

THE `syllogism` PACKAGE

release 1.2

(c) 2007–2008 NICOLAS VAUGHAN

Report bugs and submit questions to:
nivaca@gmail.com

Oct. 29, 2008

Contents

1	Introduction	1
2	Changelog	1
3	How to use it	2
3.1	<code>\syllog</code>	2
3.2	<code>\syllogC</code>	3
3.3	<code>\syllogTA</code>	3
3.4	<code>\syllogTAC</code>	4
4	Package options	4
5	Additional commands	5
5.1	Length-related commands	5
5.2	Text-related commands	5
6	Future features	5

1 Introduction

The `syllogism` package provides a simple way for neatly typesetting syllogisms and syllogistic-like arguments, composed of two premisses and a conclusion. It is fully configurable, allowing the user to tweak the various distances, line widths, and other options.

2 Changelog

v. 1.2 (25/10/2008) Changed the typesetting engine of `\syllog`.

Fixed a problem with `\syllogTAC`. (Thanks to Carlos Cortissoz for noticing this.)

v. 1.1 (02/06/2008) Added a syllogism counter (`\c:syl`) and two new commands, `\syllogC` and `\syllogTAC`.

3 How to use it

You must set `\usepackage[options]{syllogism}` before the `\begin{document}` command. The available options are described in section §4.

To install `syllogism`, just place it anywhere L^AT_EX can find it (e.g., `/texmf-local/tex/latex/syllogism`).

3.1 `\syllog`

The main command provided by the package is `\syllog`, whose syntax is:

```
\syllog[pre-text]{first premiss}{second premiss}{conclusion},
```

in which the optional parameter *pre-text* is the text typeset to the left of the syllogism; *first premiss*, *second premiss* and *conclusion* correspond respectively to the text of the first and second premisses and the conclusion.

For example, the following command

```
\syllog{Every man except Socrates is musician} %  
{Socrates is a man} %  
{Socrates is not a musician},
```

will produce this output:

```
Every man except Socrates is musician  
Socrates is a man.  
-----  
Socrates is not a musician    ∴
```

If you choose to use the optional parameter, as in:

```
\syllog[(S1)]{Every man except Socrates is musician} %  
{Socrates is a man} %  
{Socrates is not a musician},
```

you should get the following result:

```
(S1) Every man except Socrates is musician  
Socrates is a man.  
-----  
Socrates is not a musician    ∴
```

3.2 `\syllogC`

The package also provides the command `\syllogC` which includes an automatic numeration feature. The syntax for this command is similar to the previous one, but does not take the optional parameter.¹

```
\syllogC{first premiss}{second premiss}{conclusion},
```

For example, the following code

```
\syllogC{Every man except Socrates is musician} %  
{Socrates is a man} %  
{Socrates is not a musician},
```

will produce this output (provided that it has not been called elsewhere before):

$$\begin{array}{l} \text{Every man except Socrates is musician} \\ \text{(S1) } \text{Socrates is a man.} \\ \hline \text{Socrates is not a musician} \quad \therefore \end{array}$$

The counter associated with `\syllogC` is `\c:syl`, which may be reset or stepped with in the usual ways.

3.3 `\syllogTA`

The command `\syllogTA` works almost exactly as `\syllog`, the only difference being that it adds some text to the second premiss and the conclusion. Its syntax is:

```
\syllogTA[pre-text]{first premiss}{second premiss}{conclusion},
```

As for today, `syllogism` supports three languages for this task: English, Spanish and Latin. The default language is English. (The language may be changed through a package option, see §4 below). The added text for each language is shown in Table 1, below.

For example, the following code:

```
\syllogTA{Every man except Socrates is musician} %  
\{Socrates is a man} %  
\{Socrates is not a musician},
```

¹The label for `\syllogC` is defined internally through the following instruction: `\newcommand{\syl}{(S\arabic{c:syl})\xspace}`. It may be thus redefined as usual in L^AT_EX. For example, to remove the ‘S’ in the label, use the following: `\renewcommand{\syl}{(\arabic{c:syl})\xspace}`.

	SECOND PREMISS	CONCLUSION
ENGLISH	<i>but</i>	<i>Therefore</i>
SPANISH	<i>pero</i>	<i>Por lo tanto,</i>
LATIN1	<i>sed</i>	<i>Ergo</i>
LATIN1	<i>sed</i>	<i>Igitur</i>

Table 1: Language variants

will be typeset thus:

Every man except Socrates is musician;
but Socrates is a man.

Therefore Socrates is not a musician. ∴.

Please note that the text may be defined through several commands provided also by `sylogism` (see below §5.2).

3.4 `\sylogTAC`

The command `\sylogTAC`, which adds an automatic counter to `\sylogTA`.² Its syntax is:

```
\sylogTAC{first premiss}{second premiss}{conclusion},
```

4 Package options

The package options for `sylogism` are four, corresponding the language of the added text (used only with the commands `\sylogTA` and `\sylogTAC`):

`english`

`spanish`

`latin1`

`latin2`

The option `english` is the default one. As stated previously, the text content selected by these options may be changed by one or more of several commands provided in the package (see below §5.2).

²See note 1, above.

5 Additional commands

5.1 Length-related commands

`\setpresyl` Command for changing the horizontal space to the right of the syllogism (def=2em).

`\setsyllabel` Command for changing the horizontal space between the label and the syllogism (def=1em).

`\setsylrh` Command for changing the ‘width’ of the rule (def=.3pt).

`\setsylsepa` Command for changing the vertical space before the syllogism (def=\baselineskip).

`\setsylsepb` Command for changing the vertical space after the syllogism (def=\baselineskip).

`\setsylsep` Command for changing the vertical space *both* before *and* after the syllogism to the same value.

5.2 Text-related commands

These commands change the default text used with `\syllogTA` and `\syllogTAC`. The defaults are set by the package options (see above §4).

`\setsylsed` Command for changing the text that begins the second premiss.

`\setsylergo` Command for changing the text that begins the conclusion.

`\setsylpuncpa` Command for changing the punctuation after the first premiss (def=;).

`\setsylpuncpb` Command for changing the punctuation after the second premiss (def=.).

`\setsylpuncpc` Command for changing the punctuation after the conclusion (def=.).

`\setsylergosign` Command for changing the sign that goes after the conclusion text (def=:.).

6 Future features

Future features depend on user feedback and requests. However, support for more languages and automatic language selection (through `babel`) is envisaged.

Index

- additional commands, 5
 - `\setpresyl`, 5
 - `\setsylergo`, 5
 - `\setsylergosign`, 5
 - `\setsyllabel`, 5
 - `\setsylpuncc`, 5
 - `\setsylpuncca`, 5
 - `\setsylpuncpb`, 5
 - `\setsylrh`, 5
 - `\setsylsed`, 5
 - `\setsylsep`, 5
 - `\setsylsepa`, 5
 - `\setsylsepb`, 5
- automatic numeration, 3
 - redefining the label, 3
- main commands, 2
 - `\syllog`, 2
 - `\syllogC`, 3
 - `\syllogTA`, 3, 4
 - `\syllogTAC`, 4
- package options, 4
 - `\english`, 4
 - `\latin1`, 4
 - `\latin2`, 4
 - `\spanish`, 4