The `isodate` package[*]

Harald Harders
h.harders@tu-bs.de

File Date 2010-01-03, Printed 2010-01-03

Abstract

This package provides commands to switch between different date formats (standard, ISO, numeric, LaTeX package). They are used by the `\today` command, by the `\printdate` and `\printdateTeX` commands that print any date, and by the `\daterange` command that prints a date range. At the moment, this package supports German (old and new orthography, Austrian), British, US, Australian as well as New Zealand English,[1] French, Italian, Danish, Swedish, and Norwegian.

The idea for this package was taken from the akletter class.

Contents

---

[*]This file has version v2.30 last revised 2010-01-03.

[1]In order to use Australian or New Zealand, you need a version of babel that supports the used language. It should be available, soon.

Acknowledgements

First of all I have to thank Axel Kielhorn who wrote the package `akletter` which inspired me to write `isodate`. The help of Heiko Oberdiek was necessary to handle characters in substrings which resulted in the package `substr`. David Sanderson found the bug which disabled `isodate` to work without `babel`. He also helped me to improve the documentation and sent me a link to the ISO 8601 norm [1]. Svend Tollak Munkejord has added the Norwegian language, Christian Schlauer has added Swedish, Philip Ratcliffe has added Italian.

Requirements

The package `isodate` needs the package `substr.sty` which can be obtained from `CTAN:macros/latex/contrib/substr/`.

1 Commands

1.1 Switching the date output format

\isodate   This package provides five commands to switch the output format of all commands
\numdate   that print dates (described later):
\shortdate

\TeXdate
\origdate
\shortorigdate
\Romandate
\romandate
\shortRomandate
\shortromandate

\isodate	date format described in ISO 8601 and DIN 5008 [1] (yyyy-mm-dd)
\numdate	numeric date format with four digits of the year
\shortdate	short numeric date format with two digits of the year
\TeXdate	date format used for version description of packages (yyyy/mm/dd)
\origdate	original LaTeX format
\shortorigdate	original LaTeX format with two instead of four digits of

	the year
\Romandate	As \numdate but with uppercase Roman numerals for the month
\romandate	As \numdate but with lowercase Roman numerals for the month
\shortRomandate	As \shortdate but with uppercase Roman numerals for the month
\shortromandate	As \shortdate but with lowercase Roman numerals for the month

These commands *do not* print any dates and they don't take an argument. They just switch the format for later usage of the date-printing commands \today, \printdate, \printdateTeX, and \daterange.

The numeric and short numeric as well as the Roman numbered formats change their behaviour depending on the current language:

German, nGerman	dd.\,mm.~yyyy	resp.	dd.\,mm.\,yy
US English	mm/dd/yyyy	resp.	mm/dd/yy
other languages	dd/mm/yyyy	resp.	dd/mm/yy

This package supports German (old and new rules, Austrian), US English, French, Danish, Italian, Swedish, and Norwegian. Switching the language by using \selectlanguage does *not* switch back to the original date format. So the current date format stays active when changing the language.

The change of the date format works locally. So it is possible to change it locally inside a group; e.g.,

```
\today, {\origdate\today}, \today
```

leads to '2010-01-03, 3rd January 2010, 2010-01-03'.

\printyearoff
\printyearon
By default, all formats print the day, month, and year. Sometimes, you may want to print the date without the year. This can be reached by using the command \printyearoff. You can switch back with \printyearon or by using \printyearoff inside a group (e.g., an environment). To switch globally, preceed the command by \global. An example:

```
\today, {\printyearoff\today}, \today
```

leads to '3rd January 2010, 3rd January, 3rd January 2010'.

\printdayoff
\printdayon
Likewise you can switch on or off printing the day using \printdayon and \printdayoff. Note that you still have to provide complete dates in the \printdate command, described in Section 1.3 below.

1.2 Printing today's date

\today As usual, the command \today prints the date of today. Its appearance is influenced by the current date format

1.3 Printing any date

\printdate   The command \printdate{#1} prints any date in the current format. The argument may be a date in German, British English, or ISO format, e.g.,

```
\printdate{24.12.2000}
\printdate{24/12/2000}
\printdate{2000-12-24}
```

\printdateTeX   The command \printdateTeX{#1} prints any date in the actual format. The argument must be in the LATEX format yyyy/mm/dd, e.g.,

```
\printdateTeX{2000/12/24}
```

This command is useful for printing version information stored in a macro. For example the version of this package is stored in the macro \filedate ('2010/01/03'). To print it with the actual date format you can use the command \printdateTeX{\filedate} which leads to e.g., '2010-01-03' or '3rd January 2010'. Another possibility is to switch the input format to tex using \dateinputformat, described below.

1.4 Printing date ranges

\daterange   The command \daterange{#1}{#2} prints a date range in the current format. The arguments may be a date in German, British English, or ISO format (see above). But there is a limitation: Both arguments must have the same input format.

Depending on the language and date format, this commands leaves out some of the data. The simplest way to understand it is to watch some examples:

```
{\isodate
\daterange{1999-05-03}{1999-05-31} ⟶ 1999-05-03 to 31
\daterange{1999-05-03}{1999-11-03} ⟶ 1999-05-03 to 11-03
\daterange{1999-05-03}{2000-04-07} ⟶ 1999-05-03 to 2000-04-07
}
{\origdate
\daterange{1999-05-03}{1999-05-31} ⟶ 3rd to 31st May 1999
\daterange{1999-05-03}{1999-11-03} ⟶ 0503 to 3rd November 1999
\daterange{1999-05-03}{2000-04-07} ⟶ 3rd May 1999 to 7th April 2000
}
```

1.5 Changing the ISO format

\isodash   The ISO norm says that the date format is 'yyyy-mm-dd' or 'yyyymmdd' [1]. By default I use the hyphen '-' as separator. You can change this using the \isodash[2] command, e.g.,

---

[2]The name 'isodash' is a little bit confusing and was chosen due to my limited knowledge in English. It should be named 'isoseparator' or 'isosep'. But for compatiblity reasons I will not change it.

```
\printdate{24/12/2000},
\isodash{--}%
\printdate{24/12/2000},
\isodash{}%
\printdate{24/12/2000}
```

leads to '2000-12-24, 2000–12–24, 20001224'. Or for example

```
\isodash{$\cdot$}
\printdate{24/12/2000}
```

leads to '2000·12·24'.

1.6   Changing the original and short original format

\isospacebeforeday
\isospacebeforemonth
\isospacebeforeyear

By default, the original and short original format prints unbreakable spaces between the parts of the dates, e.g., '19~May~2001'. If you want to allow breakable spaces or other characters, you can redefine the spaces using \isospacebeforeday, \isospacebeforemonth, and \isospacebeforeyear:

```
\isospacebeforeyear{\ }
```

leads to '19~May\ 2001'. Notice that the space is written as \␣ to ensure that the space is not getting lost under all circumstances.

As the names imply, the spaces before the specified part (day, month, or year) is changed. For most formats, only \isospacebeforemonth and \isospacebeforeyear are relevant, while for US English, \isospacebeforeday and \isospacebeforeyear are used.

This only effects the orig and shortorig formats.

1.7   Changing the short original format

\shortyearsign

The short original format normally prints the year with two digits, e.g., '19th May 01'. Some people want to add an additional sign before the year, e.g., '19th May '01'. This can be achieved by using the command \shortyearsign, e.g.,

```
\printdate{24/12/2000},
\shortyearsign{'}%
\printdate{24/12/2000}
```

leads to '24 december 00, 24 december '00' in English.

This only effects the shortorig format. The short numerical format stays unchanged.

1.8 Changing the German format

The spacings for the numerical formats in the German language (24. 12. 2000 resp. 24. 12. 00) were taken from the Duden [2] and are the defaults when using one of the German derivatives. Some people want to use different spacings. Thus from version 2.03 on it is possible to change them. You can change the spacing between the day and the month using the command `\daymonthsepgerman`. Using the command `\monthyearsepgerman` you can change the spacing between the month and the year for the long and the short format, e.g.,

`\daymonthsepgerman`
`\monthyearsepgerman`
`\monthyearsepnodaygerman`

```
\daymonthsepgerman{\quad}%
\monthyearsepgerman{\qquad}{\quad}%
{\numdate\printdate{24.12.2000}}, {\shortdate\printdate{24.12.2000}}
```

leads to '24.   12.   2000, 24.   12.   00'.

The default values are '\,' for the separator between day and month resp. '\,' between month and year in the short format and '~' in the long format.

Likewise, `\monthyearsepnodaygerman` is used for defining the spacing between the month and the year when printing the day is switched off (using `\printdayoff`). The arguments are the same as for `\monthyearsepgerman`. Default is no space for long and short format.

1.9 Changing the English format

By default, the English date format looks like '24th December 2000'. During the last years, a change has occured in many documents towards '24 December 2000'. This new format is called 'clean look'. Isodate's behaviour can be changed towards it using `\cleanlookdateon` and `\cleanlookdateoff`. This can also be done globally using the `cleanlook` package option.

`\cleanlookdateon`
`\cleanlookdateoff`

At the moment, the 'clean look' functionality only affects British English. If this trend also counts for different languages, please tell it me that I can add support for them.

1.10 User defined month formatting

Internally, the formats using Roman numerals for the month are just links to the `\numdate` and `\shortdate` formats with a changed format for printing the month. Therefore, the command `\Romandate` calls `\numdate` by following sequence:

```
\numdate[Roman]%
\isotwodigitdayfalse
```

This tells `\numdate` to format the month using the `\Roman` command and to typeset the day without a leading zero if it is less than ten.

You may do similar things, e.g.,

```
\numdate[Alph]
```

prints the months with the command `\Alph`, 'A', 'B', ... The day is printed with two digits since every call of `\numdate` or `\shortdate` calls `\isotwodigitdaytrue` which switches printing the day with two digits on. This does not make any sence but may serve as example. If you want to enable days with one digit, append `\isotwodigitdaytrue`:

```
\numdate[Alph]%
\isotwodigitdaytrue
```

You may declare any command that typesets a counter that is given as its mandatory argument (e.g., `\alph`, `\Alph`, `\arabic`, ...) in the optional argument of the `\numdate`, `\shortdate`, `\isodate`, and `\TeXdate` commands, without the leading backslash. You can, of course, define own commands that do it. For instance,

```
{\def\boldnum#1{\textbf{\twodigitarabic{#1}}}%
\numdate[boldnum]%
\printdate{24.3.2000}}
```

`\twodigitarabic`   leas to '24/**03**/2000'. Here, the `\twodigitarabic` command has been used that prints a positive number with at least two digits.[3]

If you, for example want a numerical date format with the day and month printed with the 'natural' number of digits rather than with two digits, you may do it as follows:

```
{\numdate[arabic]\isotwodigitdayfalse
\printdate{1.2.2000}}
```

which leads to '1/2/2000'.

Using one of the other date formats reset the numerical format to its standard settings with arabic numerals (with two digits), e.g.,

```
{\numdate[Alph]\printdate{6.12.2000};
\isodate\printdate{6.12.2000};
\numdate\printdate{6.12.2000}}
```

leads to '6/L/2000; 2000-12-06; 06/12/2000'.

1.11   Switching the date input format

`\dateinputformat`   As described above, the date can be given in different formats. For the German format `dd.mm.yyyy` and the ISO format `yyyy-mm-dd`, the input format is definite. But when using slashes to seperate the day, month, and year, different formats exist. British people use `dd/mm/yyyy`, American people use `mm/dd/yyyy`, while TeX uses `yyyy/mm/dd` which in fact is an ISO format with slashes instead of dashes.

By default, the British format is used. If the user wants to give the American or TeX format as argument of the `\printdate` or `\daterange` commands, the macro `\dateinputformat` can be used to change the behaviour.

---

[3]This command is also used for the numerical date formats.

This macro takes the name of the input format as single parameter, e.g., `\dateinputformat{american}`, for switching to American behaviour, e.i., `mm/dd/yyyy`. For example,

```
\numdate
\selectlanguage{UKenglish}%
\dateinputformat{american}%
\printdate{12/31/2004}
```

gives 31/12/2004. In this example, *input* format is American while the *output* format is English.

Valid arguments for the `\dateinputformat` command are `english`, `UKenglish`, `british`, `american`, `USenglish`, `tex`, `latex`, `TeX`, `LaTeX`. The meaning of most possibilities should be clear; `english` means British English.

Beware that the input format may only be changed for the date format using slashes. Thus, you don't have to and are not allowed to specify input formats other than these described above. For example, `\dateinputformat{german}` is not allowed (and not necessary).

2   Calling the package

The package is called using the `\usepackage` command:
`\usepackage[option]{isodate}`.

The possible package options can be seen in table 2.

Be aware that at least one language option must be set when calling isodate. The last language in the option list is the default language.

The package isodate works well together with `babel.sty`, `german.sty`, or `ngerman.sty`. It does not matter if `isodate` is loaded before or after the used language package.

It is also possible to use isodate without one of the language packages. Then it is not possible to switch between languages using the `\selectlanguage` command.[4] Then the default language is the last one in the option list. If an error occurs when using isodate without one of the packages `babel.sty`, `german.sty`, and `ngerman.sty` please run `tstlang.tex` through latex and send the file `tstlang.log` to the address `h.harders@tu-bs.de`.

If using isodate together with babel it can be useful to put the language options as global options into the optional parameters of the `\documentclass` command. Then automatically the available languages are the same for the text and the dates, and the default language is also the same. For example:

```
\documentclass[english,german]{article}
\usepackage{babel}
\usepackage[num]{isodate}
```

---

[4]Yes, there is a way to change the date language, but it is a little bit tricky:
```
\makeatletter
\def\iso@languagename{german}%
\dategerman%
\makeatother
```

Table 2: Package options

option	function
iso	start with ISO date format
num	start with numeric date format with 4 digits of the year
short	start with numeric date format with 2 digits of the year
TeX	start with LaTeX numeric date format (yyyy/mm/dd)
orig	start with normal LaTeX date format (default[a])
shortorig	start with short normal LaTeX date format (2 digits)
Roman	start with numeric date format (month in uppercase Roman numerals)
roman	start with numeric date format (month in lowercase Roman numerals)
shortRoman	start with short Roman format
shortroman	start with short roman format
american	support American English date format
austrian	support Austrian date format
british	support British English date format
danish	support Danish date format
english	support British English date format
french	support French date format
german	support German date format
naustrian	support new Austrian date format
ngerman	support new German date format
italian	support Italian date format
norsk	support Norwegian date format
norwegian	support Norwegian date format
swedish	support Swedish date format
UKenglish	support British English date format
USenglish	support American English date format
inputenglish	English date input format (default)
inputbritish	English date input format (default)
inputUKenglish	English date input format (default)
inputamerican	American date input format
inputUSenglish	American date input format
inputtex	TeX date input format
inputTeX	TeX date input format
inputlatex	TeX date input format
inputLaTeX	TeX date input format
cleanlook	use 'clean look' for English dates
nocleanlook	don't use 'clean look' for English dates (default)
printdayon	print complete date including the day (default)
printdayoff	omit the day in the date

---

[a]The original format is used as default in order to avoid a different document output by just including the package.

The input format options specify the input format that is used at the begin of the document. You don't have to define multiple options if you want to change the input format in the document using `\dateinputformat`. For example,

```
\documentclass[american,german,british]{article}
\usepackage{babel}
\usepackage[iso,inputamerican]{isodate}
\begin{document}
D \printdate{28.2.2000}\par
ISO \printdate{2000-2-28}\par
US \printdate{2/28/2000}\par
\dateinputformat{british}UK \printdate{28/2/2000}\par
\dateinputformat{tex}\TeX\ \printdate{2000/2/28}
\end{document}
```

works as expected.

Beware that only the mentioned input formats are defined. For example, `inputgerman` does not exist because it is not necessary.

3 Add new languages to the package

The easiest way to add new languages to the package is to copy one of the simple language files `danish.idf` or `french.idf` to the new language name, e.g., `plattdeutsch.idf`, and change it as necessary.

This new file can be used without changing `isodate.sty` if you use its name explicitly in the optional parameter of the `\usepackage` command. If you have added support for a new language please mail me.

A Licence

Copyright 2000–2010 Harald Harders

This program can be redistributed and/or modified under the terms of the LaTeX Project Public License Distributed from CTAN archives in directory macros/latex/base/lppl.txt; either version 1 of the License, or any later version.

B Known errors

- The `\printdate` and `\printdateTeX` commands are not very good in checking the argument for correct syntax.

- The language definition files `french.idf` and `german.idf` are not yet commented.

- Isodate and draftcopy do not work together.

- Documentation of the code is partly poor.

C Planned features and changes

- Add other languages. Please help me with this topic. I don't know the date formats in other languages.

- Format short given years to four digits and calculate reasonable first and second digits.

References

[1] International Standard: ISO 8601. `http://www.iso.ch/markete/8601.pdf`, 1988-06-15.

[2] DUDEN Band 1. Die deutsche Rechtschreibung. 21. Auflage, Dudenverlag, Mannheim, Germany, 1996.

D The implementation

D.1 Package file isodate.sty

Heading of the files:

```
1 ⟨isodate⟩\NeedsTeXFormat{LaTeX2e}
2 ⟨isodate⟩\ProvidesPackage{isodate}
3 ⟨danish⟩\ProvidesFile{danish.idf}
4 ⟨english⟩\ProvidesFile{english.idf}
5 ⟨french⟩\ProvidesFile{french.idf}
6 ⟨german⟩\ProvidesFile{german.idf}
7 ⟨italian⟩\ProvidesFile{italian.idf}
8 ⟨norsk⟩\ProvidesFile{norsk.idf}
9 ⟨swedish⟩\ProvidesFile{swedish.idf}
10 ⟨isodate⟩  [2010/01/03  v2.30  Print dates with different formats (HH)]
11 ⟨language⟩  [2010/01/03  v2.30  Language definitions for isodate package (HH)]
```

The package:

```
12 ⟨*isodate⟩
13 \RequirePackage{ifthen}
14 \IfFileExists{substr.sty}{\RequirePackage{substr}%
15  }{\PackageError{isodate.sty}{Package file substr.sty not found}
16    {This version of isodate.sty needs the package substr.sty.^^J%
17      You can download it from
18      CTAN:/macros/latex/contrib/substr/^^J%
19      e.g., one CTAN node is ftp.dante.de.
20      Install substr.sty into your TeX tree.}}
```

Declare the options for the default date format.

```
21 \DeclareOption{iso}{\AtEndOfPackage{\isodate}}
22 \DeclareOption{num}{\AtEndOfPackage{\numdate}}
23 \DeclareOption{short}{\AtEndOfPackage{\shortdate}}
```

```
24 \DeclareOption{TeX}{\AtEndOfPackage{\TeXdate}}
25 \DeclareOption{orig}{\AtEndOfPackage{\origdate}}
26 \DeclareOption{shortorig}{\AtEndOfPackage{\shortorigdate}}
27 \DeclareOption{Roman}{\AtEndOfPackage{\Romandate}}
28 \DeclareOption{roman}{\AtEndOfPackage{\romandate}}
29 \DeclareOption{shortRoman}{\AtEndOfPackage{\shortRomandate}}
30 \DeclareOption{shortroman}{\AtEndOfPackage{\shortromandate}}
31 \DeclareOption{cleanlook}{\AtEndOfPackage{\cleanlookdateon}}
32 \DeclareOption{nocleanlook}{\AtEndOfPackage{\cleanlookdateoff}}
```

Declare the options which decide wheather day is printed.

```
33 \DeclareOption{printdayoff}{\AtEndOfPackage{\printdayoff}}
34 \DeclareOption{printdayon}{\AtEndOfPackage{\printdayon}}
```

Declare the options for the default date input format.

```
35 \DeclareOption{inputenglish}{\AtEndOfPackage{\dateinputformat{english}}}
36 \DeclareOption{inputbritish}{\AtEndOfPackage{\dateinputformat{english}}}
37 \DeclareOption{inputUKenglish}{\AtEndOfPackage{\dateinputformat{english}}}
38 \DeclareOption{inputamerican}{\AtEndOfPackage{\dateinputformat{american}}}
39 \DeclareOption{inputUSenglish}{\AtEndOfPackage{\dateinputformat{american}}}
40 \DeclareOption{inputtex}{\AtEndOfPackage{\dateinputformat{tex}}}
41 \DeclareOption{inputTeX}{\AtEndOfPackage{\dateinputformat{tex}}}
42 \DeclareOption{inputlatex}{\AtEndOfPackage{\dateinputformat{tex}}}
43 \DeclareOption{inputLaTeX}{\AtEndOfPackage{\dateinputformat{tex}}}
```

Declare the options for language support.

```
44 \DeclareOption{american}{\input{english.idf}}
45 \DeclareOption{australian}{\input{english.idf}}
46 \DeclareOption{austrian}{\input{german.idf}}
47 \DeclareOption{danish}{\input{danish.idf}}
48 \DeclareOption{english}{\input{english.idf}}
49 \DeclareOption{british}{\input{english.idf}}
50 \DeclareOption{french}{\input{french.idf}}
51 \DeclareOption{frenchb}{\input{french.idf}}
52 \DeclareOption{german}{\input{german.idf}}
53 \DeclareOption{italian}{\input{italian.idf}}
54 \DeclareOption{naustrian}{\input{german.idf}}
55 \DeclareOption{newzealand}{\input{english.idf}}
56 \DeclareOption{ngerman}{\input{german.idf}}
57 \DeclareOption{norsk}{\input{norsk.idf}}
58 \DeclareOption{norwegian}{\input{norsk.idf}}
59 \DeclareOption{swedish}{\input{swedish.idf}}
60 \DeclareOption{UKenglish}{\input{english.idf}}
61 \DeclareOption{USenglish}{\input{english.idf}}
```

Make it possible to load language definition files that are not known by this package.

```
62 \DeclareOption*{%
63   \InputIfFileExists{\CurrentOption.idf}{}{%
64     \PackageError{isodate}{%
65       Isodate definition file \CurrentOption.idf not found}{%
```

```
66        Maybe you misspelled the language option?}}%
67   }
```

Set default option to `orig`.

```
68 \ExecuteOptions{orig,nocleanlook,printdayon}
```

Process the options.

```
69 \ProcessOptions*
```

Handle the case that no language was given. Throw an error message. Each language definition file *.idf must contain a line

```
\let\iso@languageloaded\active
```

that defines the command `\iso@languageloaded`.

```
70 \ifx\iso@languageloaded\@undefined
71   \PackageError{isodate}{%
72     You haven't specified a language option}{%
73     You need to specify a language, either as a global
74     option\MessageBreak
75     or as an optional argument to the \string\usepackage\space
76     command.\MessageBreak
77     If you have used the old isodate package (version <=1.06) you can
78     change the\MessageBreak
79     usepackage command to \protect\usepackage{isodate}.\MessageBreak
80     You shouldn't try to proceed from here, type x to quit.}
81 \fi
```

`\iso@printday`   Prints a day.

```
82 \newcommand*\iso@printday[1]{%
83   \ifisotwodigitday
84     \ifthenelse{\number#1<10}{0}{}%
85   \fi
86   \number#1%
87 }%
```

`\twodigitarabic`   Typesets the given counter with at least two digits. This command is very simple and does only work for positive numbers below 100.

```
88 \newcommand*\twodigitarabic[1]{%
89   \ifthenelse{\number\arabic{#1}<10}{0}{}%
90   \arabic{#1}%
91 }
```

`\iso@printmonth`   Prints a month using `\theiso@tmpmonth` as output fourmat.

```
92 \newcommand*\iso@printmonth[1]{%
93   \setcounter{iso@tmpmonth}{#1}%
94   \theiso@tmpmonth%
95 }
```

Define the help counter that prints the month and initialize it to print arabic numbers.

```
96 \newcounter{iso@tmpmonth}
97 %\def\theiso@tmpmonth{\arabic{iso@tmpmonth}}
```

\iso@yeartwo Prints the argument of the command with two digits.

Example: \iso@yeartwo{1873} ⟶ 73.

```
98 \newcounter{iso@yeartwo}%
99 \newcommand*\iso@yeartwo[1]{%
100   \setcounter{iso@yeartwo}{\number#1}%
101   \whiledo{\theiso@yeartwo>99}{%
102     \addtocounter{iso@yeartwo}{-100}}{}%
103   \ifthenelse{\number\theiso@yeartwo<10}{0}{}\theiso@yeartwo
104 }
```

\iso@yearfour Prints the argument of the command with four digits.

```
105 \newcommand*\iso@yearfour[1]{%
106   \ifthenelse{\number#1<1000}{0}{}%
107   \ifthenelse{\number#1<100}{0}{}%
108   \ifthenelse{\number#1<10}{0}{}%
109   \number#1%
110 }%
```

\ifisotwodigitday Print day with two digits or natural number of digits?

```
111 \newif\ifisotwodigitday
```

\iso@dateformat In this command, the current active date format ist stored. Possible values are: numeric, short, iso, orig, shortorig, TeX.

```
112 \def\iso@dateformat{numeric}
```

\iso@inputformat This macro stores which input format is used for dates given with slashes. Valid formats are english (dd/mm/yyyy), american (mm/dd/yyyy), and tex (yyyy/mm/dd). By default, English is used.

```
113 \DeclareRobustCommand*\dateinputformat[1]{%
114   \ifthenelse{%
115     \equal{#1}{english}\OR
116     \equal{#1}{british}\OR
117     \equal{#1}{UKenglish}}{%
118     \def\iso@inputformat{english}%
119   }{%
120     \ifthenelse{%
121       \equal{#1}{american}\OR
122       \equal{#1}{USenglish}}{%
123       \def\iso@inputformat{american}%
124     }{%
125       \ifthenelse{%
126         \equal{#1}{tex}\OR
127         \equal{#1}{TeX}\OR
```

```
128         \equal{#1}{latex}\OR
129         \equal{#1}{LaTeX}}{%
130         \def\iso@inputformat{tex}%
131       }{%
132         \PackageError{isodate}{Invalid date input format}{%
133           Maybe you misspelled the language option (english, american,
134           tex)?}%
135       }%
136     }%
137   }%
138 }
```

\iso@inputformat   This macro stores which input format is used for dates given with slashes.
                    Valid formats are english (dd/mm/yyyy), american (mm/dd/yyyy), and tex
                    (yyyy/mm/dd). By default, English is used.

```
139 \dateinputformat{english}
```

\numdate   Switches to long numerical date format.

```
140 \DeclareRobustCommand*\numdate[1][twodigitarabic]{%
141   \def\iso@dateformat{numeric}%
142   \isotwodigitdaytrue
143   \def\theiso@tmpmonth{\csname #1\endcsname{iso@tmpmonth}}%
144 }
```

\shortdate   Switches to short numerical date format.

```
145 \DeclareRobustCommand*\shortdate[1][twodigitarabic]{%
146   \def\iso@dateformat{short}%
147   \isotwodigitdaytrue
148   \def\theiso@tmpmonth{\csname #1\endcsname{iso@tmpmonth}}%
149 }
```

\isodate   Switches to ISO date format.

```
150 \DeclareRobustCommand*\isodate[1][twodigitarabic]{%
151   \def\iso@dateformat{iso}%
152   \isotwodigitdaytrue
153   \def\theiso@tmpmonth{\csname #1\endcsname{iso@tmpmonth}}%
154 }
```

\origdate   Switches to the original date format.

```
155 \DeclareRobustCommand*\origdate{%
156   \def\iso@dateformat{orig}%
157   \isotwodigitdayfalse
158   \def\theiso@tmpmonth{\twodigitarabic{iso@tmpmonth}}%
159 }
```

\shortorigdate Switches to the short original date format.

```
160 \DeclareRobustCommand*\shortorigdate{%
161   \def\iso@dateformat{shortorig}%
162   \isotwodigitdayfalse
163   \def\theiso@tmpmonth{\twodigitarabic{iso@tmpmonth}}%
164 }
```

q

\TeXdate Switches to LATEX date format.

```
165 \DeclareRobustCommand*\TeXdate[1][twodigitarabic]{%
166   \def\iso@dateformat{TeX}%
167   \isotwodigitdaytrue
168   \def\theiso@tmpmonth{\csname #1\endcsname{iso@tmpmonth}}%
169 }
```

\Romandate Switches to long numerical date format with month printed in uppercase Roman numerals.

```
170 \DeclareRobustCommand*\Romandate{%
171   \numdate[Roman]%
172   \isotwodigitdayfalse
173 }
```

\romandate Switches to long numerical date format with month printed in lowercase Roman numerals.

```
174 \DeclareRobustCommand*\romandate{%
175   \numdate[roman]%
176   \isotwodigitdayfalse
177 }
```

\shortRomandate Switches to short numerical date format with month printed in uppercase Roman numerals.

```
178 \DeclareRobustCommand*\shortRomandate{%
179   \shortdate[Roman]%
180   \isotwodigitdayfalse
181 }
```

\shortromandate Switches to short numerical date format with month printed in lowercase Roman numerals.

```
182 \DeclareRobustCommand*\shortromandate{%
183   \shortdate[roman]%
184   \isotwodigitdayfalse
185 }
```

\isodash Changes the dash in the ISO date format. The default is '-'.

```
186 \def\iso@isodash{-}%
187 \DeclareRobustCommand*\isodash[1]{\def\iso@isodash{#1}}%
```

Define the sign that is printed before a two digit year in the short original format. Default is nothing.

\shortyearsign

```
188 \def\iso@twodigitsign{}
189 \DeclareRobustCommand*\shortyearsign[1]{\def\iso@twodigitsign{#1}}%
```

\isorangesign Defines the sign or word that is printed between the two dates in a date range. e.g., in English the default is ' to '.

```
190 \def\iso@rangesign{\csname iso@rangesign@\iso@languagename\endcsname}%
191 \DeclareRobustCommand*\isorangesign[1]{\def\iso@rangesign{#1}}%
```

\printyearoff Switches printing of the year on or off. Default is to print the year.
\printyearon

```
192 \newif\ifiso@printyear
193 \DeclareRobustCommand*\printyearon{\iso@printyeartrue}
194 \DeclareRobustCommand*\printyearoff{\iso@printyearfalse}
195 \printyearon
```

\printdayoff Switch on or off suppressing the day in date output. Default is not print the day.
\printdayon

```
196 \newif\ifiso@doprintday
197 \DeclareRobustCommand*\printdayon{\iso@doprintdaytrue}
198 \DeclareRobustCommand*\printdayoff{\iso@doprintdayfalse}
199 \printdayon
```

\cleanlookdateoff Switch on or off 'clean look' for English dates. Default is not to use 'clean look'.
\cleanlookdateon

```
200 \newif\ifiso@cleanlook
201 \DeclareRobustCommand*\cleanlookdateon{\iso@cleanlooktrue}
202 \DeclareRobustCommand*\cleanlookdateoff{\iso@cleanlookfalse}
203 \cleanlookdateoff
```

\isospacebeforeday Change the spaces in the orig and short orig format. Default is ~ for all of them.
\isospacebeforemonth
\isospacebeforeyear

```
204 \newcommand*\iso@daysep{~}
205 \newcommand*\iso@monthsep{~}
206 \newcommand*\iso@yearsep{~}
207 \DeclareRobustCommand*\isospacebeforeday[1]{\def\iso@daysep{#1}}
208 \DeclareRobustCommand*\isospacebeforemonth[1]{\def\iso@monthsep{#1}}
209 \DeclareRobustCommand*\isospacebeforeyear[1]{\def\iso@yearsep{#1}}
```

\iso@printdate Defines the command iso@printdate which takes three arguments (year, month, day) and prints the date by using the \today command.

```
210 \newcommand*\iso@printdate[3]{%
211   \begingroup%
```

Generate a warning if the active language is not known by isodate.

```
212     \@ifundefined{iso@printdate@\iso@languagename}{%
213       \PackageWarning{isodate}{Language \iso@languagename\space unknown
214         to isodate.\MessageBreak
215         Using default format}%
216     }{}%
```

17

The counters \year, \month, and \day are preserved as counters instead of changed to macros (as it has been done until version 2.25) to avoid problems with languages that are not defined in isodate.sty.

```
217      \year=#1 %
218      \month=#2 %
219      \day=#3 %
220      \today%
221    \endgroup%
222 }
```

\printdate Prints a date that is given as one argument in one of these formats: yyyy-mm-dd, dd/mm/yyyy, dd.mm.yyyy.

```
223 \DeclareRobustCommand*\printdate[1]{%
```

Define \iso@date command to expand the argument #1.

```
224    \edef\iso@date{#1}%
```

Count appearances of '/', '-', and '.' in the argument.

```
225    \SubStringsToCounter{iso@slash}{/}{\iso@date}%
226    \SubStringsToCounter{iso@minus}{-}{\iso@date}%
227    \SubStringsToCounter{iso@dot}{.}{\iso@date}%
```

If number of '.' in the argument is equal to 2 then the German format dd.mm.yyyy is used.

```
228    \ifthenelse{\equal{\theiso@dot}{2}}{%
229      \expandafter\iso@input@german\iso@date\@empty}{%
```

If number of '-' in the argument is equal to 2 then the ISO format yyyy-mm-dd is used.

```
230      \ifthenelse{\equal{\theiso@minus}{2}}{%
231        \expandafter\iso@input@iso\iso@date\@empty}{%
```

If number of '/' in the argument is equal to 2 then the British English format dd/mm/yyyy is used.

```
232      \ifthenelse{\equal{\theiso@slash}{2}}{%
233        \expandafter\iso@input@english\iso@date\@empty}{%
```

Else no of the formats above is used an thus an error message is thrown.

```
234        ????\iso@isodash ??\iso@isodash ??%
235        \PackageError{isodate}{unrecognized date format}{Use one of
236          the following formats as macro argument:^^J%
237          \space\space dd.mm.yyyy^^J%
238          \space\space dd/mm/yyyy^^J%
239          \space\space yyyy-mm-dd^^J%
240          Don't use any spaces or commands like \protect\, or
241          \protect~ inside the argument.}%
242        }}}%
243 }
```

\iso@input@iso Converts a string with the format yyyy-mm-dd to three arguments {#1}{#2}{#3} and calls \iso@printdate.

```
244 \def\iso@input@iso#1-#2-#3\@empty{\iso@printdate{#1}{#2}{#3}}
```

\iso@input@german Converts a string with the format dd.mm.yyyy to three arguments {#3}{#2}{#1} and calls \iso@printdate.

```
245 \def\iso@input@german#1.#2.#3\@empty{\iso@printdate{#3}{#2}{#1}}
```

\iso@input@english Converts a string with the format dd/mm/yyyy to three arguments {#3}{#2}{#1} and calls \iso@printdate.

```
246 \def\iso@input@english#1/#2/#3\@empty{%
247   \ifthenelse{\equal{\iso@inputformat}{tex}}{%
248     \iso@printdate{#1}{#2}{#3}%
249   }{%
250     \ifthenelse{\equal{\iso@inputformat}{american}}{%
251       \iso@printdate{#3}{#1}{#2}%
252     }{%
253       \iso@printdate{#3}{#2}{#1}%
254     }%
255   }%
256 }
```

\printdateTeX Prints a date that is given as one argument in the format yyyy/mm/dd.

```
257 \DeclareRobustCommand*\printdateTeX[1]{%
```

Define \iso@date command to expand the argument #1.

```
258   \edef\iso@date{#1}%
```

Count appearances of '/' in the argument.

```
259   \SubStringsToCounter{iso@slash}{/}{\iso@date}%
```

If number of '/' in the argument is equal to 2 then the LaTeX format yyyy/mm/dd is used.

```
260   \ifthenelse{\equal{\theiso@slash}{2}}{%
261     \expandafter\iso@input@TeX\iso@date\@empty}{%
```

Else no of the formats above is used an thus an error message is thrown.

```
262     ????\iso@isodash ??\iso@isodash ??%
263     \PackageError{isodate}{unrecognized date format}{Use one of
264       the following formats as macro argument:^^J%
265       \space\space dd.mm.yyyy^^J%
266       \space\space dd/mm/yyyy^^J%
267       \space\space yyyy-mm-dd^^J%
268       Don't use any spaces or commands like \protect\, or
269       \protect~ inside the argument.}%
270   }}
```

\iso@input@TeX Converts a string with the format yyyy/mm/dd to three arguments {#1}{#2}{#3} and calls \iso@printdate.

```
271 \def\iso@input@TeX#1/#2/#3\@empty{\iso@printdate{#1}{#2}{#3}}
```

\iso@printmonthday@int ??????

```
272 \def\iso@printmonthday@int#1#2{%
273   \ifthenelse{\equal{\iso@dateformat}{iso}}{%
```

19

```
274     \iso@printmonth{#1}%
275     \ifiso@doprintday
276       \iso@isodash\iso@printday{#2}%
277     \fi
278   }{%
279     \ifthenelse{\equal{\iso@dateformat}{TeX}}{%
280       \iso@printmonth{#1}%
281       \ifiso@doprintday
282         /\iso@printday{#2}%
283       \fi
284     }{%
285       \PackageError{isodate.sty}{\csname iso@printmonthday\endcsname:
286         Invalid date format `\iso@dateformat'}{Internal error. Please
287         report to the package author.}
288     }%
289   }%
290 }
```

\iso@printdate@int   ??????

```
291 \def\iso@printdate@int#1#2#3{%
292   \ifiso@printyear
293     \ifthenelse{\equal{\iso@dateformat}{iso}}{%
294       \iso@yearfour{\number#1}\iso@isodash%
295     }{%
296       \ifthenelse{\equal{\iso@dateformat}{TeX}}{%
297         \iso@yearfour{\number#1}/%
298       }{%
299         \PackageError{isodate.sty}{\csname iso@printmonthday\endcsname:
300           Invalid date format `\iso@dateformat'}{Internal error. Please
301           report to the package author.}
302       }%
303     }%
304   \fi
305   \csname iso@printmonthday@int\endcsname{\number#2}{\number#3}%
306 }
```

\iso@daterange@int   ??????

```
307 \def\iso@daterange@int#1#2#3#4#5#6{%
308   \ifthenelse{\equal{\iso@dateformat}{iso}\OR
309               \equal{\iso@dateformat}{TeX}}{%
310     \csname iso@printdate@\iso@languagename\endcsname{#1}{#2}{#3}%
311     \iso@rangesign%
312     \ifthenelse{\equal{\number#1}{\number#4}}{%
313       \ifthenelse{\equal{\number#2}{\number#5}}{%
314         \ifiso@doprintday
315           \iso@printday{#6}%
316         \else
317           \iso@printmonthday@int{#5}{#6}%
318         \fi
319       }{%
```

```
320            \iso@printmonthday@int{#5}{#6}%
321          }%
322        }{%
323          \iso@printdate@int{#4}{#5}{#6}%
324        }%
325      }{%
326        \PackageError{isodate.sty}{\csname iso@printmonthday\endcsname:
327          Invalid date format '\iso@dateformat'}{Internal error. Please
328          report to the package author.}
329      }%
330    }
```

\daterange   Prints a date range.

```
331 \DeclareRobustCommand*\daterange[2]{%
```

Define `\iso@date` and `\iso@@date` commands to expand the argument #1 and #2. Define `\iso@@@date` which contains both arguments devided by a komma.

```
332    \edef\iso@date{#1}%
333    \edef\iso@@date{#2}%
334    \edef\iso@@@date{\iso@date,\iso@@date}%
```

Count appearances of '/', '-', and '.' in the arguments.

```
335    \SubStringsToCounter{iso@slash}{/}{\iso@date}%
336    \SubStringsToCounter{iso@minus}{-}{\iso@date}%
337    \SubStringsToCounter{iso@dot}{.}{\iso@date}%
338    \SubStringsToCounter{iso@@slash}{/}{\iso@@date}%
339    \SubStringsToCounter{iso@@minus}{-}{\iso@@date}%
340    \SubStringsToCounter{iso@@dot}{.}{\iso@@date}%
```

If number of '.' in both arguments is equal to 2 then the German format dd.mm.yyyy is used.

```
341    \ifthenelse{\equal{\theiso@dot}{2}\AND\equal{\theiso@@dot}{2}}{%
342      \expandafter\iso@range@input@german\iso@@@date\@empty}{%
```

If number of '-' in both arguments is equal to 2 then the ISO format yyyy-mm-dd is used.

```
343      \ifthenelse{\equal{\theiso@minus}{2}\AND\equal{\theiso@@minus}{2}}{%
344        \expandafter\iso@range@input@iso\iso@@@date\@empty}{%
```

If number of '/' in both arguments is equal to 2 then the British English format dd/mm/yyyy is used.

```
345        \ifthenelse{\equal{\theiso@slash}{2}\AND
346                    \equal{\theiso@@slash}{2}}{%
347          \expandafter\iso@range@input@english\iso@@@date\@empty}{%
```

Else no of the formats above is used an thus an error message is thrown.

```
348          ????\iso@isodash ??\iso@isodash ??%
349          \PackageError{isodate}{unrecognized date format}{Use one of
350            the following formats as macro argument:^^J%
351            \space\space dd.mm.yyyy^^J%
352            \space\space dd/mm/yyyy^^J%
353            \space\space yyyy-mm-dd^^J%
```

```
354                Don't use any spaces or commands like \protect\, or
355                \protect~ inside the argument.^^J
356                Use the same format for both arguments.}%
357            }}}%
358 }
```

\iso@range@input@iso   Converts a string with the format yyyy-mm-dd,yyyy-mm-dd to six arguments {#1}{#2}{#3}{#4}{#5}{#6} and calls \iso@daterange@language.

```
359 \def\iso@range@input@iso#1-#2-#3,#4-#5-#6\@empty{%
360   \begingroup
```

Generate a warning if the active language is not known by isodate.

```
361       \@ifundefined{iso@daterange@\iso@languagename}{%
362         \PackageWarning{isodate}{Language \iso@languagename\space unknown
363           to isodate.\MessageBreak
364           Using default date range\MessageBreak
365           with range sign --}%
366         \expandafter\def\csname iso@printdate@\iso@languagename\endcsname{}%
```

Print date range in fall-back format.

```
367       \iso@printdate{#1}{#2}{#3}--\iso@printdate{#4}{#5}{#6}%
368     }{%
```

Print date range in the chosen isodate format.

```
369       \ifthenelse{\equal{\number#1}{\number#4}}{}{\printyearon}%
370       \csname iso@daterange@\iso@languagename\endcsname{%
371         #1}{#2}{#3}{#4}{#5}{#6}%
372     }%
373   \endgroup
374 }
```

\iso@range@input@german   Converts a string with the format dd.mm.yyyy,dd.mm.yyyy to six arguments {#3}{#2}{#1}{#6}{#5}{#4} and calls \iso@daterange@language.

```
375 \def\iso@range@input@german#1.#2.#3,#4.#5.#6\@empty{%
376   \begingroup
```

Generate a warning if the active language is not known by isodate.

```
377       \@ifundefined{iso@daterange@\iso@languagename}{%
378         \PackageWarning{isodate}{Language \iso@languagename\space unknown
379           to isodate.\MessageBreak
380           Using default date range\MessageBreak
381           with range sign --}%
382         \expandafter\def\csname iso@printdate@\iso@languagename\endcsname{}%
```

Print date range in fall-back format.

```
383       \iso@printdate{#3}{#2}{#1}--\iso@printdate{#6}{#5}{#4}%
384     }{%
```

Print date range in the chosen isodate format.

```
385       \ifthenelse{\equal{\number#3}{\number#6}}{}{\printyearon}%
386       \csname iso@daterange@\iso@languagename\endcsname{%
387         #3}{#2}{#1}{#6}{#5}{#4}%
```

```
388        }%
389     \endgroup
390 }
```

\iso@range@input@english Converts a string with the format `dd/mm/yyyy,dd/mm/yyyy` to six arguments
`{#3}{#2}{#1}{#6}{#5}{#4}` and calls `\iso@daterange@language`.

```
391 \def\iso@range@input@english#1/#2/#3,#4/#5/#6\@empty{%
392     \begingroup
```

Generate a warning if the active language is not known by `isodate`.

```
393        \@ifundefined{iso@daterange@\iso@languagename}{%
394          \PackageWarning{isodate}{Language \iso@languagename\space unknown
395            to isodate.\MessageBreak
396            Using default date range\MessageBreak
397            with range sign --}%
398          \expandafter\def\csname iso@printdate@\iso@languagename\endcsname{}%
```

Print date range in fall-back format.

```
399          \ifthenelse{\equal{\iso@inputformat}{tex}}{%
400            \iso@printdate{#1}{#2}{#3}--\iso@printdate{#4}{#5}{#6}%
401          }{%
402            \ifthenelse{\equal{\iso@inputformat}{american}}{%
403              \iso@printdate{#3}{#1}{#2}--\iso@printdate{#6}{#4}{#5}%
404            }{%
405              \iso@printdate{#3}{#2}{#1}--\iso@printdate{#6}{#5}{#4}%
406            }%
407          }%
408        }{%
```

Print date range in the chosen `isodate` format.

```
409          \ifthenelse{\equal{\number#3}{\number#6}}{}{\printyearon}%
410          \ifthenelse{\equal{\iso@inputformat}{tex}}{%
411            \csname iso@daterange@\iso@languagename\endcsname{%
412              #1}{#2}{#3}{#4}{#5}{#6}%
413          }{%
414            \ifthenelse{\equal{\iso@inputformat}{american}}{%
415              \csname iso@daterange@\iso@languagename\endcsname{%
416                #3}{#1}{#2}{#6}{#4}{#5}%
417            }{%
418              \csname iso@daterange@\iso@languagename\endcsname{%
419                #3}{#2}{#1}{#6}{#5}{#4}%
420            }%
421          }%
422        }%
423     \endgroup
424 }
```

Define the counters for conting the appearances of '.', '-', and '/' in the arguments.

```
425 \newcounter{iso@slash}
426 \newcounter{iso@minus}
427 \newcounter{iso@dot}
```

23

```
428 \newcounter{iso@@slash}
429 \newcounter{iso@@minus}
430 \newcounter{iso@@dot}
```

The command `\iso@languagename` is defined to be able to use this package without loading one of the language packages babel.sty, german.sty, or ngerman.sty.

If neither babel.sty nor german.sty nor ngerman.sty is loaded my computer returns 'nohyphenation' when using `\languagename`. So this is the indication that none of the above packages is loaded.

```
431 \AtBeginDocument{%
432   \@tempswafalse
433   \@ifpackageloaded{babel}{%
434     \@tempswatrue
435     \typeout{isodate: babel.sty has been loaded}%
436   }{}%
437   \@ifpackageloaded{german}{%
438     \@tempswatrue
439     \typeout{isodate: german.sty has been loaded}%
440   }{}%
441   \@ifpackageloaded{ngerman}{%
442     \@tempswatrue
443     \typeout{isodate: ngerman.sty has been loaded}%
444   }{}%
```

The language is not equal 'nohyphenation'. So one of the language packages is loaded. Replace the internal language name `\iso@languagename` by the global language name `\languagename`.

```
445   \if@tempswa
446     \gdef\iso@languagename{\languagename}%
```

Reload language to surely switch to new date format. The languagename gets first expanded because of errors that would occur otherwise.

```
447     \edef\iso@tmplang{\languagename}%
448     \expandafter\selectlanguage\expandafter{\iso@tmplang}%
449   \else
```

At the end of the preamble still none of the language packages are loaded. So no language switching is possible. Set the date language manually to the last language that was loaded for isodate.

```
450     \typeout{isodate: babel.sty, (n)german.sty have not been loaded}%
451     \csname date\iso@languagename\endcsname%
452   \fi
453 }
454 ⟨/isodate⟩
```

D.2   Language definition file danish.idf

\iso@languageloaded   Define the command `\iso@languageloaded` in order to enable `isodate.sty` to determine if at least one language is loaded.

```
455 ⟨*danish⟩
```

24

```
456 \let\iso@languageloaded\active
457 \typeout{Define commands for Danish date format}
```

\month@danish Prints the name of today's month in the long form for the original date format.

```
458 \def\month@danish{\ifcase\month\or
459     januar\or februar\or marts\or april\or maj\or juni\or
460     juli\or august\or september\or oktober\or november\or december\fi}
```

\iso@printmonthday@danish Prints the month and the day given as two arguments ({mm}{dd}) in the current date format.

```
461 \def\iso@printmonthday@danish#1#2{%
462    \ifthenelse{\equal{\iso@dateformat}{iso}\OR
463               \equal{\iso@dateformat}{TeX}}{%
464    \iso@printmonthday@int{#1}{#2}%
465    }{%
```

Numeric and short date format: dd/mm/

```
466        \ifthenelse{\equal{\iso@dateformat}{numeric}\OR
467                  \equal{\iso@dateformat}{short}}{%
468        \ifiso@doprintday
469          \iso@printday{#2}/%
470        \fi
471        \iso@printmonth{#1}%
472      }{%
```

Original date format: d. mmm

```
473        \ifthenelse{\equal{\iso@dateformat}{orig}\OR
474                  \equal{\iso@dateformat}{shortorig}}{%
475        \ifiso@doprintday
476          \iso@printday{#2}.\iso@monthsep
477        \fi
478        \begingroup
479        \edef\lmonth{#1}\def\month{\lmonth}%
480        \month@danish%
481        \endgroup
482      }{}%
483    }%
484    }%
485 }
```

\iso@printdate@danish Prints the date given as three arguments ({yyyy}{mm}{dd}) in the actual date format

```
486 \def\iso@printdate@danish#1#2#3{%
```

ISO or LaTeXdate format: yyyy\iso@printmonthday@danish

```
487    \ifthenelse{\equal{\iso@dateformat}{iso}\OR
488               \equal{\iso@dateformat}{TeX}}{%
489    \iso@printdate@int{#1}{#2}{#3}%
490    }{%
491    \iso@printmonthday@danish{\number#2}{\number#3}%
492    \ifiso@printyear
```

25

?????

```
493        \ifthenelse{\equal{\iso@dateformat}{orig}\OR
494                   \equal{\iso@dateformat}{shortorig}}{%
495        }{%
496          /%
497        }%
```

numeric date format: \iso@printmonthday@danish yyyy

```
498        \ifthenelse{\equal{\iso@dateformat}{numeric}}{%
499          \iso@yearfour{\number#1}%
500        }{%
```

original date format: \iso@printmonthday@danish~yyyy

```
501          \ifthenelse{\equal{\iso@dateformat}{orig}}{%
502            \iso@yearsep\iso@yearfour{\number#1}%
503          }{%
```

short original date format: \iso@printmonthday@danish~yy

```
504            \ifthenelse{\equal{\iso@dateformat}{shortorig}}{%
505              \iso@yearsep\iso@twodigitsign\iso@yeartwo{\number#1}%
506            }{%
```

short date format: \iso@printmonthday@danish yy

```
507              \ifthenelse{\equal{\iso@dateformat}{short}}{%
508                \iso@yeartwo{\number#1}%
509              }{}%
510            }%
511          }%
512        }%
513    \fi
514  }%
515 }
```

\iso@datedanish   This command redefines the \today command to print in the actual date format.

```
516 \def\iso@datedanish{%
517   \def\today{\iso@printdate@danish{\year}{\month}{\day}}}%
```

\iso@daterange@...   Define date-range commands for dialects.

```
518 \expandafter\def\csname iso@daterange@\CurrentOption\endcsname{%
519   \iso@daterange@danish}%
```

\iso@daterange@danish   This command takes six arguments ({yyyy1}{mm1}{dd1}{yyyy2}{mm2}{dd2}) and prints the corrosponding date range in the actual date format.

```
520 \def\iso@daterange@danish#1#2#3#4#5#6{%
```

ISO or LATEX date format.

```
521   \ifthenelse{\equal{\iso@dateformat}{iso}\OR
522             \equal{\iso@dateformat}{TeX}}{%
```

Call the appropriate international routine.

```
523     \iso@daterange@int{#1}{#2}{#3}{#4}{#5}{#6}%
524   }{%
```

Numeric, short, or original date format.

If year and month are equal, only print the day of the start date. If only the year is equal, only print month and day of the start date. Otherwise print the whole start date.

```
525     \ifthenelse{\equal{\number#1}{\number#4}}{%
526       \ifthenelse{\equal{\number#2}{\number#5}}{%
527         \ifiso@doprintday
528           \ifthenelse{\equal{\iso@dateformat}{orig}\OR
529                       \equal{\iso@dateformat}{shortorig}}{%
530             \iso@printday{#3}.%
531           }{%
532             \iso@printday{#3}%
533           }%
534         \else
535           \iso@printmonthday@danish{#2}{#3}%
536         \fi
537       }{%
538         \iso@printmonthday@danish{#2}{#3}%
539       }%
540     }{%
541       \csname iso@printdate@\iso@languagename\endcsname{#1}{#2}{#3}%
542     }%
```

Print the end date.

```
543     \iso@rangesign
544     \csname iso@printdate@\iso@languagename\endcsname{#4}{#5}{#6}%
545   }%
546 }
```

\iso@rangesign@danish Sets the word between start and end date in a date range to ' til '.

```
547 \expandafter\def\csname iso@rangesign@\CurrentOption\endcsname{~til~}
```

Define the language name that will the active language for isodate if none of the packages babel.sty, german.sty, and ngerman.sty is loaded and if this is the last language that is used for isodate. If one of the above packages is used this definition will be overridden by the command \languagename that will always return the current used language.

```
548 \def\iso@languagename{danish}%
```

Redefine the command \datedanish that is used by babel to switch to the original Danish date format to enable the use of different date formats. This has to be done after the preamble in order to ensure to overwrite the babel command.

```
549 \AtBeginDocument{%
550   \ifx\undefined\iso@datedanish\else
551     \def\datedanish{\iso@datedanish}%
552   \fi
553 }
554 ⟨/danish⟩
```

D.3 Language definition file english.idf

\iso@languageloaded   Define the command \iso@languageloaded in order to enable isodate.sty to determine if at least one language is loaded.

```
555 ⟨*english⟩
556 \let\iso@languageloaded\active
```

\month@english   Prints the name of today's month in the long form for the original date format.

```
557 \def\month@english{\ifcase\month\or
558     January\or February\or March\or April\or May\or June\or
559     July\or August\or September\or October\or November\or December\fi}
```

British and American English dates are very different. So handle them seperately. It might have been easier to put them in different files but I wanted to organize my files analogous to babel.

First handle British English.

```
560 \ifthenelse{\equal{\CurrentOption}{english}\OR
561             \equal{\CurrentOption}{british}\OR
562             \equal{\CurrentOption}{UKenglish}}{%
563   \typeout{Define commands for English date format}
```

\day@english   Prints today's day for the original date format.

```
564   \def\day@english{%
565     \ifiso@cleanlook
566       \day
567     \else
568       \ifcase\day\or
569         1st\or 2nd\or 3rd\or 4th\or 5th\or
570         6th\or 7th\or 8th\or 9th\or 10th\or
571         11th\or 12th\or 13th\or 14th\or 15th\or
572         16th\or 17th\or 18th\or 19th\or 20th\or
573         21st\or 22nd\or 23rd\or 24th\or 25th\or
574         26th\or 27th\or 28th\or 29th\or 30th\or
575         31st%
576       \fi
577     \fi
578   }
```

\iso@printmonthday@english   Prints the month and the day given as two arguments ({mm}{dd}) in the current date format.

```
579   \def\iso@printmonthday@english#1#2{%
```

Numeric and short date format: dd/mm/

```
580     \ifthenelse{\equal{\iso@dateformat}{iso}\OR
581                 \equal{\iso@dateformat}{TeX}}{%
582       \iso@printmonthday@int{#1}{#2}%
583     }{%
584       \ifthenelse{\equal{\iso@dateformat}{numeric}\OR
585                   \equal{\iso@dateformat}{short}}{%
```

```
586        \ifiso@doprintday
587          \iso@printday{#2}/%
588        \fi
589        \iso@printmonth{#1}%
590      }{%
```

Original date format: `ddd mmm`

```
591        \ifthenelse{\equal{\iso@dateformat}{orig}\OR
592                   \equal{\iso@dateformat}{shortorig}}{%
593        \begingroup
594        \edef\lday{#2}\def\day{\lday}%
595        \edef\lmonth{#1}\def\month{\lmonth}%
596        \ifiso@doprintday
597          \day@english\iso@monthsep\@empty
598        \fi
599        \month@english
600        \endgroup
601      }{}%
602    }%
603    }%
604  }
```

`\iso@printdate@english`   Prints the date given as three arguments (`{yyyy}{mm}{dd}`) in the actual date format.

```
605  \def\iso@printdate@english#1#2#3{%
606    \ifthenelse{\equal{\iso@dateformat}{iso}\OR
607               \equal{\iso@dateformat}{TeX}}{%
608    \iso@printdate@int{#1}{#2}{#3}%
609    }{%
```

ISO date format: `yyyy-\iso@printmonthday@english`

```
610      \iso@printmonthday@english{\number#2}{\number#3}%
```

Numeric date format: `\iso@printmonthday@english yyyy`

```
611      \ifiso@printyear
612        \ifthenelse{\equal{\iso@dateformat}{orig}\OR
613                   \equal{\iso@dateformat}{shortorig}}{%
614        }{%
615          /%
616        }%
617        \ifthenelse{\equal{\iso@dateformat}{numeric}}{%
618          \iso@yearfour{\number#1}%
619        }{%
```

Original date format: `\iso@printmonthday@english~yyyy`

```
620          \ifthenelse{\equal{\iso@dateformat}{orig}}{%
621          \iso@yearsep\iso@yearfour{\number#1}%
622          }{%
```

Short original date format: `\iso@printmonthday@english~yy`

```
623            \ifthenelse{\equal{\iso@dateformat}{shortorig}}{%
```

```
624            \iso@yearsep\iso@twodigitsign\iso@yeartwo{\number#1}%
625          }{%
```

Short date format: `\iso@printmonthday@english yy`

```
626            \ifthenelse{\equal{\iso@dateformat}{short}}{%
627              \iso@yeartwo{\number#1}%
628            }{}%
629          }%
630        }%
631      }%
632    \fi
633  }%
634  }
```

\iso@printdate@UKenglish   Just a second name for `\iso@printdate@UKenglish`.

```
635  \def\iso@printdate@UKenglish{\iso@printdate@english}
636  \def\iso@printdate@british{\iso@printdate@english}
```

\iso@dateenglish   This command redefines the `\today` command to print in the actual date format.

```
637  \def\iso@dateenglish{%
638    \def\today{\iso@printdate@english{\year}{\month}{\day}}}%
```

\iso@daterange@...   Define date-range commands for dialects of English.

```
639  \expandafter\def\csname iso@daterange@\CurrentOption\endcsname{%
640    \iso@daterange@english}%
```

\iso@daterange@english   This command takes six arguments (`{yyyy1}{mm1}{dd1}{yyyy2}{mm2}{dd2}`) and prints the corrosponding date range in the actual date format.

```
641  \def\iso@daterange@english#1#2#3#4#5#6{%
```

ISO or LaTeX date format.

```
642    \ifthenelse{\equal{\iso@dateformat}{iso}\OR
643                \equal{\iso@dateformat}{TeX}}{%
```

Print the start date.

```
644      \iso@daterange@int{#1}{#2}{#3}{#4}{#5}{#6}%
645    }{%
```

Numeric, short, or original date format.

If year and month are equal, only print the day of the start date. If only the year is equal, only print month and day of the start date. Otherwise print the whole start date.

```
646      \ifthenelse{\equal{\number#1}{\number#4}}{%
647        \ifthenelse{\equal{\number#2}{\number#5}}{%
648          \ifiso@doprintday
649            \ifthenelse{\equal{\iso@dateformat}{orig}\OR
650                        \equal{\iso@dateformat}{shortorig}}{%
651              \begingroup
652              \edef\lday{#3}\def\day{\lday}%
653              \day@english
```

30

```
654            \endgroup
655          }{%
656            \iso@printday{#3}%
657          }%
658        \else
659          \csname iso@printmonthday@\iso@languagename\endcsname{#2}{#3}%
660        \fi
661      }{%
662        \csname iso@printmonthday@\iso@languagename\endcsname{#2}{#3}%
663      }%
664    }{%
665      \csname iso@printdate@\iso@languagename\endcsname{#1}{#2}{#3}%
666    }%
```

Print the end date.

```
667      \iso@rangesign
668      \csname iso@printdate@\iso@languagename\endcsname{#4}{#5}{#6}%
669    }%
670  }
```

Define the language name that will the active language for isodate if none of the packages babel.sty, german.sty, and ngerman.sty is loaded and if this is the last language that is used for isodate. If one of the above packages is used this definition will be overridden by the command \languagename that will always return the current used language.

```
671  \def\iso@languagename{english}%
```

The end of the British section.

  Second handle Australian and New Zealand.

```
672 }{%
673  \ifthenelse{\equal{\CurrentOption}{australian}\OR
674             \equal{\CurrentOption}{newzealand}}{%
675    \typeout{Define commands for Australian date format}
```

\iso@printmonthday@australian Prints the month and the day given as two arguments ({mm}{dd}) in the current date format.

```
676    \def\iso@printmonthday@australian#1#2{%
677      \ifthenelse{\equal{\iso@dateformat}{iso}\OR
678                 \equal{\iso@dateformat}{TeX}}{%
679      \iso@printmonthday@int{#1}{#2}%
680    }{%
```

Numeric and short date format: dd/mm/

```
681        \ifthenelse{\equal{\iso@dateformat}{numeric}\OR
682                   \equal{\iso@dateformat}{short}}{%
683        \ifiso@doprintday
684          \iso@printday{#2}/%
685        \fi
686        \iso@printmonth{#1}%
687      }{%
```

Original date format: `ddd mmm`

```
688          \ifthenelse{\equal{\iso@dateformat}{orig}\OR
689                      \equal{\iso@dateformat}{shortorig}}{%
690          \begingroup
691          \edef\lmonth{#1}\def\month{\lmonth}%
692          \ifiso@doprintday
693            \iso@printday{#2}\iso@monthsep\@empty
694          \fi
695          \month@english
696          \endgroup
697        }{}%
698      }%
699    }%
700    }
```

\iso@printdate@australian   Prints the date given as three arguments (`{yyyy}{mm}{dd}`) in the actual date format.

```
701    \def\iso@printdate@australian#1#2#3{%
702      \ifthenelse{\equal{\iso@dateformat}{iso}\OR
703                  \equal{\iso@dateformat}{TeX}}{%
704      \iso@printdate@int{#1}{#2}{#3}%
705    }{%
706      \iso@printmonthday@australian{\number#2}{\number#3}%
```

Numeric date format: \iso@printmonthday@australian yyyy

```
707        \ifiso@printyear
708        \ifthenelse{\equal{\iso@dateformat}{orig}\OR
709                    \equal{\iso@dateformat}{shortorig}}{%
710      }{%
711        /%
712      }%
713      \ifthenelse{\equal{\iso@dateformat}{numeric}}{%
714        \iso@yearfour{\number#1}%
715      }{%
```

Original date format: \iso@printmonthday@australian~yyyy

```
716          \ifthenelse{\equal{\iso@dateformat}{orig}}{%
717            \iso@yearsep\iso@yearfour{\number#1}%
718          }{%
```

Short original date format: \iso@printmonthday@australian~yy

```
719          \ifthenelse{\equal{\iso@dateformat}{shortorig}}{%
720            \iso@yearsep\iso@twodigitsign\iso@yeartwo{\number#1}%
721          }{%
```

Short date format: \iso@printmonthday@australian yy

```
722          \ifthenelse{\equal{\iso@dateformat}{short}}{%
723            \iso@yeartwo{\number#1}%
724          }{}%
725        }%
726      }%
```

```
727          }%
728        \fi
729      }%
730    }
```

\iso@printdate@newzealand   Just a second name for \iso@printdate@UKenglish.

```
731      \def\iso@printdate@newzealand{\iso@printdate@australian}
```

\iso@dateaustralian   This command redefines the \today command to print in the actual date format.

```
732      \def\iso@dateaustralian{%
733        \def\today{\iso@printdate@australian{\year}{\month}{\day}}}%
```

\iso@daterange@...   Define date-range commands for dialects of Australian.

```
734      \expandafter\def\csname iso@daterange@\CurrentOption\endcsname{%
735        \iso@daterange@australian}%
```

\iso@daterange@australian   This command takes six arguments ({yyyy1}{mm1}{dd1}{yyyy2}{mm2}{dd2}) and prints the corrosponding date range in the actual date format.

```
736      \def\iso@daterange@australian#1#2#3#4#5#6{%
```

ISO or LaTeX date format.

```
737        \ifthenelse{\equal{\iso@dateformat}{iso}\OR
738                   \equal{\iso@dateformat}{TeX}}{%
```

Print the start date.

```
739        \iso@daterange@int{#1}{#2}{#3}{#4}{#5}{#6}%
740      }{%
```

Numeric, short, or original date format.

If year and month are equal, only print the day of the start date. If only the year is equal, only print month and day of the start date. Otherwise print the whole start date.

```
741        \ifthenelse{\equal{\number#1}{\number#4}}{%
742          \ifthenelse{\equal{\number#2}{\number#5}}{%
743            \ifiso@doprintday
744              \iso@printday{#3}%
745            \else
746              \csname iso@printmonthday@\iso@languagename\endcsname{#2}{#3}%
747            \fi
748          }{%
749            \iso@printmonthday@australian{#2}{#3}%
750          }%
751        }{%
752          \csname iso@printdate@\iso@languagename\endcsname{#1}{#2}{#3}%
753        }%
```

Print the end date.

```
754        \iso@rangesign
755        \csname iso@printdate@\iso@languagename\endcsname{#4}{#5}{#6}%
756      }%
757    }
```

Define the language name that will the active language for isodate if none of the packages babel.sty, german.sty, and ngerman.sty is loaded and if this is the last language that is used for isodate. If one of the above packages is used this definition will be overridden by the command `\languagename` that will always return the current used language.

```
758        \def\iso@languagename{australian}%
```

The end of the Australian section.

Third, handle American.

```
759    }{%
760        \typeout{Define commands for American date format}
```

`\iso@printmonthday@american`   Prints the month and the day given as two arguments (`{mm}{dd}`) in the current date format.

```
761        \def\iso@printmonthday@american#1#2{%
762          \ifthenelse{\equal{\iso@dateformat}{iso}\OR
763                  \equal{\iso@dateformat}{TeX}}{%
764          \iso@printmonthday@int{#1}{#2}%
765          }{%
```

Numeric and short date format: `mm/dd/`

```
766            \ifthenelse{\equal{\iso@dateformat}{numeric}\OR
767                    \equal{\iso@dateformat}{short}}{%
768            \iso@printmonth{#1}%
769            \ifiso@doprintday
770              /\iso@printday{#2}%
771            \fi
772          }{%
```

Original date format: `mmm d`

```
773            \ifthenelse{\equal{\iso@dateformat}{orig}\OR
774                    \equal{\iso@dateformat}{shortorig}}{%
775            \begingroup%
776            \edef\lmonth{#1}%
777            \def\month{\lmonth}%
778            \month@english%
779            \endgroup
780            \ifiso@doprintday
781              \iso@daysep\iso@printday{#2}%
782            \fi
783          }{}%
784        }%
785      }%
786    }
```

`\iso@printdate@american`   Prints the date given as three arguments (`{yyyy}{mm}{dd}`) in the actual date format.

```
787        \def\iso@printdate@american#1#2#3{%
788          \ifthenelse{\equal{\iso@dateformat}{iso}\OR
789                  \equal{\iso@dateformat}{TeX}}{%
```

```
790        \iso@printdate@int{#1}{#2}{#3}%
791      }{%
792        \iso@printmonthday@american{\number#2}{\number#3}%
```

Numeric date format: \iso@printmonthday@american yyyy

```
793        \ifiso@printyear
794          \ifthenelse{\equal{\iso@dateformat}{orig}\OR
795                     \equal{\iso@dateformat}{shortorig}}{%
796        }{%
797          /%
798        }%
799        \ifthenelse{\equal{\iso@dateformat}{numeric}}{%
800          \iso@yearfour{\number#1}%
801        }{%
```

Original date format: \iso@printmonthday@american,˜yyyy

```
802          \ifthenelse{\equal{\iso@dateformat}{orig}}{%
803            \ifiso@doprintday,\fi
804            \iso@yearsep\iso@yearfour{\number#1}%
805          }{%
```

Short original date format: \iso@printmonthday@american,˜yyyy

```
806          \ifthenelse{\equal{\iso@dateformat}{shortorig}}{%
807            \ifiso@doprintday,\fi
808            \iso@yearsep\iso@twodigitsign\iso@yeartwo{\number#1}%
809          }{%
```

Short date format: \iso@printmonthday@american yy

```
810          \ifthenelse{\equal{\iso@dateformat}{short}}{%
811            \iso@yeartwo{\number#1}%
812          }{}%
813        }%
814      }%
815      }%
816      \fi
817    }%
818  }
```

\iso@printdate@USenglish   Just a second name for \iso@printdate@UKamerican.

```
819    \def\iso@printdate@USenglish{\iso@printdate@american}
```

\iso@dateamerican   This command redefines the \today command to print in the actual date format.

```
820    \def\iso@dateamerican{%
821      \def\today{\iso@printdate@american{\year}{\month}{\day}}}%
```

\iso@daterange@...   Define date-range commands for dialects of American.

```
822    \expandafter\def\csname iso@daterange@\CurrentOption\endcsname{%
823      \iso@daterange@american}%
```

\iso@daterange@american   This command takes six arguments ({yyyy1}{mm1}{dd1}{yyyy2}{mm2}{dd2})
and prints the corrosponding date range in the actual date format.

```
824    \def\iso@daterange@american#1#2#3#4#5#6{%
```

ISO or LaTeX date format.

```
825        \ifthenelse{\equal{\iso@dateformat}{iso}\OR
826                   \equal{\iso@dateformat}{TeX}}{%
```

Print the start date.

```
827        \iso@daterange@int{#1}{#2}{#3}{#4}{#5}{#6}%
828      }{%
```

Original date format.

If year and month are equal, print `mmm d1 to d2, yyyy`. If only the year is equal, print `mmm1 d1 to mmm2 d2, yyyy`. Otherwise print the whole start and end date.

```
829        \ifthenelse{\equal{\iso@dateformat}{orig}\OR
830                   \equal{\iso@dateformat}{shortorig}}{%
831      \ifthenelse{\equal{\number#1}{\number#4}}{%
832        \ifthenelse{\equal{\number#2}{\number#5}}{%
833          \iso@printmonthday@american{#2}{#3}%
834          \iso@rangesign
835          \ifiso@doprintday
836            \iso@printday{#6},\iso@yearsep\@empty
837          \else
838            \iso@printmonthday@american{#5}{#6}\iso@yearsep\@empty
839          \fi
840          \ifthenelse{\equal{\iso@dateformat}{orig}}{%
841            \iso@yearfour{\number#4}%
842          }{%
843            \iso@twodigitsign\iso@yeartwo{\number#4}%
844          }%
845        }{%
846          \iso@printmonthday@american{#2}{#3}%
847          \iso@rangesign
848          \csname iso@printdate@\iso@languagename\endcsname{%
849            #4}{#5}{#6}%
850        }%
851      }{%
852        \csname iso@printdate@\iso@languagename\endcsname{#1}{#2}{#3}%
853        \iso@rangesign%
854        \csname iso@printdate@\iso@languagename\endcsname{#4}{#5}{#6}%
855      }%
856    }{%
```

Numeric or short date format.

If year and month are equal, only print the day of the end date. Otherwise print the whole end date.

```
857        \ifthenelse{\equal{\number#1}{\number#4}}{%
858        \iso@printmonthday@american{#2}{#3}%
859      }{%
860        \csname iso@printdate@\iso@languagename\endcsname{#1}{#2}{#3}%
861      }%
```

Print the end date.

```
862        \iso@rangesign
863        \csname iso@printdate@\iso@languagename\endcsname{#4}{#5}{#6}%
864      }%
865    }%
866  }
```

Define the language name that will the active language for isodate if none of the packages babel.sty, german.sty, and ngerman.sty is loaded and if this is the last language that is used for isodate. If one of the above packages is used this definition will be overridden by the command `\languagename` that will always return the current used language.

```
867    \def\iso@languagename{american}%
```

The end of the American section.

```
868  }
869 }
```

`\iso@rangesign@...` Sets the word between start and end date in a date range to ' to'.

```
870 \expandafter\def\csname iso@rangesign@\CurrentOption\endcsname{~to~}
```

Redefine the command date language that is used by babel.sty, german.sty, and ngerman.sty to switch to the original English/American date format to enable the use of different date formats. This has to be done after the preamble in order to ensure to overwrite the babel command.

Do this only if `\iso@date` language is defined.

```
871 \AtBeginDocument{%
872   \ifx\undefined\iso@dateenglish\else
873     \def\dateenglish{\iso@dateenglish}%
874     \def\datebritish{\iso@dateenglish}%
875     \def\dateUKenglish{\iso@dateenglish}%
876   \fi
877   \ifx\undefined\iso@dateaustralian\else
878     \def\dateaustralian{\iso@dateaustralian}%
879     \def\datenewzealand{\iso@dateaustralian}%
880   \fi
881   \ifx\undefined\iso@dateamerican\else
882     \def\dateamerican{\iso@dateamerican}%
883     \def\dateUSenglish{\iso@dateamerican}%
884   \fi
885 }
886 ⟨/english⟩
```

D.4 Language definition file french.idf

`\iso@languageloaded` Define the command `\iso@languageloaded` in order to enable isodate.sty to determine if at least one language is loaded.

```
887 ⟨∗french⟩
888 \let\iso@languageloaded\active
889 \typeout{Define commands for French date format}
```

```
890 \def\month@french{\ifcase\month\or
891  janvier\or f\'evrier\or mars\or avril\or mai\or juin\or
892  juillet\or ao\^ut\or septembre\or octobre\or novembre\or
893  d\'ecembre\fi}
894 \def\iso@printmonthday@french#1#2{%
895   \ifthenelse{\equal{\iso@dateformat}{iso}\OR
896              \equal{\iso@dateformat}{TeX}}{%
897     \iso@printmonthday@int{#1}{#2}%
898   }{%
899     \ifthenelse{\equal{\iso@dateformat}{numeric}\OR
900                \equal{\iso@dateformat}{short}}{%
901       \ifiso@doprintday
902         \iso@printday{#2}/%
903       \fi
904       \iso@printmonth{#1}%
905     }{%
906       \ifthenelse{\equal{\iso@dateformat}{orig}\OR
907                  \equal{\iso@dateformat}{shortorig}}{%
908         \begingroup
909         \edef\lday{#2}\edef\day{\lday}%
910         \edef\lmonth{#1}\def\month{\lmonth}%
911         \ifiso@doprintday
912           \number\day\ifnum1=\day \noexpand\ier\fi\iso@monthsep
913         \fi
914         \month@french
915         \endgroup
916       }{}%
917     }%
918   }%
919 }
920 \def\iso@printdate@french#1#2#3{%
921   \ifthenelse{\equal{\iso@dateformat}{iso}\OR
922              \equal{\iso@dateformat}{TeX}}{%
923     \iso@printdate@int{#1}{#2}{#3}%
924   }{%
925     \iso@printmonthday@french{\number#2}{\number#3}%
926     \ifiso@printyear
927       \ifthenelse{\equal{\iso@dateformat}{orig}\OR
928                  \equal{\iso@dateformat}{shortorig}}{%
929       }{%
930         /%
931       }%
932       \ifthenelse{\equal{\iso@dateformat}{numeric}}{%
933         \iso@yearfour{\number#1}%
934       }{%
935         \ifthenelse{\equal{\iso@dateformat}{orig}}{%
936           \iso@yearsep\iso@yearfour{\number#1}%
937         }{%
938           \ifthenelse{\equal{\iso@dateformat}{shortorig}}{%
```

```
939            \iso@yearsep\iso@twodigitsign\iso@yeartwo{\number#1}%
940          }{%
941            \ifthenelse{\equal{\iso@dateformat}{short}}{%
942              \iso@yeartwo{\number#1}%
943            }{}%
944          }%
945        }%
946      }%
947    \fi
948  }%
949 }

950 \def\iso@datefrench{%
951   \def\today{\iso@printdate@french{\year}{\month}{\day}}}%
```

\iso@daterange@...   Define date-range commands for dialects.

```
952 \expandafter\def\csname iso@daterange@\CurrentOption\endcsname{%
953   \iso@daterange@french}%

954 \def\iso@daterange@french#1#2#3#4#5#6{%
955   \ifthenelse{\equal{\iso@dateformat}{iso}\OR
956              \equal{\iso@dateformat}{TeX}}{%
957     \iso@daterange@int{#1}{#2}{#3}{#4}{#5}{#6}%
958   }{%
959     \ifthenelse{\equal{\number#1}{\number#4}}{%
960       \ifthenelse{\equal{\number#2}{\number#5}}{%
961         \ifiso@doprintday
962           \ifthenelse{\equal{\iso@dateformat}{orig}}{%
963             \begingroup
964             \edef\lday{#3}\edef\day{\lday}%
965             \number\day\ifnum1=\day \noexpand\ier\fi
966             \endgroup
967           }{%
968             \iso@printday{#3}%
969           }%
970         \else
971           \csname iso@printmonthday@\iso@languagename\endcsname{#2}{#3}%
972         \fi
973       }{%
974         \iso@printmonthday@french{#2}{#3}%
975       }%
976     }{%
977       \csname iso@printdate@\iso@languagename\endcsname{#1}{#2}{#3}%
978     }%
979     \iso@rangesign
980     \csname iso@printdate@\iso@languagename\endcsname{#4}{#5}{#6}%
981   }%
982 }

983 \expandafter\def\csname iso@rangesign@\CurrentOption\endcsname{~au~}
```

Define the language name that will the active language for isodate if none of the packages babel.sty, german.sty, and ngerman.sty is loaded and if this is the last language that is used for isodate. If one of the above packages is used this definition will be overridden by the command \languagename that will always return the current used language.

```
984 \def\iso@languagename{french}%
```

\datefrenchb has to be defined additionally because babel starts with language frenchb instead of french.

```
985 \AtBeginDocument{%
986   \ifx\undefined\iso@datefrench\else
987     \def\datefrench{\iso@datefrench}%
988     \def\datefrenchb{\iso@datefrench}%
989   \fi
990 }
991 ⟨/french⟩
```

D.5   Language definition file german.idf

\iso@languageloaded   Define the command \iso@languageloaded in order to enable isodate.sty to determine if at least one language is loaded.

```
992 ⟨*german⟩
993 \let\iso@languageloaded\active
994 \typeout{Define commands for German date format (\CurrentOption)}
```

Define spaces between day and month resp. month and year. dm stands for day-month and my for month-year. The defaults are taken from the Duden [2].

```
995 \def\iso@dmsepgerman{\,}%
996 \def\iso@mylongsepgerman{~}%
997 \def\iso@myshortsepgerman{\,}%
998 \def\iso@mylongsepnodaygerman{}%
999 \def\iso@myshortsepnodaygerman{}%
```

\daymonthsepgerman   Change space between day and month in numeric date formats for the German language. The only parameter is the new spacing.

```
1000 \DeclareRobustCommand*\daymonthsepgerman[1]{\def\iso@dmsepgerman{#1}}
1001 %      \begin{macrocode}
1002 % \end{macro}
1003 % \begin{macro}{\monthyearsepgerman}
1004 % Change space between month and year in numeric date formats for the
1005 % German language. The first parameter is the new spacing for the long
1006 % format and the second for the short format.
1007 %      \begin{macrocode}
1008 \DeclareRobustCommand*\monthyearsepgerman[2]{%
1009   \def\iso@mylongsepgerman{#1}%
1010   \def\iso@myshortsepgerman{#2}}
1011 \DeclareRobustCommand*\monthyearsepnodaygerman[2]{%
1012   \def\iso@mylongsepnodaygerman{#1}%
1013   \def\iso@myshortsepnodaygerman{#2}}
```

40

```
1014 \def\month@german{\ifcase\month\or
1015   Januar\or Februar\or M\"arz\or April\or Mai\or Juni\or
1016   Juli\or August\or September\or Oktober\or November\or Dezember\fi}
1017 \def\month@ngerman{\month@german}
1018 \def\month@austrian{\ifnum1=\month
1019   J\"anner\else \month@german\fi}
1020 \def\month@naustrian{\month@austrian}

1021 \@namedef{iso@printmonthday@\CurrentOption}#1#2{%
1022   \ifthenelse{\equal{\iso@dateformat}{iso}\OR
1023               \equal{\iso@dateformat}{TeX}}{%
1024     \iso@printmonthday@int{#1}{#2}%
1025   }{%
1026     \ifthenelse{\equal{\iso@dateformat}{numeric}\OR
1027                 \equal{\iso@dateformat}{short}}{%
1028       \ifiso@doprintday
1029         \iso@printday{#2}.\iso@dmsepgerman
1030       \fi
1031       \iso@printmonth{#1}%
1032     }{%
1033       \ifthenelse{\equal{\iso@dateformat}{orig}\OR
1034                   \equal{\iso@dateformat}{shortorig}}{%
1035         \ifiso@doprintday
1036           \iso@printday{#2}.\iso@monthsep\@empty
1037         \fi
1038         \begingroup
1039         \edef\lmonth{#1}%
1040         \def\month{\lmonth}\csname month@\iso@languagename\endcsname%
1041         \endgroup
1042       }{}%
1043     }%
1044   }%
1045 }

1046 \@namedef{iso@printdate@\CurrentOption}#1#2#3{%
1047   \ifthenelse{\equal{\iso@dateformat}{iso}\OR
1048               \equal{\iso@dateformat}{TeX}}{%
1049     \iso@printdate@int{#1}{#2}{#3}%
1050   }{%
1051     \csname iso@printmonthday@\iso@languagename\endcsname{%
1052       \number#2}{\number#3}%
1053     \ifiso@printyear
1054       \ifthenelse{\equal{\iso@dateformat}{orig}\OR
1055                   \equal{\iso@dateformat}{shortorig}}{%
1056       }{%
1057         \ifiso@doprintday.\else/\fi
1058       }%
1059       \ifthenelse{\equal{\iso@dateformat}{numeric}}{%
1060         \ifiso@doprintday
1061           \iso@mylongsepgerman\@empty
1062         \else
```

```
1063        \iso@mylongsepnodaygerman\@empty
1064      \fi
1065      \iso@yearfour{\number#1}%
1066    }{%
1067      \ifthenelse{\equal{\iso@dateformat}{orig}}{%
1068        \iso@yearsep\iso@yearfour{\number#1}%
1069      }{%
1070        \ifthenelse{\equal{\iso@dateformat}{shortorig}}{%
1071          \iso@yearsep\iso@twodigitsign\iso@yeartwo{\number#1}%
1072        }{%
1073          \ifthenelse{\equal{\iso@dateformat}{short}}{%
1074            \ifiso@doprintday
1075              \iso@myshortsepgerman\@empty
1076            \else
1077              \iso@myshortsepnodaygerman\@empty
1078            \fi
1079            \iso@yeartwo{\number#1}%
1080          }{}%
1081        }%
1082      }%
1083    }%
1084    \fi
1085  }%
1086 }

1087 \@namedef{iso@daterange@\CurrentOption}#1#2#3#4#5#6{%
1088  \ifthenelse{\equal{\iso@dateformat}{iso}\OR
1089              \equal{\iso@dateformat}{TeX}}{%
1090    \iso@daterange@int{#1}{#2}{#3}{#4}{#5}{#6}%
1091  }{%
1092    \ifthenelse{\equal{\number#1}{\number#4}}{%
1093      \ifthenelse{\equal{\number#2}{\number#5}}{%
1094        \ifiso@doprintday
1095          \iso@printday{#3}.%
1096        \else
1097          \csname iso@printmonthday@\iso@languagename\endcsname{#2}{#3}%
1098        \fi
1099      }{%
1100        \csname iso@printmonthday@\iso@languagename\endcsname{#2}{#3}%
1101      }%
1102    }{%
1103      \csname iso@printdate@\iso@languagename\endcsname{#1}{#2}{#3}%
1104    }%
1105    \iso@rangesign
1106    \csname iso@printdate@\iso@languagename\endcsname{#4}{#5}{#6}%
1107  }%
1108 }

1109 \expandafter\def\csname iso@rangesign@\CurrentOption\endcsname{~bis~}

1110 \ifthenelse{\equal{\CurrentOption}{german}}{%
```

```
1111    \def\iso@dategerman{%
1112      \def\today{\iso@printdate@german{\year}{\month}{\day}}}%
```

Define the language name that will the active language for isodate if none of the packages babel.sty, german.sty, and ngerman.sty is loaded and if this is the last language that is used for isodate. If one of the above packages is used this definition will be overridden by the command \languagename that will always return the current used language.

```
1113    \def\iso@languagename{german}%
1114  }{%
```

```
1115  \ifthenelse{\equal{\CurrentOption}{ngerman}}{%
1116    \def\iso@datengerman{%
1117      \def\today{\iso@printdate@ngerman{\year}{\month}{\day}}}%
```

Define the language name that will the active language for isodate if none of the packages babel.sty, german.sty, and ngerman.sty is loaded and if this is the last language that is used for isodate. If one of the above packages is used this definition will be overridden by the command \languagename that will always return the current used language.

```
1118    \def\iso@languagename{ngerman}%
1119  }{%
```

```
1120  \ifthenelse{\equal{\CurrentOption}{austrian}}{%
1121    \def\iso@dateaustrian{%
1122      \def\today{\iso@printdate@austrian{\year}{\month}{\day}}}%
```

Define the language name that will the active language for isodate if none of the packages babel.sty, german.sty, and ngerman.sty is loaded and if this is the last language that is used for isodate. If one of the above packages is used this definition will be overridden by the command \languagename that will always return the current used language.

```
1123    \def\iso@languagename{austrian}%
1124  }{%
```

```
1125  \ifthenelse{\equal{\CurrentOption}{naustrian}}{%
1126    \def\iso@datenaustrian{%
1127      \def\today{\iso@printdate@naustrian{\year}{\month}{\day}}}%
```

Define the language name that will the active language for isodate if none of the packages babel.sty, german.sty, and ngerman.sty is loaded and if this is the last language that is used for isodate. If one of the above packages is used this definition will be overridden by the command \languagename that will always return the current used language.

```
1128    \def\iso@languagename{naustrian}%
1129  }{%
1130  }}}}
```

Redefine the command datelanguage that is used by babel.sty, german.sty, and ngerman.sty to switch to the original German date format to enable the use of different date formats. This has to be done after the preamble in order to ensure to overwrite the babel command.

Do this only if \iso@datelanguage is defined.

```
1131 \AtBeginDocument{%
1132   \ifx\undefined\iso@dategerman\else
1133     \def\dategerman{\iso@dategerman}%
1134   \fi
1135   \ifx\undefined\iso@datengerman\else
1136     \def\datengerman{\iso@datengerman}%
1137   \fi
1138   \ifx\undefined\iso@dateaustrian\else
1139     \def\dateaustrian{\iso@dateaustrian}%
1140   \fi
1141   \ifx\undefined\iso@datenaustrian\else
1142     \def\datenaustrian{\iso@datenaustrian}%
1143   \fi
1144 }
1145 ⟨/german⟩
```

D.6   Language definition file italian.idf

\iso@languageloaded   Define the command \iso@languageloaded in order to enable isodate.sty to determine if at least one language is loaded.

```
1146 ⟨*italian⟩
1147 \let\iso@languageloaded\active
1148 \typeout{Define commands for Italian date format}

1149 \def\month@italian{\ifcase\month\or
1150   gennaio\or febbraio\or marzo\or aprile\or maggio\or giugno\or
1151   luglio\or agosto\or settembre\or ottobre\or novembre\or
1152   dicembre\fi}
1153 \def\iso@printmonthday@italian#1#2{%
1154   \ifthenelse{\equal{\iso@dateformat}{iso}\OR
1155             \equal{\iso@dateformat}{TeX}}{%
1156     \iso@printmonthday@int{#1}{#2}%
1157   }{%
1158     \ifthenelse{\equal{\iso@dateformat}{numeric}\OR
1159               \equal{\iso@dateformat}{short}}{%
1160       \ifiso@doprintday
1161         \iso@printday{#2}/%
1162       \fi
1163       \iso@printmonth{#1}%
1164     }{%
1165       \ifthenelse{\equal{\iso@dateformat}{orig}\OR
1166                 \equal{\iso@dateformat}{shortorig}}{%
1167         \begingroup
1168         \edef\lday{#2}\edef\day{\lday}%
1169         \edef\lmonth{#1}\def\month{\lmonth}%
1170         \ifiso@doprintday
1171           \number\day\ifnum1=\day \noexpand\textordmasculine\fi
1172           \iso@monthsep
```

44

```
1173        \fi
1174        \month@italian
1175        \endgroup
1176      }{}%
1177    }%
1178  }%
1179 }

1180 \def\iso@printdate@italian#1#2#3{%
1181   \ifthenelse{\equal{\iso@dateformat}{iso}\OR
1182     \equal{\iso@dateformat}{TeX}}{%
1183     \iso@printdate@int{#1}{#2}{#3}%
1184   }{%
1185     \iso@printmonthday@italian{\number#2}{\number#3}%
1186     \ifiso@printyear
1187       \ifthenelse{\equal{\iso@dateformat}{orig}\OR
1188                   \equal{\iso@dateformat}{shortorig}}{%
1189       }{%
1190         /%
1191       }%
1192       \ifthenelse{\equal{\iso@dateformat}{numeric}}{%
1193         \iso@yearfour{\number#1}%
1194       }{%
1195         \ifthenelse{\equal{\iso@dateformat}{orig}}{%
1196           \iso@yearsep\iso@yearfour{\number#1}%
1197         }{%
1198           \ifthenelse{\equal{\iso@dateformat}{shortorig}}{%
1199             \iso@yearsep\iso@twodigitsign\iso@yeartwo{\number#1}%
1200           }{%
1201             \ifthenelse{\equal{\iso@dateformat}{short}}{%
1202               \iso@yeartwo{\number#1}%
1203             }{}%
1204           }%
1205         }%
1206       }%
1207     \fi
1208   }%
1209 }

1210 \def\iso@dateitalian{%
1211   \def\today{\iso@printdate@italian{\year}{\month}{\day}}}%
```

\iso@daterange@...   Define date-range commands for dialects.

```
1212 \expandafter\def\csname iso@daterange@\CurrentOption\endcsname{%
1213   \iso@daterange@italian}%

1214 \def\iso@daterange@italian#1#2#3#4#5#6{%
1215   \ifthenelse{\equal{\iso@dateformat}{iso}\OR
1216                 \equal{\iso@dateformat}{TeX}}{%
1217     \iso@daterange@int{#1}{#2}{#3}{#4}{#5}{#6}%
1218   }{%
```

```
1219    \ifthenelse{\equal{\number#1}{\number#4}}{%
1220      \ifthenelse{\equal{\number#2}{\number#5}}{%
1221        \ifiso@doprintday
1222          \ifthenelse{\equal{\iso@dateformat}{orig}}{%
1223            \begingroup
1224            \edef\lday{#3}\edef\day{\lday}%
1225            \number\day\ifnum1=\day \noexpand\textordmasculine\fi
1226            \endgroup
1227          }{%
1228            \iso@printday{#3}%
1229          }%
1230        \else
1231          \iso@printmonthday@italian{#2}{#3}%
1232        \fi
1233      }{%
1234        \iso@printmonthday@italian{#2}{#3}%
1235      }%
1236    }{%
1237      \csname iso@printdate@\iso@languagename\endcsname{#1}{#2}{#3}%
1238    }%
1239    \iso@rangesign
1240    \csname iso@printdate@\iso@languagename\endcsname{#4}{#5}{#6}%
1241  }%
1242 }

1243 \expandafter\def\csname iso@rangesign@\CurrentOption\endcsname{~al~}
```

Define the language name that will the active language for isodate if none of the packages babel.sty, german.sty, and ngerman.sty is loaded and if this is the last language that is used for isodate. If one of the above packages is used this definition will be overridden by the command \languagename that will always return the current used language.

```
1244 \def\iso@languagename{italian}%

1245 \AtBeginDocument{%
1246   \ifx\undefined\iso@dateitalian\else
1247     \def\dateitalian{\iso@dateitalian}%
1248   \fi
1249 }
1250 ⟨/italian⟩
```

D.7 Language definition file norsk.idf

This file was provided by Svend Tollak Munkejord (svend.t.munkejord@energy.sintef.no).

\iso@languageloaded   Define the command \iso@languageloaded in order to enable isodate.sty to determine if at least one language is loaded.

```
1251 ⟨*norsk⟩
1252 \let\iso@languageloaded\active
1253 \typeout{Define commands for Norwegian date format}
```

`\month@norsk` Prints the name of today's month in the long form for the original date format.

```
1254 \def\month@norsk{\ifcase\month\or
1255     januar\or februar\or mars\or april\or mai\or juni\or
1256     juli\or august\or september\or oktober\or november\or desember\fi}
```

`\iso@printmonthday@norsk` Prints the month and the day given as two arguments (`{mm}{dd}`) in the current date format.

```
1257 \def\iso@printmonthday@norsk#1#2{%
1258   \ifthenelse{\equal{\iso@dateformat}{iso}\OR
1259             \equal{\iso@dateformat}{TeX}}{%
1260   \iso@printmonthday@int{#1}{#2}%
1261   }{%
```

Numeric and short date format: `dd/mm/`

```
1262     \ifthenelse{\equal{\iso@dateformat}{numeric}\OR
1263               \equal{\iso@dateformat}{short}}{%
1264     \ifiso@doprintday
1265       \iso@printday{#2}/%
1266     \fi
1267     \iso@printmonth{#1}%
1268   }{%
```

Original date format: `d. mmm`

```
1269     \ifthenelse{\equal{\iso@dateformat}{orig}\OR
1270               \equal{\iso@dateformat}{shortorig}}{%
1271     \ifiso@doprintday
1272       \iso@printday{#2}.\iso@monthsep
1273     \fi
1274     \begingroup
1275     \edef\lmonth{#1}\def\month{\lmonth}%
1276     \month@norsk%
1277     \endgroup
1278   }{}%
1279   }%
1280   }%
1281 }
```

`\iso@printdate@norsk` Prints the date given as three arguments (`{yyyy}{mm}{dd}`) in the actual date format

```
1282 \def\iso@printdate@norsk#1#2#3{%
```

ISO or LaTeX date format: `yyyy\iso@printmonthday@norsk`

```
1283   \ifthenelse{\equal{\iso@dateformat}{iso}\OR
1284             \equal{\iso@dateformat}{TeX}}{%
1285   \iso@printdate@int{#1}{#2}{#3}%
1286   }{%
1287     \iso@printmonthday@norsk{\number#2}{\number#3}%
```

numeric date format: `\iso@printmonthday@norsk yyyy`

```
1288     \ifiso@printyear
1289         \ifthenelse{\equal{\iso@dateformat}{orig}\OR
```

47

```
1290                    \equal{\iso@dateformat}{shortorig}}{%
1291        }{%
1292          /%
1293        }%
1294        \ifthenelse{\equal{\iso@dateformat}{numeric}}{%
1295          \iso@yearfour{\number#1}%
1296        }{%
```
  original date format: \iso@printmonthday@norsk~yyyy
```
1297          \ifthenelse{\equal{\iso@dateformat}{orig}}{%
1298            \iso@yearsep\iso@yearfour{\number#1}%
1299          }{%
```
  short original date format: \iso@printmonthday@norsk~yyyy
```
1300            \ifthenelse{\equal{\iso@dateformat}{shortorig}}{%
1301              \iso@yearsep\iso@twodigitsign\iso@yeartwo{\number#1}%
1302            }{%
```
  short date format: \iso@printmonthday@norsk yy
```
1303              \ifthenelse{\equal{\iso@dateformat}{short}}{%
1304                \iso@yeartwo{\number#1}%
1305              }{}%
1306            }%
1307          }%
1308        }%
1309      \fi
1310    }%
1311 }
```

\iso@datenorsk   This command redefines the \today command to print in the actual date format.

```
1312 \def\iso@datenorsk{%
1313   \def\today{\iso@printdate@norsk{\year}{\month}{\day}}}%
```

\iso@daterange@...   Define date-range commands for dialects.

```
1314 \expandafter\def\csname iso@daterange@\CurrentOption\endcsname{%
1315   \iso@daterange@norsk}%
```

\iso@daterange@norsk   This command takes six arguments ({yyyy1}{mm1}{dd1}{yyyy2}{mm2}{dd2})
and prints the corrosponding date range in the actual date format.

```
1316 \def\iso@daterange@norsk#1#2#3#4#5#6{%
```

ISO or LaTeX date format.

```
1317   \ifthenelse{\equal{\iso@dateformat}{iso}\OR
1318              \equal{\iso@dateformat}{TeX}}{%
1319     \iso@daterange@int{#1}{#2}{#3}{#4}{#5}{#6}%
1320   }{%
```

Numeric, short, or original date format.
    If year and month are equal, only print the day of the start date. If only the
year is equal, only print month and day of the start date. Otherwise print the
whole start date.

```
1321        \ifthenelse{\equal{\number#1}{\number#4}}{%
1322          \ifthenelse{\equal{\number#2}{\number#5}}{%
1323            \ifiso@doprintday
1324              \ifthenelse{\equal{\iso@dateformat}{orig}\OR
1325                          \equal{\iso@dateformat}{shortorig}}{%
1326                \iso@printday{#3}.%
1327              }{%
1328                \iso@printday{#3}%
1329              }%
1330            \else
1331              \iso@printmonthday@norsk{#2}{#3}%
1332            \fi
1333          }{%
1334            \iso@printmonthday@norsk{#2}{#3}%
1335          }%
1336        }{%
1337          \csname iso@printdate@\iso@languagename\endcsname{#1}{#2}{#3}%
1338        }%
```
Print the end date.
```
1339        \iso@rangesign
1340        \csname iso@printdate@\iso@languagename\endcsname{#4}{#5}{#6}%
1341    }%
1342 }
```

\iso@rangesign@norsk   Sets the word between start and end date in a date range to ' til '.

```
1343 \expandafter\def\csname iso@rangesign@\CurrentOption\endcsname{~til~}
```

Define the language name that will the active language for isodate if none of the
packages babel.sty, german.sty, and ngerman.sty is loaded and if this is the last
language that is used for isodate. If one of the above packages is used this definition
will be overridden by the command \languagename that will always return the
current used language.

```
1344 \def\iso@languagename{norsk}%
```

Redefine the command \datenorsk that is used by babel to switch to the original
Norsk date format to enable the use of different date formats. This has to be done
after the preamble in order to ensure to overwrite the babel command.

```
1345 \AtBeginDocument{%
1346   \ifx\undefined\iso@datenorsk\else
1347     \def\datenorsk{\iso@datenorsk}%
1348   \fi
1349 }
1350 ⟨/norsk⟩
```

D.8   Language definition file swedish.idf

This file was provided by Christian Schlauer (christian.schlauer@web.de).

\iso@languageloaded Define the command \iso@languageloaded in order to enable isodate.sty to determine if at least one language is loaded.

```
1351 ⟨*swedish⟩
1352 \let\iso@languageloaded\active
1353 \typeout{Define commands for Swedish date format}
```

\month@swedish Prints the name of today's month in the long form for the original date format.

```
1354 \def\month@swedish{\ifcase\month\or
1355     januari\or februari\or mars\or april\or maj\or juni\or
1356     juli\or augusti\or september\or oktober\or november\or december\fi}
```

\iso@printmonthday@swedish Prints the month and the day given as two arguments ({mm}{dd}) in the current date format.

```
1357 \def\iso@printmonthday@swedish#1#2{%
1358   \ifthenelse{\equal{\iso@dateformat}{iso}\OR
1359             \equal{\iso@dateformat}{TeX}}{%
1360     \iso@printmonthday@int{#1}{#2}%
1361   }{%
```

Numeric and short date format: dd/mm/

```
1362     \ifthenelse{\equal{\iso@dateformat}{numeric}\OR
1363             \equal{\iso@dateformat}{short}}{%
1364       \ifiso@doprintday
1365         \iso@printday{#2}/%
1366       \fi
1367       \iso@printmonth{#1}%
1368     }{%
```

Original date format: d. mmm

```
1369     \ifthenelse{\equal{\iso@dateformat}{orig}\OR
1370             \equal{\iso@dateformat}{shortorig}}{%
1371       \ifiso@doprintday
1372         \iso@printday{#2}.\iso@monthsep
1373       \fi
1374       \begingroup
1375       \edef\lmonth{#1}\def\month{\lmonth}%
1376       \month@swedish%
1377       \endgroup
1378     }{}%
1379   }%
1380   }%
1381 }
```

\iso@printdate@swedish Prints the date given as three arguments ({yyyy}{mm}{dd}) in the actual date format

```
1382 \def\iso@printdate@swedish#1#2#3{%
```

ISO or LaTeXdate format: yyyy\iso@printmonthday@swedish

```
1383   \ifthenelse{\equal{\iso@dateformat}{iso}\OR
1384             \equal{\iso@dateformat}{TeX}}{%
```

```
1385        \iso@printdate@int{#1}{#2}{#3}%
1386    }{%
1387        \iso@printmonthday@swedish{\number#2}{\number#3}%
```
numeric date format: \iso@printmonthday@swedish yyyy
```
1388        \ifiso@printyear
1389          \ifthenelse{\equal{\iso@dateformat}{orig}\OR
1390                      \equal{\iso@dateformat}{shortorig}}{%
1391          }{%
1392            /%
1393          }%
1394          \ifthenelse{\equal{\iso@dateformat}{numeric}}{%
1395            \iso@yearfour{\number#1}%
1396          }{%
```
original date format: \iso@printmonthday@swedish~yyyy
```
1397            \ifthenelse{\equal{\iso@dateformat}{orig}}{%
1398              \iso@yearsep\iso@yearfour{\number#1}%
1399            }{%
```
short original date format: \iso@printmonthday@swedish~yy
```
1400              \ifthenelse{\equal{\iso@dateformat}{shortorig}}{%
1401                \iso@yearsep\iso@twodigitsign\iso@yeartwo{\number#1}%
1402              }{%
```
short date format: \iso@printmonthday@swedish yy
```
1403                \ifthenelse{\equal{\iso@dateformat}{short}}{%
1404                  \iso@yeartwo{\number#1}%
1405                }{}%
1406              }%
1407            }%
1408          }%
1409      \fi
1410    }%
1411 }
```

\iso@dateswedish   This command redefines the \today command to print in the actual date format.
```
1412 \def\iso@dateswedish{%
1413   \def\today{\iso@printdate@swedish{\year}{\month}{\day}}}%
```

\iso@daterange@...   Define date-range commands for dialects.
```
1414 \expandafter\def\csname iso@daterange@\CurrentOption\endcsname{%
1415   \iso@daterange@swedish}%
```

\iso@daterange@swedish   This command takes six arguments ({yyyy1}{mm1}{dd1}{yyyy2}{mm2}{dd2})
and prints the corrosponding date range in the actual date format.
```
1416 \def\iso@daterange@swedish#1#2#3#4#5#6{%
```
ISO or LATEX date format.
```
1417   \ifthenelse{\equal{\iso@dateformat}{iso}\OR
1418               \equal{\iso@dateformat}{TeX}}{%
```

```
1419        \iso@daterange@int{#1}{#2}{#3}{#4}{#5}{#6}%
1420    }{%
```

Numeric, short, or original date format.

If year and month are equal, only print the day of the start date. If only the year is equal, only print month and day of the start date. Otherwise print the whole start date.

```
1421        \ifthenelse{\equal{\number#1}{\number#4}}{%
1422          \ifthenelse{\equal{\number#2}{\number#5}}{%
1423            \ifiso@doprintday
1424              \ifthenelse{\equal{\iso@dateformat}{orig}\OR
1425                          \equal{\iso@dateformat}{shortorig}}{%
1426                \iso@printday{#3}.%
1427              }{%
1428                \iso@printday{#3}%
1429              }%
1430            \else
1431              \iso@printmonthday@swedish{#2}{#3}%
1432            \fi
1433          }{%
1434            \iso@printmonthday@swedish{#2}{#3}%
1435          }%
1436        }{%
1437          \csname iso@printdate@\iso@languagename\endcsname{#1}{#2}{#3}%
1438        }%
```

Print the end date.

```
1439        \iso@rangesign
1440        \csname iso@printdate@\iso@languagename\endcsname{#4}{#5}{#6}%
1441    }%
1442 }
```

\iso@rangesign@swedish   Sets the word between start and end date in a date range to ' till '.

```
1443 \expandafter\def\csname iso@rangesign@\CurrentOption\endcsname{~till~}
```

Define the language name that will the active language for isodate if none of the packages babel.sty, german.sty, and ngerman.sty is loaded and if this is the last language that is used for isodate. If one of the above packages is used this definition will be overridden by the command \languagename that will always return the current used language.

```
1444 \def\iso@languagename{swedish}%
```

Redefine the command \dateswedish that is used by babel to switch to the original Swedish date format to enable the use of different date formats. This has to be done after the preamble in order to ensure to overwrite the babel command.

```
1445 \AtBeginDocument{%
1446   \ifx\undefined\iso@dateswedish\else
1447     \def\dateswedish{\iso@dateswedish}%
1448   \fi
1449 }
1450 ⟨/swedish⟩
```

Change History

Index

Numbers written in italic refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; numbers in roman refer to the code lines where the entry is used.

56