1 The Norwegian language

The file `norsk.dtx`[1] defines all the language definition macros for the Norwegian language as well as for an alternative variant 'nynorsk' of this language.

For this language the character " is made active. In table 1 an overview is given of its purpose.

`"ff`	for `ff` to be hyphenated as `ff-f`, this is also implemented for b, d, f, g, l, m, n, p, r, s, and t. (`o"ppussing`)
`"ee`	Hyphenate `"ee` as `\'e-e`. (`komit"een`)
`"-`	an explicit hyphen sign, allowing hyphenation in the composing words. Use this for compound words when the hyphenation patterns fail to hyphenate properly. (`alpin"-anlegg`)
`"|`	Like `"-`, but inserts 0.03em space. Use it if the compound point is spanned by a ligature. (`hoff"|intriger`)
`""`	Like `"-`, but producing no hyphen sign. (`i""g\aa{}r`)
`"~`	Like -, but allows no hyphenation at all. (`E"~cup`)
`"=`	Like -, but allowing hyphenation in the composing words. (`marksistisk"=leninistisk`)
`"<`	for French left double quotes (similar to <<).
`">`	for French right double quotes (similar to >>).

Table 1: The extra definitions made by `norsk.sty`

Rune Kleveland distributes a Norwegian dictionary for ispell (570000 words). It can be found at `http://www.uio.no/~runekl/dictionary.html`.

This dictionary supports the spellings `spi"sslede` for 'spisslede' (hyphenated spiss-slede) and other such words, and also suggest the spelling `spi"sslede` for 'spisslede' and 'spissslede'.

The macro `\LdfInit` takes care of preventing that this file is loaded more than once, checking the category code of the @ sign, etc.

```
1 ⟨*code⟩
2 \LdfInit\CurrentOption{captions\CurrentOption}
```

When this file is read as an option, i.e. by the `\usepackage` command, `norsk` will be an 'unknown' language in which case we have to make it known. So we check for the existence of `\l@norsk` to see whether we have to do something here.

```
3 \expandafter\ifx\csname l@\CurrentOption\endcsname\relax
4   \def\bbl@tempa#1{%
5     \ifx#1\@undefined\else
6       \expandafter\adddialect\csname l@\CurrentOption\endcsname#1%
7     \fi}% Last wins:
8   \bbl@tempa\l@nynorsk
9   \bbl@tempa\l@norsk
10  \bbl@tempa\l@norwegian
```

---

[1]The file described in this section has version number v2.0j and was last revised on 2024/01/26. Contributions were made by Haavard Helstrup (`HAAVARD@CERNVM`) and Alv Kjetil Holme (`HOLMEA@CERNVM`); the 'nynorsk' variant has been supplied by Per Steinar Iversen (`iversen@vxcern.cern.ch`) and Terje Engeset Petterst (`TERJEEP@VSFYS1.FI.UIB.NO`); the shorthand definitions were provided by Rune Kleveland (`runekl@math.uio.no`).

```
11 \fi
12 \expandafter\ifx\csname l@\CurrentOption\endcsname\relax
13   \@nopatterns{\CurrentOption}
14   \expandafter\adddialect\csname l@\CurrentOption\endcsname\z@
15 \fi
```

\norskhyphenmins Some sets of Norwegian hyphenation patterns can be used with \lefthyphenmin set to 1 and \righthyphenmin set to 2, but the most common set nohyph.tex can't. So we use \lefthyphenmin=2 by default.

```
16 \providehyphenmins{\CurrentOption}{\tw@\tw@}
```

Now we have to decide which version of the captions should be made available. This can be done by checking the contents of \CurrentOption.

The next step consists of defining commands to switch to (and from) the Norwegian language.

\captionsnorsk The macro \captionsnorsk defines all strings used in the four standard documentclasses provided with LaTeX.

```
17 \def\bbl@tempa{nynorsk}
18 \ifx\CurrentOption\bbl@tempa
19   \def\captionsnynorsk{%
20     \def\prefacename{Forord}%
21     \def\refname{Referansar}%
22     \def\abstractname{Samandrag}%
23     \def\bibname{Litteratur}%      or Litteraturoversyn
24      %                              or Referansar
25     \def\chaptername{Kapittel}%
26     \def\appendixname{Tillegg}%    or Appendiks
27     \def\contentsname{Innhald}%
28     \def\listfigurename{Figurar}% or Figurliste
29     \def\listtablename{Tabellar}% or Tabelliste
30     \def\indexname{Register}%
31     \def\figurename{Figur}%
32     \def\tablename{Tabell}%
33     \def\partname{Del}%
34     \def\enclname{Vedlegg}%
35     \def\ccname{Kopi til}%
36     \def\headtoname{Til}% in letter
37     \def\pagename{Side}%
38     \def\seename{Sj\aa{}}%
39     \def\alsoname{Sj\aa{} \'{o}g}%
40     \def\proofname{Bevis}%
41     \def\glossaryname{Ordliste}%
42     }
43 \else
44   \@namedef{captions\CurrentOption}{%
45     \def\prefacename{Forord}%
46     \def\refname{Referanser}%
47     \def\abstractname{Sammendrag}%
48     \def\bibname{Bibliografi}%      or Litteraturoversikt
49     %                               or Litteratur or Referanser
50     \def\chaptername{Kapittel}%
51     \def\appendixname{Tillegg}%     or Appendiks
52     \def\contentsname{Innhold}%
```

```
53    \def\listfigurename{Figurer}%  or Figurliste
54    \def\listtablename{Tabeller}%  or Tabelliste
55    \def\indexname{Register}%
56    \def\figurename{Figur}%
57    \def\tablename{Tabell}%
58    \def\partname{Del}%
59    \def\enclname{Vedlegg}%
60    \def\ccname{Kopi sendt}%
61    \def\headtoname{Til}% in letter
62    \def\pagename{Side}%
63    \def\seename{Se}%
64    \def\alsoname{Se ogs\aa{}}%
65    \def\proofname{Bevis}%
66    \def\glossaryname{Ordliste}%
67    }
68 \fi
```

For the 'nynorsk' version of these definitions we just add a "dialect".

\captionsnynorsk The macro \captionsnynorsk defines all strings used in the four standard documentclasses provided with LaTeX, but using a different spelling than in the command \captionsnorsk.

\datenorsk The macro \datenorsk redefines the command \today to produce Norwegian dates.

```
69 \@namedef{date\CurrentOption}{%
70   \def\today{\number\day.~\ifcase\month\or
71     januar\or februar\or mars\or april\or mai\or juni\or
72     juli\or august\or september\or oktober\or november\or
73     desember\fi
74     \space\number\year}}
```

\extrasnorsk The macro \extrasnorsk will perform all the extra definitions needed for the
\extrasnynorsk Norwegian language. The macro \noextrasnorsk is used to cancel the actions of \extrasnorsk.

Norwegian typesetting requires \frencspacing to be in effect.

```
75 \@namedef{extras\CurrentOption}{\bbl@frenchspacing}
76 \@namedef{noextras\CurrentOption}{\bbl@nonfrenchspacing}
```

For Norsk the " character is made active. This is done once, later on its definition may vary.

```
77 \initiate@active@char{"}
78 \expandafter\addto\csname extras\CurrentOption\endcsname{%
79   \languageshorthands{norsk}}
80 \expandafter\addto\csname extras\CurrentOption\endcsname{%
81   \bbl@activate{"}}
```

Don't forget to turn the shorthands off again.

```
82 \expandafter\addto\csname noextras\CurrentOption\endcsname{%
83   \bbl@deactivate{"}}
```

The code above is necessary because we need to define a number of shorthand commands. These sharthand commands are then used as indicated in table 1.

To be able to define the function of ", we first define a couple of 'support' macros.

\dq We save the original double quote character in `\dq` to keep it available, the math accent `\"` can now be typed as `"`.

```
84 \begingroup \catcode`\"12
85 \def\x{\endgroup
86   \def\@SS{\mathchar"7019 }
87   \def\dq{"}}
88 \x
```

Now we can define the discretionary shorthand commands. The number of words where such hyphenation is required is for each character

b	d	f	g	k	l	n	p	r	s	t
4	4	15	3	43	30	8	12	1	33	35

taken from a list of 83000 ispell-roots.

```
89  \declare@shorthand{norsk}{"b}{\textormath{\bbl@disc b{bb}}{b}}
90  \declare@shorthand{norsk}{"B}{\textormath{\bbl@disc B{BB}}{B}}
91  \declare@shorthand{norsk}{"d}{\textormath{\bbl@disc d{dd}}{d}}
92  \declare@shorthand{norsk}{"D}{\textormath{\bbl@disc D{DD}}{D}}
93  \declare@shorthand{norsk}{"e}{\textormath{\bbl@disc e{\'e}}{}}
94  \declare@shorthand{norsk}{"E}{\textormath{\bbl@disc E{\'E}}{}}
95  \declare@shorthand{norsk}{"F}{\textormath{\bbl@disc F{FF}}{F}}
96  \declare@shorthand{norsk}{"g}{\textormath{\bbl@disc g{gg}}{g}}
97  \declare@shorthand{norsk}{"G}{\textormath{\bbl@disc G{GG}}{G}}
98  \declare@shorthand{norsk}{"k}{\textormath{\bbl@disc k{kk}}{k}}
99  \declare@shorthand{norsk}{"K}{\textormath{\bbl@disc K{KK}}{K}}
100 \declare@shorthand{norsk}{"l}{\textormath{\bbl@disc l{ll}}{l}}
101 \declare@shorthand{norsk}{"L}{\textormath{\bbl@disc L{LL}}{L}}
102 \declare@shorthand{norsk}{"n}{\textormath{\bbl@disc n{nn}}{n}}
103 \declare@shorthand{norsk}{"N}{\textormath{\bbl@disc N{NN}}{N}}
104 \declare@shorthand{norsk}{"p}{\textormath{\bbl@disc p{pp}}{p}}
105 \declare@shorthand{norsk}{"P}{\textormath{\bbl@disc P{PP}}{P}}
106 \declare@shorthand{norsk}{"r}{\textormath{\bbl@disc r{rr}}{r}}
107 \declare@shorthand{norsk}{"R}{\textormath{\bbl@disc R{RR}}{R}}
108 \declare@shorthand{norsk}{"s}{\textormath{\bbl@disc s{ss}}{s}}
109 \declare@shorthand{norsk}{"S}{\textormath{\bbl@disc S{SS}}{S}}
110 \declare@shorthand{norsk}{"t}{\textormath{\bbl@disc t{tt}}{t}}
111 \declare@shorthand{norsk}{"T}{\textormath{\bbl@disc T{TT}}{T}}
```

We need to treat `"f` a bit differently in order to preserve the ff-ligature.

```
112 \declare@shorthand{norsk}{"f}{\textormath{\bbl@discff}{f}}
113 \def\bbl@discff{\penalty\@M
114   \afterassignment\bbl@insertff \let\bbl@nextff= }
115 \def\bbl@insertff{%
116   \if f\bbl@nextff
117     \expandafter\@firstoftwo\else\expandafter\@secondoftwo\fi
118   {\relax\discretionary{ff-}{f}{ff}\allowhyphens}{f\bbl@nextff}}
119 \let\bbl@nextff=f
```

We now define the French double quotes and some commands concerning hyphenation:

```
120 \declare@shorthand{norsk}{"<}{\flqq}
121 \declare@shorthand{norsk}{">}{\frqq}
122 \declare@shorthand{norsk}{"-}{\penalty\@M\-\bbl@allowhyphens}
```

```
123 \declare@shorthand{norsk}{"|}{%
124   \textormath{\penalty\@M\discretionary{-}{}{\kern.03em}%
125               \allowhyphens}{}}
126 \declare@shorthand{norsk}{""}{\hskip\z@skip}
127 \declare@shorthand{norsk}{"~}{\textormath{\leavevmode\hbox{-}}{-}}
128 \declare@shorthand{norsk}{"=}{\penalty\@M-\hskip\z@skip}
```

The macro `\ldf@finish` takes care of looking for a configuration file, setting the main language to be switched on at `\begin{document}` and resetting the category code of @ to its original value.

```
129 \ldf@finish\CurrentOption
130 ⟨/code⟩
131 % Finally, We create  a few proxy files.
132 %
133 %    \begin{macrocode}
134 ⟨*norsk | nynorsk⟩
135 \input norwegian.ldf\relax
136 ⟨/norsk | nynorsk⟩
```