lstEventB.sty

None

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None

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1. lstEventB.sty

lstEventB.sty is a LaTeX package for listing Event-B models. It was developed at the University of Southampton.

2. User Guide

2.1 Package Loading

Just like any other package, you need to request this package with a `usepackage` command in the preamble. So in the simpler case (i.e., without any options), one just types

```
\usepackage{lstEventB}
```

to load the package

2.2 Package Options

lstEventB.sty currently support the following options

- `colour | color`: Enable the colours for Event-B code.

2.3 Typsetting Event-B Code

The current supported syntax is from CamilleX. In particular, the Event-B mathematical symbols can be typeset using Unicode symbols. Alternatively, the mathematical symbols can be typeset using ASCII combinations (similar to the Event-B Summary, with the exception that the text combinations must be prefixed by ! (this is to prevent unintended translation of text in longer words). Some other symbols, e.g. . and ∣ also need to be !-prefixed.

2.3.1 Predicate-related Symbols

The following table shows the ASCII input for typesetting predicate-related symbols.

ASCII	Symbols	Explanation
!false	⊥	False
!true	⊤	True
&	∧	Conjunction
!or	∨	Disjunction
=>	⇒	Implication
<=>	⇔	Equivalence
!not	¬	Negation
!	∀	Universal qu
#	∃	Existential
!.	.	Quantificati
=	=	Equality
/=	≠	Inequality

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2.3.2 Set-related Symbols

The following table shows the ASCII input for typesetting set-related symbols.

ASCII	Symbols	Explanation
{}	∅	Empty set
|	|	Vertical bar
\/	∪	Union
/\	∩	Intersection
\	\	Set differen
|->	↦	Ordered pai
**	×	Cartesian pr
!POW	$\mathbb{P}$	Powerset
!POW1	$\mathbb{P}_1$	Non-empty
!card	card	Cardinality
!union	union	Generalised
!inter	inter	Generalised
!UNION	⋃	Quantified u
!INTER	⋂	Quantified i

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