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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).

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## Implementation

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

```
1  \RequirePackage{xkeyval}
\add@special
2  \def\add@special#1{%
3    \rem@special{#1}%
4    \expandafter\gdef\expandafter\dospecials\expandafter
5  {\dospecials␣\do␣#1}%
6    \expandafter\gdef\expandafter\@sanitize\expandafter
7  {\@sanitize␣\@makeother␣#1}}
\rem@special
8  \def\rem@special#1{%
9    \def\do##1{%
10     \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
}
\let\sh\neoshorthand
```

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

## greek

```
\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
  \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}
\ProcessOptionsX
\neosection{greek}
\sh{ }\alpha
\sh{ }\beta
```

```
\sh{ }\gamma
\sh{ }\delta
\sh{ }\epsilon
\sh{ }\eta
\sh{ }\mu
\sh{ }\nu
\sh{ }\pi
\sh{ }\sigma
\sh{ }\psi
\sh{ }\phi
\sh{ }\zeta
\sh{ }\tau
\sh{ }\omega
```

```
\sh{Γ}\Gamma
\sh{Δ}\Delta
\sh{Π}\Pi
\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{ }\emptyset
```

## sets and logic

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

```
\sh{ }\forall
```

### blackboard bold math

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

```
\neosection{bbm}
\def\makemathbb#1{
  \expandafter\def␣\csname␣mathbb#1\endcsname{\mathbb{#1}}
}
\makemathbb␣C
\makemathbb␣N
\makemathbb␣R
\makemathbb␣Q
\makemathbb␣Z
\sh{ }\mathbbC
\sh{ }\mathbbN
\sh{ }\mathbbR
\sh{ }\mathbbQ
\sh{ }\mathbbZ
\let\sh\undefined
```

\makemathbb

⟨/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 all people that have submitted additions:
Dennis-f

□