The stb-nomencl package*

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Abstract

Simple utility to set a nomenclature or list of symbols for Stellenbosch theses.

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*This document corresponds to stb-nomencl v1.1, dated 2023/07/25.

1 stb-nomencl

1.1 Introduction

The stb-nomencl package is a very simple utility to set a nomenclature or list of symbols. There are more sophisticated packages available such as nomenclature. The package is loaded in the preamble of the document with

```
\usepackage{stb-nomencl}
```

1.2 Macros

Nomenclature environment

The package provides the `Nomencl` list environment to typeset lists of symbols.

```
\begin{Nomencl}[⟨Label width⟩]
   ⟨Nomenclature entries⟩
\end{Nomencl}
```

The optional argument (valid TEX length) can be used to adjust the label width.

Headings

Headings can be set with the `\NomGroup` command.

```
\NomGroup{⟨Heading⟩}
```

Lines with units declarations

Items with units declarations can be set with the `\UnitLine` command.

```
\UnitLine[⟨unit width⟩]{⟨description⟩}{⟨unit⟩}
```

The unit is set in math mode with upright roman font. The default width of the unit label can be changed with the `\UnitLabelWdth` length

```
\setlength{\UnitLabelWdth}{2.5cm}
```

The format of the unit label can be changed by redefining the `\UnitLabel` macro. For example if you are using the siunitx package to format the units:

```
\usepackage{siunitx}
\sisetup{output-decimal-marker = {.} ,
         group-separator       = {\,},
         number-unit-product   = {\,},
         inter-unit-product    = \mathord{\cdot},
         exponent-product      = \mathord{\times},
         separate-uncertainty  = true}

\usepackage{stb-nomencl}
\renewcommand*{\UnitLabel}[1]{~[\,\unit{#1}\,]}
```

1.3 Example of usage

An example of the input of a list of symbols is

```
\begin{Nomencl}[2em]
\NomGroup{Constants}
   \item[$L_0 = $]        3.0\,m

\NomGroup{Variables}
   \item[$\mathit{Re}_\mathrm{\,D}$]
                      Reynolds number (diameter)
   \item[$x$]         Coordinate
   \item[$a$]         Acceleration   \\
   \item[$\theta$]    Rotation angle
   \item[$\tau$]      Moment

\NomGroup{Variables with units}
   \item[$\mathit{Re}_\mathrm{\,D}$]
                      \UnitLine{Reynolds number (diameter)}{-}
   \item[$x$]         \UnitLine{Coordinate                }{m}
   \item[$a$]         \UnitLine{Acceleration              }{m/s^2}\\
   \item[$\theta$]    \UnitLine{Rotation angle            }{rad}
   \item[$\tau$]      \UnitLine{Moment                    }{N\cdot m}
\end{Nomencl}
```

Constants

$L_0 =$ 3.0 m

Variables

Re_D	Reynolds number (diameter)
x	Coordinate
a	Acceleration
θ	Rotation angle
τ	Moment

Variables with units

Re_D	Reynolds number (diameter)	$[-]$
x	Coordinate	$[\mathrm{m}]$
a	Acceleration	$[\mathrm{m/s^2}]$
θ	Rotation angle	$[\mathrm{rad}]$
τ	Moment	$[\mathrm{N\cdot m}]$

---

2 Implementation: stb-nomencl

Identification

```
⟨*pkg⟩
\NeedsTeXFormat{LaTeX2e}
\ProvidesPackage{stb-nomencl}[2023/07/25
                              v1.1
                              Stellenbosch Thesis Nomenclature (DNJ ELS)]
```

External packages

```
\RequirePackage{calc}
```

\STBN@tdima
\STBN@NomGrpSep

```
\newlength{\STBN@tdima}
\newlength{\STBN@NomGrpSep}
```

\NomGrpSep
\NomItmSep
\NomItmMrg
\NomLblSep

```
\newlength{\NomGrpSep}
\newlength{\NomItmSep}
\newlength{\NomItmMrg}
\newlength{\NomLblSep}

\setlength{\NomGrpSep}{\baselineskip}
\setlength{\NomItmSep}{\smallskipamount}
\setlength{\NomItmMrg}{1em}
\setlength{\NomLblSep}{1em}
```

\NomGrpLabel

```
\newcommand{\NomGrpLabel}[1]{\textbf{#1}}
```

\STBN@NomGrpSep

```
\setlength{\STBN@NomGrpSep}{0pt}
```

\NomGroup

```
\newcommand\NomGroup[1]{%<-Group Headings
  \vspace{\STBN@NomGrpSep}%
  \setlength{\STBN@NomGrpSep}{\NomGrpSep}%
  \item[\hspace*{-\NomItmMrg}\NomGrpLabel{#1}]}
```

\NomLabel

```
\newcommand{\NomLabel}[1]{#1\hfil}
```

Nomencl (*env.*)

```
\newenvironment{Nomencl}[1][2em]%<- Nomenclature list environment
  {\list{}{%
     \setlength{\labelwidth}{#1}%
     \setlength{\labelsep}{\NomLblSep}%
     \setlength{\itemindent}{0pt}%
     \setlength{\leftmargin}{\labelwidth+\labelsep-\itemindent+\NomItmMrg}%
     \setlength{\listparindent}{\parindent}%
     \setlength{\itemsep}{\NomItmSep}%
```

```
      \setlength{\parsep}{\parskip}%
      \let\makelabel\NomLabel}}%
  {\endlist}
```

`\UnitLabel`

```
\newcommand*{\UnitLabel}[1]{~[\,\ensuremath{\mathrm{#1}}\,]}
```

`\UnitLabelWdth`

```
\newlength{\UnitLabelWdth}
\setlength{\UnitLabelWdth}{2cm}
```

`\UnitLine`

```
\newcommand{\UnitLine}[3][\UnitLabelWdth]{{%
    \setlength{\STBN@tdima}{#1}%
    \rightskip\STBN@tdima\relax
    \parfillskip -\rightskip
    \leavevmode
    {#2}\nobreak
    \leaders\hbox{$\m@th\mkern \@dotsep mu\hbox{\tiny.}\mkern \@dotsep mu$}%
    \hfill
    \nobreak
    \makebox[\STBN@tdima][l]{\UnitLabel{#3}}%
}}
```

⟨/pkg⟩

The end of this package.

Change History

v1.0

General: Initial version 1

v1.1

General: Change licence to CC BY 4.0 1