LaTeX Class for Elsevier Books

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Abstract

The package provides a class for typesetting books to be published by Elsevier.

Contents

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1 Introduction

The elsevierbook class is designed for preparation LaTeX books to be published by Elsevier. The document class is built on book.cls class and requires following packages:

- etoolbox
- calc
- afterpackage
- numname
- xcolor
- colortbl
- fontenc
- textcomp
- amsmath
- amssymb,amsfonts
- amsthm
- caption
- titlesec
- enumitem
- mdframed
- footmisc
- natbib
- minitoc
- multicol

2 Installation

The latest released version of the package can be found on CTAN: http://www.ctan.org/pkg/elsevierbook/. The development version can be found on GitHub: https://github.com/vtex-soft/texsupport.elsevier-book. A bug report can be filed at GitHub repository.

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. Run latex on elsevierbook.ins. This will produce the file elsevierbook.cls.
2. Put the file elsevierbook.cls to the places where LaTeX can find them (see [1] or the documentation for your TeX system).
3. 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

Book structure may vary depending on whether the book is a monograph or a contributed book. Monographs and short books can be organized in simple folder structure as shown in Figure 1. Each chapter is prepared in a separate file and the files reside in working directory. Image files are put in a separate img/ folder. The LaTeX style files have a dedicated sty/ folder.

More complex books such as proceeding volumes or contributed books can have more elaborated file structure as shown in Figure 2.

4 Usage

The class should be loaded with the following command:

```
book.tex
chapter01.tex
chapter02.tex
appendix01.tex
dedication.tex
preface.tex
bibliography.tex
tableofcontents.tex
[...]
img/
  ch01-figure01.eps
  ch02-figure02.eps
sty/
  elsevierbook.cls
```

book.tex

```
\csdef{input@path}%
{%
 {sty/},% path for class/sty files
 {img/},% path for graphics files
}
...
\documentclass{elsevierbook.cls}
\begin{document}
\Frontmatter
  \include{titlepage}
  \include{dedication}
  \include{tableofcontents}
  \include{preface}
  \include{acknowledgement}
  [...]
\Mainmatter
  \include{chapter01}
  \include{chapter02}
  [...]
  \appendix
  \include{appendix01}
  [...]
\Backmatter
  \include{bibliograhy}
\end{document}
```

Figure 1: Folder structure for monographs: folder/file structure (*left*) and contents of the `book.tex` file (*right*).

```
book.tex
dedication.tex
preface.tex
bibliography.tex
tableofcontents.tex
[...]
chapter01/
  chapter01.tex
  img/
    ch01-figure01.eps
    ch02-figure02.eps
    [...]
chapter02/
  chapter02.tex
  img/
    ch02-figure01.eps
    ch02-figure02.eps
    [...]
[...]
appendix01/
  appendix01.tex
  img/
    appendix01-figure01.eps
    appendix01-figure02.eps
bibliography.tex
sty/
  elsevierbook.cls
```

book.tex

```
\csdef{input@path}%
{%
 {sty/},% path for class/sty files
 {chapter01/},%
 {chapter01/img/},%
 {chapter02/},%
 {chapter02/img/},%
 {...},%
 {appendix01/},%
 {appendix01/img/},%
}
...
\documentclass{elsevierbook.cls}
\begin{document}
\Frontmatter
  \include{titlepage}
  \include{dedication}
  \include{tableofcontents}
  \include{preface}
  \include{acknowledgement}
  [...]
\Mainmatter
  \include{chapter01}
  \include{chapter02}
  [...]
  \appendix
  \include{appendix01}
  [...]
\Backmatter
  \include{bibliograhy}
\end{document}
```

Figure 2: Folder structure for contributed books: folder/file structure (*left*) and contents of the `book.tex` file (*right*).

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

where the `options` can be following:

a02	sets `a02` book model settings
a08a	sets `a08a` book model settings
p05	sets `p05` book model settings

5 Chapter opener

All the chapter opening elements are coded inside in a wrapper environment `\begin{frontmatter}...\end{frontmatter}`. A typical chapter opener coding is shown below:

```
\begin{frontmatter}
\chapter{Chapter Title\footnote{This is chapter footnote}}%
\subchapter{Chapter Subtitle}
\begin{aug}
\author[addressrefs={ad1,ad2}]%
  {%
    \fnm{Firstname} \snm{Surname}%
    \footnote{This is author footnote}%
  }%
\author[addressrefs={ad2}]%
 {%
   \fnm{Firstname} \snm{Surname}%
 }%
\address[id=ad1]%
  {%
    Name of Institute,
    Division of Department,
    Address of Institute
  }%
\address[id=ad2]%
  {%
    Name of Institute,
    Division of Department,
    Address of Institute
  }%
\end{aug}
```

The frontmatter part can have more environments such as abstracts, keywords, chapers points and quotes. These can be marked up in the following manner:

```
\begin{abstract}
  The ends of words and sentences are marked by spaces. It does not
  matter how many spaces you type; one is as good as 100.  The end of
  a line counts as a space.%

  The ends of words and sentences are marked by spaces. It does not
  matter how many spaces you type; one is as good as 100.  The end of
```

```
  a line counts as a space.%
\end{abstract}

\begin{keywords}
  \kwd{key one}
  \kwd{key two}
  \kwd{key three}
\end{keywords}

\begin{chapterpoints}%[Chapter Points]
\item The ends of words and sentences are marked by spaces. It does not
  matter how many spaces you type; one is as good as 100.  The end of
  a line counts as a space.

\item The ends of words and sentences are marked by spaces. It does not
  matter how many spaces you type; one is as good as 100.  The end of
  a line counts as a space.
\end{chapterpoints}

\begin{dispquote}
  The ends of words and sentences are marked by spaces. It does not
  matter how many spaces you type; one is as good as 100.  The end of
  a line counts as a space.

  The ends of words and sentences are marked by spaces. It does not
  matter how many spaces you type; one is as good as 100.  The end of
  a line counts as a space.
  \source{Name}
\end{dispquote}
```

6 Section headings

There are six 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}
\subparagraph{Head Level 5}
\subsubparagraph{Head Level 6}
```

7 Lists

The `elsevierbook.cls` class exploits `enumitem` package for list environments such as enumerate, itemize and others. It is possible to supply optional arguments to fine control the appearance of list (see package documentation for details [5]):

```
\begin{enumerate}[<options>]
\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 \source{Cortesy of [...]}}\label{fig:f01}
\end{figure}
```

Table environment may be enhanced depending on the model chosen.

```
\begin{table}
\begin{tableframe}% frame or background - depends on the model.
\caption{Table caption text [...]  }\label{tbl:t01}
\begin{tabularx}{\textwidth}{X||X}
\tophline
\tch{Item A} & \tch{Item B}\tabnoteref{tn1}\\\hline     % \tch - table column head
\tchi{Item A2} & \tchi{Item B2}\tabnoteref{tn1}\\\hline % \tchi - table column subhead
\rowcolor{thd} \multicolumn{2}{l}{\textbf{Item}} \\     % colored header
Item A & Item B\\\hline
Item C & Item D\tabnoteref{tn2}\\
\bottomhline
\end{tabularx}
\begin{tabnotes}
  \tabnotetext[*]{tn1}{Table footnote}
  \tabnotetext[a]{tn2}{Table footnote}
  \legend{EL=empirical likelihook.}
  \source{foo}
\end{tabnotes}
\end{tableframe}
\end{table}
```

9 Theorems and alike environments

The class loads `amsthm` package [4] to make it easier to define theorem environments and the alike.

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

10 Boxed text

The `mdframed` package [2] is used for boxed text. There are two types of boxed text defined: Box Type A (BtypeA) and Box Type B (BtypeB). The mark up for unnumbered boxed text is as following:

```
\begin{textbox}[style=BtypeA,frametitle={Box type A}]
 Some text [...]
\end{textbox}
[...]
\begin{textbox}[style=BtypeB,frametitle={Box type B}]
 Some text [...]
\end{textbox}
```

Numbered boxed text environments are defined the same ways as theorem-like environments:

```
\mdtheorem[style=BtypeA]{example}{Example}[chapter]
\mdtheorem[style=BtypeB]{boxb}{Box}
\begin{example}[Numbered Box type A]
  Some text [..]
\end{example}
[...]
\begin{boxb}[Numbered Box type B]
  Some text [..]
\end{boxb}
```

11 Display mathematics

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

12 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}`.

13 Bibliography

The class uses the `natbib` package for formatting references. You can choose between author–year (default) and numerical (option `numbers`) citations. Further customization can be made via `\setcitestyle` macro (see [6]) for details.

14 Submission

Submit one single file as a zip archive. Pack your root folder `<your-project-name>` with files and subfolders. Check that subfolders `sty/`, `img/`, or `chapterNN/` (if any) are present in a zip file.

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.