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usnomencl.sty*

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

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*This document corresponds to usnomencl v1.1, dated 2008/05/30.

1 USnomencl

1.1 Introduction

The USnomencl 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{usnomencl}
```

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 SIstyle package, then

```
\renewcommand*{\UnitLabel}[1]{~[\,\SI{}{#1}\,]}
```

1.3 Example of usage

An example of the input of a list of symbols is

```
\begin{Nomencl}[2em]
\NomGroup{Constants}
   \item[$\pi = $]        3.141\,592\,654
   \item[$\mathrm{e} = $] 2.718\,281\,828

\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

$\pi =$	$3.141\,592\,654$
$\mathrm{e} =$	$2.718\,281\,828$

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: USnomencl

Identification

```
1 ⟨*pkg⟩
2 \NeedsTeXFormat{LaTeX2e}[1999/12/01]
3 \ProvidesPackage{usnomencl}[2008/05/30
4                             v1.1
5                             Stellenbosh Thesis Nomenclature (DNJ ELS)]
```

External packages

```
6 \RequirePackage{calc}
```

\USN@tdima
\USN@NomGrpSep

```
7 \newlength{\USN@tdima}
8 \newlength{\USN@NomGrpSep}
```

\NomGrpSep
\NomItmSep
\NomItmMrg
\NomLblSep

```
9 \newlength{\NomGrpSep}
10 \newlength{\NomItmSep}
11 \newlength{\NomItmMrg}
12 \newlength{\NomLblSep}

13 \setlength{\NomGrpSep}{\baselineskip}
14 \setlength{\NomItmSep}{\smallskipamount}
15 \setlength{\NomItmMrg}{1em}
16 \setlength{\NomLblSep}{1em}
```

\NomGrpLabel

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

\USN@NomGrpSep

```
18 \setlength{\USN@NomGrpSep}{0pt}
```

\NomGroup

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

\NomLabel

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

Nomencl

```
24 \newenvironment{Nomencl}[1][2em]%<- Nomenclature list environment
25    {\list{}{%
26       \setlength{\labelwidth}{#1}%
27       \setlength{\labelsep}{\NomLblSep}%
28       \setlength{\itemindent}{0pt}%
29       \setlength{\leftmargin}{\labelwidth+\labelsep-\itemindent+\NomItmMrg}%
30       \setlength{\listparindent}{\parindent}%
31       \setlength{\itemsep}{\NomItmSep}%
32       \setlength{\parsep}{\parskip}%
33       \let\makelabel\NomLabel}}%
34   {\endlist}
```

\UnitLabel

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

\UnitLabelWdth

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

\UnitLine

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

⟨/pkg⟩

The end of this package.

Change History