

Minimal example for the `knowledge` package

Abstract

This document provides an elementary example of the `knowledge package` for \LaTeX and can be used as a starting point for creating one's own document.

1 Introduction

The package `knowledge` is a package for \LaTeX that helps associating information to terms. This can be used for:

- managing external urls, for instance separating the file containing the addresses from their use,
- managing internal references's such as linking every use of a concept to the place of its introduction (in particular avoiding the use of labels),
- managing the index in a centralized way,
- replacing some macros for configuring the display.

Primarily, the goal of the `knowledge` is for the production of scientific documents (the longer, the more interesting, such as a thesis or a book) in order to improve their readability on electronic devices. Ultimately, the goal is to produce documents that are more semantic-aware. Some capabilities (link handling the index) are not related to this purpose in particular.

2 Example running

Try compiling this document (two compilation phases to have proper links) using `pdflatex`, and see how some notions are hyperlinked to their introduction point (some viewers make it more obvious than others by displaying a preview of the target of a link inside a document; since there is only one page in this example, this may be worth zooming in this case). When the `paper mode` is not active, links are clearly identified in blue. Try then compiling it in `paper mode` (an option of the `knowledge package`); it now looks like a regular paper (but the links are still there). In `electronic mode`, the links are still colored, but some other hints disappear like `anchor points`.

While writing a document, the two syntaxes `"text"` and `"text"` should be used each time some important concept is used or introduced respectively in the paper. For instance:

Define a `"group"` to be a `"monoid"` such that...

The `'@'` symbol allows some flexibility by having a displayed text different from the target:

`"This kind of algebras@solvable groups"`...

These concepts are referred to as *knowledges*. *Knowledges* are to be defined (in general in the preamble of the document) using a command of the form:

```
\knowledge{directives}
| name
| synonym1
| synonym2
| ...
```

However, using undefined *knowledges* will not cause compile time errors, but be displayed as in the following `'unknown knowledge'` (i.e. in non-*paper mode* in brown, but in regular black in *paper mode* or *electronic mode*). The *diagnose file* (that ends with a `.diagnose` extension) contains detailed information about these warnings, and should be read often when finalizing the document.

Small red corners called *anchor points* are visible in the margin, and represent the precise location in a pdf document where an internal link jumps. These are introduced using the `\AP` command, commonly at the beginning of each paragraph that introduce some concept, or even in the middle of the paragraph. The *anchor points* become invisible in *paper* or *electronic mode*.