Providing addtional text symbols (previously available through the `textcomp` package)[*]

Frank Mittelbach

December 21, 2019

This file is maintained by the LaTeX Project team.
Bug reports can be opened (category `latex`) at
`https://latex-project.org/bugs.html`.

This file contains the implementation for

`\oldstylenums`
`\legacyoldstylenums`

Preserve the old definition of `\oldstylenums` under a different name.

This macro implements old style numerals but only works if we assume that the standard math fonts are used. Thus it needs changing in case other math encodings are used.

```
⟨/2ekernel⟩
⟨*2ekernel | latexrelease⟩
⟨latexrelease⟩\IncludeInRelease{2020/02/02}%
⟨latexrelease⟩                 {\oldstylenums}{Old style numerals}%
\DeclareRobustCommand\legacyoldstylenums[1]{%
  \begingroup
```

Provide spacing using the interword space of the current font.

```
    \spaceskip\fontdimen\tw@\font
```

Then switch to the math italic font. We don't change the current value of `\f@series` which means that you can use bold numerals if `\bfseries` is in force. As family we use `\rmdefault` which means that this only works if there exist an `OML` encoded version of that font or rather a corresponding `.fd` file (which is the case for standard LaTeX fonts even though they only contain substitutions).

```
    \usefont{OML}{\rmdefault}{\f@series}{it}%
    \mathgroup\symletters #1%
  \endgroup
}
```

[*] This file has version number v1.0a dated 2019/12/16

And here is the improved one that adjusts depending on surroundings.

```
\DeclareRobustCommand\oldstylenums[1]{%
 \begingroup
 \ifmmode
   \mathgroup\symletters #1%
  \else
```

The \CheckEncodingSubset is discused below.

```
   \CheckEncodingSubset\@use@text@encoding{TS1}\tc@oldstylesubst2{{#1}}%
 \fi
 \endgroup
}
```

The helper to select the substitution if needed.

```
\def\tc@oldstylesubst#1{%
   \tc@errorwarn
          {Oldstyle digits unavailable for
           family \f@family.\MessageBreak
           Default oldstyle digits used instead}\@eha
  \bgroup
      \expand@font@defaults
      \ifx\f@family\rmdef@ult
         \fontfamily\rmsubstdefault
      \else\ifx\f@family\sfdef@ult
         \fontfamily\sfsubstdefault
      \else\ifx\f@family\ttdef@ult
         \fontfamily\ttsubstdefault
      \else
        \fontfamily\substdefault
      \fi\fi\fi
      \fontencoding{TS1}\selectfont#1%
  \egroup
}
```

```
⟨/2ekernel | latexrelease⟩
⟨latexrelease⟩\EndIncludeInRelease
⟨latexrelease⟩\IncludeInRelease{0000/00/00}%
⟨latexrelease⟩                 {\oldstylenums}{Old style numerals}%
⟨latexrelease⟩
⟨latexrelease⟩\DeclareRobustCommand\oldstylenums[1]{%
⟨latexrelease⟩   \begingroup
⟨latexrelease⟩    \spaceskip\fontdimen\tw@\font
⟨latexrelease⟩    \usefont{OML}{\rmdefault}{\f@series}{it}%
⟨latexrelease⟩    \mathgroup\symletters #1%
⟨latexrelease⟩   \endgroup
⟨latexrelease⟩}
⟨latexrelease⟩\let\legacyoldstylenums\@undefined
⟨latexrelease⟩
⟨latexrelease⟩\EndIncludeInRelease
⟨*2ekernel⟩
```

Everything else in the this file got introduced 2020/02/02, so we do a single rollback (for now).

```
⟨*2ekernel⟩
⟨/2ekernel⟩
⟨*2ekernel | latexrelease⟩
⟨latexrelease⟩\IncludeInRelease{2020/02/02}%
⟨latexrelease⟩    {\XXX}{Text companion symbols}%
```

`\DeclareEncodingSubset` The declaration takes 3 mandatory arguments: an *encoding* for which a subsetting is wanted (currently always `TS1`, and most likely forever), the *font family* for which we declare the subset and finally the *subset* number (between `0` (all of the encoding is supported) and `9` many glyphs are missing.

For `TS1` the numbers have been choosen in a way that most fonts can be fairly correctly categorized, but the default settings are always conservative, that is they may claim that less glyphs are supported than there actually are.

As these days many font families are set up to end in `-LF` (lining figures), `-OsF` (oldstyle figures), etc. the declaration supports a shortcut: if the *font family* name ends in `-*` then the star gets replaced by these common ending, e.g.,

```
\DeclareEncodingSubeset{TS1}{Alegreya-*}{2}
```

is the same as writing

```
\DeclareEncodingSubeset{TS1}{Alegreya-LF}{2}
\DeclareEncodingSubeset{TS1}{Alegreya-OsF}{2}
\DeclareEncodingSubeset{TS1}{Alegreya-TLF}{2}
\DeclareEncodingSubeset{TS1}{Alegreya-TOsF}{2}
```

If only some are needed then one can define them individually but in many cases all four are wanted, hence the shortcut.

The coding of the declaration has no error checking as it is mostly for internal use.

```
\def\DeclareEncodingSubset#1#2{%
  \DeclareEncodingSubset@aux{#1}#2*\DeclareEncodingSubset@aux
}
```

```
\def\DeclareEncodingSubset@aux#1#2*#3\DeclareEncodingSubset@aux#4{%
```

if `#3` is empty then there was no star, otherwise we we define all four variants.

```
  \expandafter\ifx\expandafter X\detokenize{#3}X%
    \@DeclareEncodingSubset{#1}{#2}{#4}%
  \else
    \@DeclareEncodingSubset{#1}{#2LF}{#4}%
    \@DeclareEncodingSubset{#1}{#2TLF}{#4}%
    \@DeclareEncodingSubset{#1}{#2OsF}{#4}%
    \@DeclareEncodingSubset{#1}{#2TOsF}{#4}%
  \fi
}
```

The subset info is stored in a command with the name \family:*subset* so if that already exists we redeclare.

```
\def\@DeclareEncodingSubset#1#2#3{%
  \@ifundefined{#1:#2}%
    {\@font@info{Setting #2 sub-encoding to #1/#3}}%
    {\@font@info{Changing #2 sub-encoding to #1/#3}}%
    \@namedef{#1:#2}{#3}}
```

Any reason to allow those in the middle of documents?

```
\@onlypreamble\DeclareEncodingSubset
\@onlypreamble\DeclareEncodingSubset@aux
\@onlypreamble\@DeclareEncodingSubset
```

`\CheckEncodingSubset`

The command `\CheckEncodingSubset` will check if the current font family has the right encoding subset to typeset a certain command. It takes five arguments as follows: first argument is either `\UseTextSymbol`, `\UseTextAccent` depending on whether or not the symbol is a text symbol or a text accent.

The second argument is the encoding from which this symbol should be fetched.

The third argument is either a fake accessor command or an error message. the code in that argument (if ever executed) receives two arguments: `#2` and `#5` of `\CheckEncodingSubset`.

Argument four is the subset encoding id to test against: if this value is higher than the subset id of the current font family then we typeset the symbol, i.e., execute `#1{#2}#5` otherwise it runs `#3#5`, e.g., to produce an error message or fake the glyph somehow.

Argument five is the symbol or accent command that is being checked.

For usage examples see definitions below.

```
\def\CheckEncodingSubset#1#2#3#4#5{%
    \ifnum #4>%
      \expandafter\ifx\csname #2:\f@family\endcsname\relax
        0\csname #2:?\endcsname
      \else
        \csname #2:\f@family\endcsname
      \fi
   \relax
   \expandafter\@firstoftwo
  \else
   \expandafter\@secondoftwo
  \fi
  {#1{#2}}{#3}%
  #5%
}
```

```
%\ifx\Umathcode\@undefined
```

```
%\fi
```

`\textcompsubstdefault`

```
\def\textcompsubstdefault{\rmsubstdefault}
```

Supporting rollback …

```
⟨/2ekernel | latexrelease⟩
⟨latexrelease⟩\EndIncludeInRelease
⟨latexrelease⟩\IncludeInRelease{0000/00/00}%
⟨latexrelease⟩    {\XXX}{Text companion symbols}%
⟨latexrelease⟩
⟨latexrelease⟩
⟨latexrelease⟩
⟨latexrelease⟩
⟨latexrelease⟩\EndIncludeInRelease
⟨*2ekernel⟩
⟨/2ekernel⟩
```