

# 1 The Swedish language

The file `swedish.dtx`<sup>1</sup> defines all the language-specific macros for the Swedish language. This file has borrowed heavily from `finnish.dtx` and `germanb.dtx`.

For this language the character " is made active. In table 1 an overview is given of its purpose. The vertical placement of the "umlaut" in some letters can be controlled this way.

"a	Gives ä, also implemented for "A, "o and "O.
"w, "W	gives å and Å.
"ff	for ff to be hyphenated as ff-f. Used for compound words, such as <code>stra"ffånge</code> , which should be hyphenated as <code>straff-fånge</code> . This is also implemented for b, d, f, g, l, m, n, p, r, s, and t.
"	disable ligature at this position. This should be used for compound words, such as " <code>stra"ffinrättning</code> ", which should not have the ligature "ffi".
"-	an explicit hyphen sign, allowing hyphenation in the rest of the word, such as e. g. in " <code>x"-axeln</code> ".
""	like "-", but producing no hyphen sign (for words that should break at some sign such as <code>och/"eller</code> ).
"~	for an explicit hyphen without a breakpoint; useful for expressions such as " <code>2"~3 veckor</code> " where no line-break is desirable.
"=	an explicit hyphen sign allowing subsequent hyphenation, for expressions such as " <code>studiebidrag och -lån</code> ".
\-	like the old \-, but allowing hyphenation in the rest of the word.

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

Two variations for formatting of dates are added. `\datesymd` makes `\today` output dates formatted as YYYY-MM-DD, which is commonly used in Sweden today. `\datesdmy` formats the date as D/M YYYY, which is also very common in Sweden. These commands should be issued after `\begindocument`.

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{swedish}\captionsswedish
```

When this file is read as an option, i.e. by the `\usepackage` command, `swedish` will be an 'unknown' language in which case we have to make it known. So we

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<sup>1</sup>The file described in this section has version number v2.3e and was last revised on 2021/02/06. Contributions were made by Sten Hellman (`HELLMAN@CERNVM.CERN.CH`) and Erik Östhols (`erik_osthols@yahoo.com`).

check for the existence of `\l@swedish` to see whether we have to do something here.

```
3 \ifx\l@swedish\@undefined
4   \nopatterns{Swedish}
5   \addialect\l@swedish0\fi
```

The next step consists of defining commands to switch to the Swedish language. The reason for this is that a user might want to switch back and forth between languages.

`\captionsswedish` The macro `\captionsswedish` defines all strings used in the four standard documentclasses provided with L<sup>A</sup>T<sub>E</sub>X.

```
6 \addto\captionsswedish{%
7   \def\prefacename{F\ "orord}%
8   \def\refname{Referenser}%
9   \def\abstractname{Sammanfattning}%
10  \def\bibname{Litteraturf\ "orteckning}%
11  \def\chaptername{Kapitel}%
12  \def\appendixname{Bilaga}%
13  \def\contentsname{Inneh\csname aa\endcsname ll}%
14  \def\listfigurename{Figurer}%
15  \def\listtablename{Tabeller}%
16  \def\indexname{Sakregister}%
17  \def\figurename{Figur}%
18  \def\tablename{Tabell}%
19  \def\partname{Del}%
20  \def\enclname{Bil.}%
21  \def\ccname{Kopia f\ "or k\ "annedom}%
22  \def\headtoname{Till}% in letter
23  \def\pagename{Sida}%
24  \def\seename{se}%
25  \def\alsoname{se \ "aven}%
26  \def\proofname{Bevis}%
27  \def\glossaryname{Ordlista}%
28  }%
```

`\dateswedish` The macro `\dateswedish` redefines the command `\today` to produce Swedish dates.

```
29 \def\dateswedish{%
30   \def\today{%
31     \number\day~\ifcase\month\or
32     januari\or februari\or mars\or april\or maj\or juni\or
33     juli\or augusti\or september\or oktober\or november\or
34     december\fi
35     \space\number\year}}
```

`\datesymd` The macro `\datesymd` redefines the command `\today` to produce dates in the format YYYY-MM-DD, common in Sweden.

```

36 \def\datesymd{%
37   \def\today{\number\year-\two@digits\month-\two@digits\day}%
38 }

```

`\datesmy` The macro `\datesmy` redefines the command `\today` to produce Swedish dates in the format DD/MM YYYY, also common in Sweden.

```

39 \def\datesmy{%
40   \def\today{\number\day/\number\month\space\number\year}%
41 }

```

`\swedishhyphenmins` The swedish hyphenation patterns can be used with `\lefthyphenmin` set to 2 and `\righthyphenmin` set to 2.

```

42 \providehyphenmins{swedish}{\tw@\tw@}

```

`\extrasswedish` The macro `\extrasswedish` performs all the extra definitions needed for the Swedish language. The macro `\noextrasswedish` is used to cancel the actions of `\extrasswedish`.

For Swedish texts `\frenchspacing` should be in effect. We make sure this is the case and reset it if necessary.

```

43 \addto\extrasswedish{\bbl@frenchspacing}
44 \addto\noextrasswedish{\bbl@nonfrenchspacing}

```

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

```

45 \initiate@active@char{"}
46 \addto\extrasswedish{\languageshorthands{swedish}}
47 \addto\extrasswedish{\bbl@activate{"}}

```

Don't forget to turn the shorthands off again.

```

48 \addto\noextrasswedish{\bbl@deactivate{"}}

```

The “umlaut” accent macro `\` is changed to lower the “umlaut” dots. The redefinition is done with the help of `\umlautlow`.

```

49 \addto\extrasswedish{\babel@save"\umlautlow}
50 \addto\noextrasswedish{\umlauthigh}

```

The code above is necessary because we need an extra active character. This character is 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 `\`.

```

51 \begingroup \catcode'\12
52 \def\x{\endgroup
53   \def\@SS{\mathchar"7019 }
54   \def\dq{"}}
55 \x

```

Now we can define the doublequote macros: the umlauts and å.

```
56 \declare@shorthand{swedish}{"w}{\textormath{\aa\allowhyphens}{\ddot w}}
57 \declare@shorthand{swedish}{"a}{\textormath{\a\allowhyphens}{\ddot a}}
58 \declare@shorthand{swedish}{"o}{\textormath{\o\allowhyphens}{\ddot o}}
59 \declare@shorthand{swedish}{"W}{\textormath{\AA\allowhyphens}{\ddot W}}
60 \declare@shorthand{swedish}{"A}{\textormath{\A\allowhyphens}{\ddot A}}
61 \declare@shorthand{swedish}{"O}{\textormath{\O\allowhyphens}{\ddot O}}
```

discretionary commands

```
62 \declare@shorthand{swedish}{"b}{\textormath{\bbl@disc b{bb}}{b}}
63 \declare@shorthand{swedish}{"B}{\textormath{\bbl@disc B{BB}}{B}}
64 \declare@shorthand{swedish}{"d}{\textormath{\bbl@disc d{dd}}{d}}
65 \declare@shorthand{swedish}{"D}{\textormath{\bbl@disc D{DD}}{D}}
66 \declare@shorthand{swedish}{"f}{\textormath{\bbl@disc f{ff}}{f}}
67 \declare@shorthand{swedish}{"F}{\textormath{\bbl@disc F{FF}}{F}}
68 \declare@shorthand{swedish}{"g}{\textormath{\bbl@disc g{gg}}{g}}
69 \declare@shorthand{swedish}{"G}{\textormath{\bbl@disc G{GG}}{G}}
70 \declare@shorthand{swedish}{"l}{\textormath{\bbl@disc l{ll}}{l}}
71 \declare@shorthand{swedish}{"L}{\textormath{\bbl@disc L{LL}}{L}}
72 \declare@shorthand{swedish}{"m}{\textormath{\bbl@disc m{mm}}{m}}
73 \declare@shorthand{swedish}{"M}{\textormath{\bbl@disc M{MM}}{M}}
74 \declare@shorthand{swedish}{"n}{\textormath{\bbl@disc n{nn}}{n}}
75 \declare@shorthand{swedish}{"N}{\textormath{\bbl@disc N{NN}}{N}}
76 \declare@shorthand{swedish}{"p}{\textormath{\bbl@disc p{pp}}{p}}
77 \declare@shorthand{swedish}{"P}{\textormath{\bbl@disc P{PP}}{P}}
78 \declare@shorthand{swedish}{"r}{\textormath{\bbl@disc r{rr}}{r}}
79 \declare@shorthand{swedish}{"R}{\textormath{\bbl@disc R{RR}}{R}}
80 \declare@shorthand{swedish}{"s}{\textormath{\bbl@disc s{ss}}{s}}
81 \declare@shorthand{swedish}{"S}{\textormath{\bbl@disc S{SS}}{S}}
82 \declare@shorthand{swedish}{"t}{\textormath{\bbl@disc t{tt}}{t}}
83 \declare@shorthand{swedish}{"T}{\textormath{\bbl@disc T{TT}}{T}}
```

and some additional commands:

```
84 \declare@shorthand{swedish}{"-}{\nobreak-\bbl@allowhyphens}
```

To avoid problems in bookmarks some shorthands should be hyperref aware.

```
85 \providecommand\texorpdfstring[2]{#1}
86 \declare@shorthand{swedish}{"|}{%
87 \texorpdfstring{\textormath{\nobreak\discretionary{-}{\kern.03em}%
88 \bbl@allowhyphens}{-}}{-}}
89 \declare@shorthand{swedish}{"~}{%
90 \texorpdfstring{\textormath{\leavevmode\hbox{-}\bbl@allowhyphens}{-}}{-}}
91 \declare@shorthand{swedish}{""}{\hskip\z@skip}
92 \declare@shorthand{swedish}{"="}{\hbox{-}\allowhyphens}
```

- Redefinition of \-. The new version of \- should indicate an extra hyphenation position, while allowing other hyphenation positions to be generated automatically. The standard behaviour of T<sub>E</sub>X in this respect is very unfortunate for languages such as Dutch, Finnish, German and Swedish, where long compound words are quite normal and all one needs is a means to indicate an extra hyphenation position on top of the ones that T<sub>E</sub>X can generate from the hyphenation patterns.

```
93 \addto\extrasswedish{\babel@save\-}  
94 \addto\extrasswedish{\def\-\{\allowhyphens  
95 \discretionary{-}{-}{\allowhyphens}}
```

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.

```
96 \ldf@finish{swedish}  
97 \end{code}
```