand*{\DTMenMTdatetimesep}{#1}}
\DTMdefkey{en-MT}{timezonesep}{\renewcommand*{\DTMenMTtimezonesep}{#1}}
\DTMdefkey{en-MT}{datesep}{\renewcommand*{\DTMenMTdatesep}{#1}}
\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.

```
\DTMdefboolkey{en-MT}{abbr}[true]{}
```

The default is the full name.

```
\DTMsetbool{en-MT}{abbr}{false}
```

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

```
\DTMdefboolkey{en-MT}{mapzone}[true]{}
```

The default is to use mappings.

```
\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.)

```
\DTMdefboolkey{en-MT}{showdayofmonth}[true]{}
```

The default is to show the day of the month.

```
\DTMsetbool{en-MT}{showdayofmonth}{true}
```

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

```
\DTMdefboolkey{en-MT}{showyear}[true]{}
```

The default is to show the year.

```
\DTMsetbool{en-MT}{showyear}{true}
```

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

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

Define a setting to change the ordinal suffix style.

```
\DTMdefchoicekey{en-MT}{ord}[\@dtm@val\@dtm@nr]{level,raise,omit,sc}{%
 \ifcase\@dtm@nr\relax
   \renewcommand*{\DTMenMTfmtordsuffix}[1]{##1}%
 \or
   \renewcommand*{\DTMenMTfmtordsuffix}[1]{%
    \DTMtexorpdfstring{\protect\textsuperscript{##1}}{##1}}%
 \or
   \renewcommand*{\DTMenMTfmtordsuffix}[1]{}%
 \or
   \renewcommand*{\DTMenMTfmtordsuffix}[1]{%
    \DTMtexorpdfstring{\protect\textsc{##1}}{##1}}%
 \fi
}
```

Define the `en-MT` style.

```
\DTMnewstyle
 {en-MT}% label
 {% date style
   \renewcommand*{\DTMenglishfmtordsuffix}{\DTMenMTfmtordsuffix}%
   \renewcommand*\DTMdisplaydate[4]{%
     \ifDTMshowdow
       \ifnum##4>-1 % space intended
        \DTMifbool{en-MT}{abbr}%
         {\DTMenglishshortweekdayname{##4}}%
         {\DTMenglishweekdayname{##4}}%
        \DTMenMTdowdaysep
       \fi
     \fi
     \DTMifbool{en-MT}{showdayofmonth}%
     {%
       \DTMenglishordinal{##3}%
       \DTMenMTdaymonthsep
     }%
     {}%
     \DTMifbool{en-MT}{abbr}%
     {\DTMenglishshortmonthname{##2}}%
     {\DTMenglishmonthname{##2}}%
     \DTMifbool{en-MT}{showyear}%
     {%
       \DTMenMTmonthyearsep\number##1 % space intended
     }%
     {}%
   }%
   \renewcommand*{\DTMDisplaydate}[4]{\DTMdisplaydate{##1}{##2}{##3}{##4}}%
 }%
 {% time style
   \renewcommand*\DTMenglishtimesep{\DTMenMTtimesep}%
   \DTMsettimestyle{englishampm}%
 }%
```

```
{% zone style
  \DTMresetzones
  \DTMenMTzonemaps
  \renewcommand*{\DTMdisplayzone}[2]{%
    \DTMifbool{en-MT}{mapzone}%
    {\DTMusezonemapordefault{##1}{##2}}%
    {%
      \ifnum##1<0 \else+\fi\DTMtwodigits{##1}%
      \ifDTMshowzoneminutes\DTMenMTtimesep\DTMtwodigits{##2}\fi
    }%
  }%
}%
{% full style
  \renewcommand*{\DTMdisplay}[9]{%
   \ifDTMshowdate
    \DTMdisplaydate{##1}{##2}{##3}{##4}%
    \DTMenMTdatetimesep
   \fi
   \DTMdisplaytime{##5}{##6}{##7}%
   \ifDTMshowzone
    \DTMenMTtimezonesep
    \DTMdisplayzone{##8}{##9}%
   \fi
  }%
  \renewcommand*{\DTMDisplay}{\DTMdisplay}%
}%
```

Define numeric style.

```
\DTMnewstyle
{en-MT-numeric}% label
{% date style
   \renewcommand*\DTMdisplaydate[4]{%
     \DTMifbool{en-MT}{showdayofmonth}%
     {%
       \number##3 % space intended
       \DTMenMTdatesep
     }%
     {}%
     \number##2 % space intended
     \DTMifbool{en-MT}{showyear}%
     {%
       \DTMenMTdatesep
       \number##1 % space intended
     }%
     {}%
   }%
   \renewcommand*{\DTMDisplaydate}[4]{\DTMdisplaydate{##1}{##2}{##3}{##4}}%
}%
{% time style
   \renewcommand*\DTMdisplaytime[3]{%
```

```
      \number##1
      \DTMenMTtimesep\DTMtwodigits{##2}%
      \ifDTMshowseconds\DTMenMTtimesep\DTMtwodigits{##3}\fi
    }%
}%
{% zone style
  \DTMresetzones
  \DTMenMTzonemaps
  \renewcommand*{\DTMdisplayzone}[2]{%
    \DTMifbool{en-MT}{mapzone}%
    {\DTMusezonemapordefault{##1}{##2}}%
    {%
      \ifnum##1<0 \else+\fi\DTMtwodigits{##1}%
      \ifDTMshowzoneminutes\DTMenMTtimesep\DTMtwodigits{##2}\fi
    }%
  }%
}%
{% full style
  \renewcommand*{\DTMdisplay}[9]{%
   \ifDTMshowdate
    \DTMdisplaydate{##1}{##2}{##3}{##4}%
    \DTMenMTdatetimesep
   \fi
   \DTMdisplaytime{##5}{##6}{##7}%
   \ifDTMshowzone
    \DTMenMTtimezonesep
    \DTMdisplayzone{##8}{##9}%
   \fi
  }%
  \renewcommand*{\DTMDisplay}{\DTMdisplay}%
}
```

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

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

Switch style according to the `useregional` setting.

```
\DTMifcaseregional
{}% do nothing
{\DTMsetstyle{en-MT}}%
{\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.)

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

```
  {%
  }%
  {%
    \def\dateenglish{%
      \DTMifcaseregional
      {}% do nothing
      {\DTMsetstyle{en-MT}}%
      {\DTMsetstyle{en-MT-numeric}}%
    }%
  }%
}%
{%
  \csdef{date\CurrentTrackedDialect}{%
    \DTMifcaseregional
    {}% do nothing
    {\DTMsetstyle{en-MT}}%
    {\DTMsetstyle{en-MT-numeric}}%
  }%
}%
```

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

This file contains the en-IE style.

Identify this module.

```
\ProvidesDateTimeModule{en-IE}[2019/10/21 v1.05 (NLCT)]
```

Load base English module.

```
\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.

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

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

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

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

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

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

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

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

```
\newcommand*{\DTMenIEtimezonesep}{\space}
```

\DTMenIEdatesep The separator for the numeric date format.

```
\newcommand*{\DTMenIEdatesep}{/}
```

\DTMenIEtimesep The separator for the numeric time format.

```
\newcommand*{\DTMenIEtimesep}{:}
```

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

```
\DTMdefkey{en-IE}{dowdaysep}{\renewcommand*{\DTMenIEdowdaysep}{#1}}
\DTMdefkey{en-IE}{daymonthsep}{\renewcommand*{\DTMenIEdaymonthsep}{#1}}
\DTMdefkey{en-IE}{monthyearsep}{\renewcommand*{\DTMenIEmonthyearsep}{#1}}
\DTMdefkey{en-IE}{datetimesep}{\renewcommand*{\DTMenIEdatetimesep}{#1}}
\DTMdefkey{en-IE}{timezonesep}{\renewcommand*{\DTMenIEtimezonesep}{#1}}
\DTMdefkey{en-IE}{datesep}{\renewcommand*{\DTMenIEdatesep}{#1}}
\DTMdefkey{en-IE}{timesep}{\renewcommand*{\DTMenIEtimesep}{#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.

```
\DTMdefboolkey{en-IE}{abbr}[true]{}
```

The default is the full name.

```
\DTMsetbool{en-IE}{abbr}{false}
```

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

```
\DTMdefboolkey{en-IE}{mapzone}[true]{}
```

The default is to use mappings.

```
\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.)

```
\DTMdefboolkey{en-IE}{showdayofmonth}[true]{}
```

The default is to show the day of the month.

```
\DTMsetbool{en-IE}{showdayofmonth}{true}
```

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

```
\DTMdefboolkey{en-IE}{showyear}[true]{}
```

The default is to show the year.

```
\DTMsetbool{en-IE}{showyear}{true}
```

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

```
\newcommand*{\DTMenIEfmtordsuffix}[1]{#1}
```

Define a setting to change the ordinal suffix style.

```
\DTMdefchoicekey{en-IE}{ord}[\@dtm@val\@dtm@nr]{level,raise,omit,sc}{%
 \ifcase\@dtm@nr\relax
   \renewcommand*{\DTMenIEfmtordsuffix}[1]{##1}%
 \or
   \renewcommand*{\DTMenIEfmtordsuffix}[1]{%
```

```
    \DTMtexorpdfstring{\protect\textsuperscript{##1}}{##1}}%
  \or
    \renewcommand*{\DTMenIEfmtordsuffix}[1]{}%
  \or
    \renewcommand*{\DTMenIEfmtordsuffix}[1]{%
     \DTMtexorpdfstring{\protect\textsc{##1}}{##1}}%
  \fi
}
```

Define the `en-IE` style.

```
\DTMnewstyle
 {en-IE}% label
 {% date style
   \renewcommand*{\DTMenglishfmtordsuffix}{\DTMenIEfmtordsuffix}%
   \renewcommand*\DTMdisplaydate[4]{%
     \ifDTMshowdow
       \ifnum##4>-1 % space intended
        \DTMifbool{en-IE}{abbr}%
         {\DTMenglishshortweekdayname{##4}}%
         {\DTMenglishweekdayname{##4}}%
        \DTMenIEdowdaysep
       \fi
     \fi
     \DTMifbool{en-IE}{showdayofmonth}%
     {%
       \DTMenglishordinal{##3}%
       \DTMenIEdaymonthsep
     }%
     {}%
     \DTMifbool{en-IE}{abbr}%
     {\DTMenglishshortmonthname{##2}}%
     {\DTMenglishmonthname{##2}}%
     \DTMifbool{en-IE}{showyear}%
     {%
       \DTMenIEmonthyearsep\number##1 % space intended
     }%
     {}%
   }%
   \renewcommand*{\DTMDisplaydate}[4]{\DTMdisplaydate{##1}{##2}{##3}{##4}}%
 }%
 {% time style
   \renewcommand*\DTMenglishtimesep{\DTMenIEtimesep}%
   \DTMsettimestyle{englishampm}%
 }%
 {% zone style
   \DTMresetzones
   \DTMenIEzonemaps
   \renewcommand*{\DTMdisplayzone}[2]{%
     \DTMifbool{en-IE}{mapzone}%
     {\DTMusezonemapordefault{##1}{##2}}%
```

```
    {%
      \ifnum##1<0 \else+\fi\DTMtwodigits{##1}%
      \ifDTMshowzoneminutes\DTMenIEtimesep\DTMtwodigits{##2}\fi
    }%
  }%
}%
{% full style
  \renewcommand*{\DTMdisplay}[9]{%
   \ifDTMshowdate
    \DTMdisplaydate{##1}{##2}{##3}{##4}%
    \DTMenIEdatetimesep
   \fi
   \DTMdisplaytime{##5}{##6}{##7}%
   \ifDTMshowzone
    \DTMenIEtimezonesep
    \DTMdisplayzone{##8}{##9}%
   \fi
  }%
  \renewcommand*{\DTMDisplay}{\DTMdisplay}%
}%
```

Define numeric style.

```
\DTMnewstyle
{en-IE-numeric}% label
{% date style
   \renewcommand*\DTMdisplaydate[4]{%
     \DTMifbool{en-IE}{showdayofmonth}%
     {%
       \number##3 % space intended
       \DTMenIEdatesep
     }%
     {}%
     \number##2 % space intended
     \DTMifbool{en-IE}{showyear}%
     {%
       \DTMenIEdatesep
       \number##1 % space intended
     }%
     {}%
   }%
   \renewcommand*{\DTMDisplaydate}[4]{\DTMdisplaydate{##1}{##2}{##3}{##4}}%
}%
{% time style
   \renewcommand*\DTMdisplaytime[3]{%
     \number##1
     \DTMenIEtimesep\DTMtwodigits{##2}%
     \ifDTMshowseconds\DTMenIEtimesep\DTMtwodigits{##3}\fi
   }%
}%
{% zone style
```

```
  \DTMresetzones
  \DTMenIEzonemaps
  \renewcommand*{\DTMdisplayzone}[2]{%
    \DTMifbool{en-IE}{mapzone}%
    {\DTMusezonemapordefault{##1}{##2}}%
    {%
      \ifnum##1<0 \else+\fi\DTMtwodigits{##1}%
      \ifDTMshowzoneminutes\DTMenIEtimesep\DTMtwodigits{##2}\fi
    }%
  }%
}%
{% full style
  \renewcommand*{\DTMdisplay}[9]{%
   \ifDTMshowdate
    \DTMdisplaydate{##1}{##2}{##3}{##4}%
    \DTMenIEdatetimesep
   \fi
   \DTMdisplaytime{##5}{##6}{##7}%
   \ifDTMshowzone
    \DTMenIEtimezonesep
    \DTMdisplayzone{##8}{##9}%
   \fi
  }%
  \renewcommand*{\DTMDisplay}{\DTMdisplay}%
}
```

`\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.

```
\newcommand*{\DTMenIEzonemaps}{%
  \DTMdefzonemap{00}{00}{GMT}%
  \DTMdefzonemap{01}{00}{IST}%
}
```

Switch style according to the `useregional` setting.

```
\DTMifcaseregional
{}% do nothing
{\DTMsetstyle{en-IE}}%
{\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.)

```
\ifcsundef{date\CurrentTrackedDialect}
{% do nothing
  \ifundef\dateenglish
  {%
  }%
  {%
    \def\dateenglish{%
      \DTMifcaseregional
      {}% do nothing
```

```
      {\DTMsetstyle{en-IE}}%
      {\DTMsetstyle{en-IE-numeric}}%
    }%
  }%
}%
{%
  \csdef{date\CurrentTrackedDialect}{%
    \DTMifcaseregional
    {}% do nothing
    {\DTMsetstyle{en-IE}}%
    {\DTMsetstyle{en-IE-numeric}}%
  }%
}%
```

Change History

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