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neoshorthands

Abstract

This is the documentation of the package neoshorthands. It is a tool to use the powerfull Neo-layout with XeLaTeX. It does not do very much, but mapping many of the usefull symbols to TeX commands. will be converted to \tau. This package does *not* define fancy commands and is therefore very robust. Just say \usepackage{neoshorthands}. If you find any incompatiblities with any package, pleas drop me a mail and maybe I can take care of it.

The single command of this package is \neoshorthand{ }\tau wich maps the command onto the given symbol. You can add your own definitions, but please consider to send me the code so I could add it to the package. Only with the help of many people, this package can be usefull for many people!

\sh{ }\tau is a shorthand for \neoshorthand. It could have been \ns for \neoshorthand, but I found \ns not to be an appropriate macro name.

Special thanks to the guys on german TeX mailinglist tex-d-l who gave me the code (I copied it from the alttex package).

Contents

Implementation

First, the helper macros. Thanks to the german mailinglist participants!

```
\RequirePackage{xkeyval}
\def\add@special#1{%
  \rem@special{#1}%
  \expandafter\gdef\expandafter\dospecials\expandafter
{\dospecials␣\do␣#1}%
  \expandafter\gdef\expandafter\@sanitize\expandafter
{\@sanitize␣\@makeother␣#1}}
\def\rem@special#1{%
```

\add@special

\rem@special

```
  \def\do##1{%
    \ifnum`#1=`##1␣\else␣\noexpand\do\noexpand##1\fi}%
  \xdef\dospecials{\dospecials}%
  \begingroup
    \def\@makeother##1{%
      \ifnum`#1=`##1␣\else␣\noexpand\@makeother\noexpand##1\fi}%
    \xdef\@sanitize{\@sanitize}%
  \endgroup}
\neoshorthand
\def\neoshorthand#1#2{%
  \expandafter\ifx\csname␣cc\string#1\endcsname\relax
    \add@special{#1}%
    \expandafter
    \xdef\csname␣cc\string#1\endcsname{\the\catcode`#1}%
    \begingroup
      \catcode`\~\active␣␣\lccode`\~`#1%
      \lowercase{%
      \global\expandafter\let
         \csname␣ac\string#1\endcsname~%
      \expandafter\gdef\expandafter~\expandafter{#2}}%
    \endgroup
    \global\catcode`#1\active
  \else
  \fi
}
\makeneosection
\def\makeneosection#1{
  \count@\escapechar\escapechar\m@ne\expandafter\let\csname␣if#1%
        \endcsname\iffalse\expandafter\@if\csname␣if#1\endcsname%
        \iftrue\expandafter\@if\csname␣if#1\endcsname\iffalse%
        \escapechar\count@%
  \csname#1true\endcsname
no#1
  \DeclareOptionX{no#1}{\expandafter\csname#1false\endcsname}
}
\neosection
\def\neosection#1{
  \expandafter\csname␣if#1\endcsname␣\let\sh\neoshorthand␣\else␣\let%
        \sh\@gobbletwo␣\fi
}

\makeneosection{greek}
\makeneosection{math}
\makeneosection{sets}
\makeneosection{arrows}
\makeneosection{bbm}
\makeneosection{fractions}
\makeneosection{subscripts}

exclude
\DeclareOptionX{exclude}{\def\excludeoptions{#1}}
\excludeoptions
\ProcessOptionsX

\ifpackage@option@math
\newif\ifpackage@option@math
\package@option@mathtrue

\package@test@exclude
\def\package@test@exclude{%
```

```
  \@for\@tempa:=\excludeoptions\do{%
    \ifcsname␣ifpackage@option@\@tempa\endcsname
      \package@option@mathfalse
      \@nameuse{package@option@\@tempa␣false}%
    \fi
  }%
}
\package@test@exclude
\ifx\excludeoptions\@emtpy\else
  \package@test@exclude
\fi
```

And from here on, the great list of symbols is defined.

greek

```
\neosection{greek}
\sh{ }\alpha
\sh{ }\beta
\sh{ }\gamma
\sh{ }\delta
\sh{ }\epsilon
\sh{ }\eta
\sh{ }\theta
\sh{ }\mu
\sh{ }\nu
\sh{ }\lambda
\sh{ }\pi
\sh{ }\sigma
\sh{ }\xi
\sh{ }\psi
\sh{ }\phi
\sh{ }\zeta
\sh{ }\tau
\sh{ }\rho
\sh{ }\upsilon
\sh{ }\omega
\sh{Γ}\Gamma
\sh{Δ}\Delta
\sh{Π}\Pi
\sh{Φ}\Phi
\sh{Ξ}\Xi
```

careful! Σ will give a sum-sign, not a Sigma!!

```
\sh{Σ}\sum
\sh{Ω}\Omega
```

arrows

```
\neosection{arrows}
```

```
\sh{ }\Leftarrow
\sh{ }\Rightarrow
\sh{ }\Leftrightarrow
\sh{→}\rightarrow
```

mathematical symbols

```
\neosection{math}
\sh{√}\sqrt
\sh{ }\int
\sh{ }\partial
\sh{ }\exists
\sh{ϖ}\infty
\sh{ }\aleph
\sh{ }\ge
\sh{ }\le
\sh{·}\cdot
```

sets and logic

```
\neosection{sets}
\sh{ }\emptyset
\sh{ }\subset
\sh{ }\cup
\sh{ }\cap
\sh{ }\in
\sh{ }\notin
\sh{ }\forall
```

sub/superscript

```
\neosection{subscripts}
\def\subo{_0}
\def\subi{_1}
\def\subii{_2}
\sh{ }\subo
\sh{ }\subi
\sh{ }\subii
\def\supii{^2}
\def\supiii{^3}
\def\supiv{^4}
\def\supvi{^6}
\sh{²}\supii
\sh{³}\supiii
\sh{ }\supiv
\sh{ }\supvi
```

```
\neosection{fractions}
```

```
\sh@half    131 \def\sh@half{\bgroup\textstyle\frac␣12\egroup}
\sh@quarter 132 \def\sh@quarter{\bgroup\textstyle\frac␣12\egroup}
            133 \sh{½}\sh@half
            134 \sh{¼}\sh@quarter
```

blackboard bold math

bbm needs some special treatment, as `\mathbb` is not known without the package. So we hide it and wrap it etc.

```
            135 \neosection{bbm}
\makemathbb 136 \def\makemathbb#1{
            137   \expandafter\def␣\csname␣mathbb#1\endcsname{\mathbb{#1}}
            138 }
            139 \makemathbb␣C
            140 \makemathbb␣N
            141 \makemathbb␣R
            142 \makemathbb␣Q
            143 \makemathbb␣Z
            144 \sh{ }\mathbbC
            145 \sh{ }\mathbbN
            146 \sh{ }\mathbbR
            147 \sh{ }\mathbbQ
            148 \sh{ }\mathbbZ
```

149 ⟨/package⟩

contribution

If you want to change a certain symbol in your document, you have to use the command `\neoshorthand`, as `\sh` will no longer be defined after this package is loaded. I think, the name is too good to be blocked by such a function. Thanks to Dennis „f“ Heidsiek and Sebastian Werk for submitting some `\sh`-lines!

□