LaTeX class for AKA book series

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Abstract

The package provides a class for typesetting books to be published with AKA books series.

Contents

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1 Introduction

The document class is built on `book.cls` class and requires the following packages:

- `mathptmx`
- `graphicx`
- `index`
- `multicol`

2 Installation

The latest version of the package can be found on GitHub: https://github.com/vtex-soft/texsupport.aka.

A bug report can be filed at https://github.com/vtex-soft/texsupport.aka/issues.

Most users should not attempt to install this package themselves, and rather rely on their TEX distributions to provide it. If you decide to install the package yourself, follow the standard rules:

1. Put the file `akabook.cls` to the places where LATEX can find them (see [1] or the documentation for your TEX system).
2. Update the database of file names. Again, see [1] or the documentation for your TEX system for the system-specific details.

The installation is optional and you can skip this phase. The bundle is self-contained and after unzipping your have everything you need for a book preparation.

3 Book structure

Put each chapter of a book in separate files and load them in appropriate places of main file. These places are marked with commands `\frontmatter`, `\mainmatter` and `\backmatter`.

Place image files into `img/` subfolder. The LATEX class file resides in a dedicated `sty/` folder.

4 Usage

The class should be loaded with the following command:

```
\documentclass[<options>]{akabook}
```

Options are available same as for `book` class.

5 Single chapter

Start every chapter in a new `tex` file and include it in your main file with `\include{}`. A typical chapter coding is shown below:

```
\chapter{Chapter Title\footnote{This is chapter footnote}}%
\section{...}
...
\subsection{...}
```

```
...
\section{..}
...
```

6 Section headings

There are four section head levels defined. Coding for different heading levels are shown below:

```
\section{Head Level 1}
\subsection{Head Level 2}
\subsubsection{Head Level 3}
\paragraph{Head Level 4}
```

7 Lists

The `akabook.cls` uses standard LaTeX list environments `itemize` and `enumerate`.

```
\begin{itemize}
\item ...
\item ...
\end{itemize}
\begin{enumerate}
\item ...
\item ...
\end{enumerate}
```

8 Tables and figures

Figures may be included using the command `\includegraphics`. Use EPS file format for figures working with LaTeX, and PDF, PNG, MPS file formats for pdfLaTeX. Do not use file extensions and path in order to load file. Figure mark up is as follows:

```
\begin{figure}
\includegraphics{file-name}% no path, no extension
\caption{Figure caption}\label{fig:f01}
\end{figure}
```

Table environment may be enhanced depending on the model chosen.

```
\begin{table}
\caption{Table caption}
\label{tab:1}       % Give a unique label
\begin{tabular}{lll}
\hline
first & second & third  \\
\hline
number & number & number \\
number & number & number \\
\hline
```

```
\end{tabular}
\end{table}
```

9 Theorems and alike environments

It is recomended to use `amsthm` package [4] to make it easier to define theorem environments and the alike.

```
\usepackage{amsthm}
\newtheorem{theorem}{Theorem}
\theoremstyle{definition}
\newtheorem{definition}{Definition}
\theoremstyle{remark}
\newtheorem{remark}{Remark}
\begin{theorem}[Optional title]\label{thm:01}
...
\end{theorem}
```

10 Display mathematics

AMS math coding is preferred for display mathematics [3]. Avoid `eqnarray` environment for coding.

11 Cross-references

Cross-referencing is possible in LaTeX for section headings, formulae, figure, tables, literature references, etc. For example, the words 'Fig. 1' will never be more than simple text, whereas the proper cross-reference `Fig.~\ref{fig:tiger}` may be turned into a hyperlink to the figure. In the same way, the words 'Ref. [1]' will fail to turn into a hyperlink; the proper cross-reference is `\cite{Knuth96}`.

12 Bibliography

For bibliography citation management it is recomended to use `natbib`, which is the most commonly used package for handling references in LaTeX. You can choose between author–year (default) and numerical (option `numbers`) citations. Further customization can be made via `\setcitestyle` macro (see [6]) for details.

13 Index

Index is an alphabetical list of words and expressions with the pages of the book upon which they are to be found. LaTeX supports the creation of indices with its package `index` (loaded automatically in `akabook`) [7], and its support program `makeindex`, called on some systems `makeidx`.

14 Appendices

An appendix, in a book, is a collection of extra or supplementary material generally used in books and academic writing and appears at the end of a book.

References

[1] UK TEX Users Group. UK list of TEX frequently asked questions. http://www.tex.ac.uk, 2016.

[2] M. Daniel, E. Schubert. *The mdframed package*, 2013. http://www.ctan.org/pkg/mdframed.

[3] F. Mittelbach, R. Schöpf, M. Downes, D.M. Jones, D. Carlisle. *AMS mathematical facilities for LATEX*, 216. http://www.ctan.org/pkg/amsmath.

[4] American Mathematical Society. *Typesetting theorems (AMS style)*, April 2015. http://www.ctan.org/pkg/amsthm.

[5] J. Bezos. *Customizing lists with the enumitem package*, 2011. http://www.ctan.org/pkg/enumitem.

[6] P.W. Daly. *Natural Sciences Citations and References*, 2010. https://www.ctan.org/pkg/natbib.

[7] D. M. Jones. *index Extended index for LaTeX including multiple indexes*, 2004. https://www.ctan.org/pkg/index.