The **texvc** package[*]

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Abstract

This package provides all LaTeX command availible in MediaWiki. This includes several packages like amsmath, and adds some specific commands such as \Reals.

1 Introduction

1.1 Arrows

The first group of MediaWiki coustom command (other_delimiters2) defines short hand notations for some arrorws.

\darr	Short hand notation for arrow $\downarrow$.
\dArr	Short hand notation for arrow $\Downarrow$.
\Darr	Short hand notation for arrow $\Downarrow$.
\lang	Short hand notation for arrow $\langle$.
\rang	Short hand notation for arrow $\rangle$.
\uarr	Short hand notation for arrow $\uparrow$.
\uArr	Short hand notation for arrow $\Uparrow$.
\Uarr	Short hand notation for arrow $\Uparrow$.

1.2 Literals

The second group of MediaWiki coustom commands (other_litereals3) defines short hand notations for some literals.

\C	Short hand notation for literal $\mathbb{C}$.
\H	Short hand notation for literal $\mathbb{H}$.
\N	Short hand notation for literal $\mathbb{N}$.
\Q	Short hand notation for literal $\mathbb{Q}$.
\R	Short hand notation for literal $\mathbb{R}$.
\Z	Short hand notation for literal $\mathbb{Z}$.
\alef	Short hand notation for literal $\aleph$.
\alefsym	Short hand notation for literal $\aleph$.

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[*]This document corresponds to texvc v1.1, dated 2018/03/04.

`\Alpha`	Short hand notation for literal A.
`\and`	Short hand notation for literal $\wedge$.
`\ang`	Short hand notation for literal $\angle$.
`\Beta`	Short hand notation for literal B.
`\bull`	Short hand notation for literal $\bullet$.
`\Chi`	Short hand notation for literal X.
`\clubs`	Short hand notation for literal $\clubsuit$.
`\cnums`	Short hand notation for literal $\mathbb{C}$.
`\Complex`	Short hand notation for literal $\mathbb{C}$.
`\Dagger`	Short hand notation for literal $\ddagger$.
`\diamonds`	Short hand notation for literal $\diamondsuit$.
`\Doteq`	Short hand notation for literal $\doteq$.
`\doublecap`	Short hand notation for literal $\Cap$.
`\doublecup`	Short hand notation for literal $\Cup$.
`\empty`	Short hand notation for literal $\emptyset$.
`\Epsilon`	Short hand notation for literal E.
`\Eta`	Short hand notation for literal H.
`\exist`	Short hand notation for literal $\exists$.
`\ge`	Short hand notation for literal $\geq$.
`\gggtr`	Short hand notation for literal $\ggg$.
`\hAar`	Short hand notation for literal $\Leftrightarrow$.
`\harr`	Short hand notation for literal $\leftrightarrow$.
`\Harr`	Short hand notation for literal $\Leftrightarrow$.
`\hearts`	Short hand notation for literal $\heartsuit$.
`\image`	Short hand notation for literal $\Im$.
`\infin`	Short hand notation for literal ∞.
`\Iota`	Short hand notation for literal I.
`\isin`	Short hand notation for literal $\in$.
`\Kappa`	Short hand notation for literal K.
`\larr`	Short hand notation for literal $\leftarrow$.
`\Larr`	Short hand notation for literal $\Leftarrow$.
`\lArr`	Short hand notation for literal $\Leftarrow$.
`\le`	Short hand notation for literal $\leq$.
`\lrarr`	Short hand notation for literal $\leftrightarrow$.
`\Lrarr`	Short hand notation for literal $\Leftrightarrow$.
`\lrArr`	Short hand notation for literal $\Leftrightarrow$.
`\Mu`	Short hand notation for literal M.
`\natnums`	Short hand notation for literal $\mathbb{N}$.
`\ne`	Short hand notation for literal $\neq$.
`\Nu`	Short hand notation for literal N.
`\O`	Short hand notation for literal $\emptyset$.
`\omicron`	Short hand notation for literal o.
`\Omicron`	Short hand notation for literal O.
`\or`	Short hand notation for literal $\vee$.
`\part`	Short hand notation for literal ∂.
`\plusmn`	Short hand notation for literal $\pm$.

\rarr	Short hand notation for literal $\rightarrow$.
\Rarr	Short hand notation for literal $\Rightarrow$.
\rArr	Short hand notation for literal $\Rightarrow$.
\real	Short hand notation for literal $\Re$.
\reals	Short hand notation for literal $\mathbb{R}$.
\Reals	Short hand notation for literal $\mathbb{R}$.
\restriction	Short hand notation for literal $\upharpoonright$.
\Rho	Short hand notation for literal P.
\sdot	Short hand notation for literal $\cdot$.
\sect	Short hand notation for literal §.
\spades	Short hand notation for literal $\spadesuit$.
\sub	Short hand notation for literal $\subset$.
\sube	Short hand notation for literal $\subseteq$.
\supe	Short hand notation for literal $\supseteq$.
\Tau	Short hand notation for literal T.
\thetasym	Short hand notation for literal ϑ.
\varcoppa	Short hand notation for literal ϙ.
\weierp	Short hand notation for literal $\wp$.
\Zeta	Short hand notation for literal Z.

2   Implementation

\darr   This macro does the following replacement.

```
1 \newcommand{\darr}{\downarrow}
```

\dArr   This macro does the following replacement.

```
2 \newcommand{\dArr}{\Downarrow}
```

\Darr   This macro does the following replacement.

```
3 \newcommand{\Darr}{\Downarrow}
```

\lang   This macro does the following replacement.

```
4 \newcommand{\lang}{\langle}
```

\rang   This macro does the following replacement.

```
5 \newcommand{\rang}{\rangle}
```

\uarr   This macro does the following replacement.

```
6 \newcommand{\uarr}{\uparrow}
```

\uArr   This macro does the following replacement.

```
7 \newcommand{\uArr}{\Uparrow}
```

\Uarr   This macro does the following replacement.

```
8 \newcommand{\Uarr}{\Uparrow}
```

`\C`	This macro does the following replacement.
	9 `%\newcommand{\C}{\mathbb{C}}`
`\H`	This macro does the following replacement.
	10 `\renewcommand{\H}{\mathbb{H}}`
`\N`	This macro does the following replacement.
	11 `\newcommand{\N}{\mathbb{N}}`
`\Q`	This macro does the following replacement.
	12 `\newcommand{\Q}{\mathbb{Q}}`
`\R`	This macro does the following replacement.
	13 `\newcommand{\R}{\mathbb{R}}`
`\Z`	This macro does the following replacement.
	14 `\newcommand{\Z}{\mathbb{Z}}`
`\alef`	This macro does the following replacement.
	15 `\newcommand{\alef}{\aleph}`
`\alefsym`	This macro does the following replacement.
	16 `\newcommand{\alefsym}{\aleph}`
`\Alpha`	This macro does the following replacement.
	17 `\newcommand{\Alpha}{\mathrm{A}}`
`\and`	This macro does the following replacement.
	18 `\renewcommand{\and}{\land}`
`\ang`	This macro does the following replacement.
	19 `\newcommand{\ang}{\angle}`
`\Beta`	This macro does the following replacement.
	20 `\newcommand{\Beta}{\mathrm{B}}`
`\bull`	This macro does the following replacement.
	21 `\newcommand{\bull}{\bullet}`
`\Chi`	This macro does the following replacement.
	22 `\newcommand{\Chi}{\mathrm{X}}`
`\clubs`	This macro does the following replacement.
	23 `\newcommand{\clubs}{\clubsuit}`
`\cnums`	This macro does the following replacement.
	24 `\newcommand{\cnums}{\mathbb{C}}`

\Complex	This macro does the following replacement.
	25 \newcommand{\Complex}{\mathbb{C}}
\Dagger	This macro does the following replacement.
	26 \newcommand{\Dagger}{\ddagger}
\diamonds	This macro does the following replacement.
	27 \newcommand{\diamonds}{\diamondsuit}
\Doteq	This macro does the following replacement.
	28 \renewcommand{\Doteq}{\doteqdot}
\doublecap	This macro does the following replacement.
	29 \renewcommand{\doublecap}{\Cap}
\doublecup	This macro does the following replacement.
	30 \renewcommand{\doublecup}{\Cup}
\empty	This macro does the following replacement.
	31 \renewcommand{\empty}{\emptyset}
\Epsilon	This macro does the following replacement.
	32 \newcommand{\Epsilon}{\mathrm{E}}
\Eta	This macro does the following replacement.
	33 \newcommand{\Eta}{\mathrm{H}}
\exist	This macro does the following replacement.
	34 \newcommand{\exist}{\exists}
\ge	This macro does the following replacement.
	35 \renewcommand{\ge}{\geq}
\gggtr	This macro does the following replacement.
	36 \renewcommand{\gggtr}{\ggg}
\hAar	This macro does the following replacement.
	37 \newcommand{\hAar}{\Leftrightarrow}
\harr	This macro does the following replacement.
	38 \newcommand{\harr}{\leftrightarrow}
\Harr	This macro does the following replacement.
	39 \newcommand{\Harr}{\Leftrightarrow}
\hearts	This macro does the following replacement.
	40 \newcommand{\hearts}{\heartsuit}

\image	This macro does the following replacement.
	41 \newcommand{\image}{\Im}
\infin	This macro does the following replacement.
	42 \newcommand{\infin}{\infty}
\Iota	This macro does the following replacement.
	43 \newcommand{\Iota}{\mathrm{I}}
\isin	This macro does the following replacement.
	44 \newcommand{\isin}{\in}
\Kappa	This macro does the following replacement.
	45 \newcommand{\Kappa}{\mathrm{K}}
\larr	This macro does the following replacement.
	46 \newcommand{\larr}{\leftarrow}
\Larr	This macro does the following replacement.
	47 \newcommand{\Larr}{\Leftarrow}
\lArr	This macro does the following replacement.
	48 \newcommand{\lArr}{\Leftarrow}
\le	This macro does the following replacement.
	49 \renewcommand{\le}{\leq}
\lrarr	This macro does the following replacement.
	50 \newcommand{\lrarr}{\leftrightarrow}
\Lrarr	This macro does the following replacement.
	51 \newcommand{\Lrarr}{\Leftrightarrow}
\lrArr	This macro does the following replacement.
	52 \newcommand{\lrArr}{\Leftrightarrow}
\Mu	This macro does the following replacement.
	53 \newcommand{\Mu}{\mathrm{M}}
\natnums	This macro does the following replacement.
	54 \newcommand{\natnums}{\mathbb{N}}
\ne	This macro does the following replacement.
	55 \renewcommand{\ne}{\neq}
\Nu	This macro does the following replacement.
	56 \newcommand{\Nu}{\mathrm{N}}

\O   This macro does the following replacement.

```
57 \renewcommand{\O}{\emptyset}
```

\omicron   This macro does the following replacement.

```
58 \newcommand{\omicron}{\mathrm{o}}
```

\Omicron   This macro does the following replacement.

```
59 \newcommand{\Omicron}{\mathrm{O}}
```

\or   This macro does the following replacement.

```
60 \let\@oldor\or
61 \def\@fnsymbol#1{\ensuremath{\ifcase#1
62   \@oldor *
63   \@oldor \dagger
64   \@oldor \ddagger
65   \@oldor \mathsection
66   \@oldor \mathparagraph
67   \@oldor \|
68   \@oldor **
69   \@oldor \dagger\dagger
70   \@oldor \ddagger\ddagger
71   \else\@ctrerr\fi}}
72 %TODO: move the following line inside the if statement
73 \def\or{\ifmmode\lor\else\expandafter\@oldor\fi}
74 \iftexvc@overwriteOr
75   \def\or{\ifmmode\lor\else\expandafter\@oldor\fi}
76 \fi
```

This is a problematic macro, since it redefines the plain TEX macro \or. Since the \thanks command uses a custom function to determine the footnotesymol, which includes the use of \or in math mode, we need to rewrite this symbol selection command. However, there might be more commands that use \or used in mathmode. Thus we don't overwrite \or by default. To enable the the or overwriting use the option overwrite-or.

\part   This macro does the following replacement.

```
77 \renewcommand{\part}{\partial}
```

\plusmn   This macro does the following replacement.

```
78 \newcommand{\plusmn}{\pm}
```

\rarr   This macro does the following replacement.

```
79 \newcommand{\rarr}{\rightarrow}
```

\Rarr   This macro does the following replacement.

```
80 \newcommand{\Rarr}{\Rightarrow}
```

\rArr   This macro does the following replacement.

```
81 \newcommand{\rArr}{\Rightarrow}
```

\real	This macro does the following replacement. 82 \newcommand{\real}{\Re}
\reals	This macro does the following replacement. 83 \newcommand{\reals}{\mathbb{R}}
\Reals	This macro does the following replacement. 84 \newcommand{\Reals}{\mathbb{R}}
\restriction	This macro does the following replacement. 85 \renewcommand{\restriction}{\upharpoonright}
\Rho	This macro does the following replacement. 86 \newcommand{\Rho}{\mathrm{P}}
\sdot	This macro does the following replacement. 87 \newcommand{\sdot}{\cdot}
\sect	This macro does the following replacement. 88 \newcommand{\sect}{\S}
\spades	This macro does the following replacement. 89 \newcommand{\spades}{\spadesuit}
\sub	This macro does the following replacement. 90 \newcommand{\sub}{\subset}
\sube	This macro does the following replacement. 91 \newcommand{\sube}{\subseteq}
\supe	This macro does the following replacement. 92 \newcommand{\supe}{\supseteq}
\Tau	This macro does the following replacement. 93 \newcommand{\Tau}{\mathrm{T}}
\thetasym	This macro does the following replacement. 94 \newcommand{\thetasym}{\vartheta}
\varcoppa	This macro does the following replacement. 95 \newcommand{\varcoppa}{\mbox{\coppa}}
\weierp	This macro does the following replacement. 96 \newcommand{\weierp}{\wp}
\Zeta	This macro does the following replacement. 97 \newcommand{\Zeta}{\mathrm{Z}}