LaTeX Class for Elsevier Books

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Abstract

The package provides a class for typesetting books to by 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 and require 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 [?] or the documentation for your TeX system).
3. Update the database of file names. Again, see [?] 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.

```
book.tex
chapter01.tex
chapter02.tex
dediction.tex
preface.tex
bibliography.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}
  \tableofcontents
  \include{preface}
  \include{acknowledgement}
  [...]
\Mainmatter
  \include{chapter01}
  \include{chapter02}
  [...]
\Backmatter
  \include{appendix01}
  [...]
  \include{bibliograhy}
  \printindex
\end{document}
```

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

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:

```
\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

```
book.tex
dediction.tex
preface.tex
bibliography.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}
  \tableofcontents
  \include{preface}
  \include{acknowledgement}
  [...]
\Mainmatter
  \include{chapter01}
  \include{chapter02}
  [...]
\Backmatter
  \include{appendix01}
  [...]
  \include{bibliograhy}
  \printindex
\end{document}
```

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

5 Chapter Opener

All the chapter opening elements are coded inside in a wrapper `\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 doesn't
  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 doesn't
  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 doesn't
  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 doesn't
  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

`elsevierbook.cls` 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):

```
\begin{enumerate}[<options>]
\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 model chosen.

```
\begin{table}
\begin{tableframe}% tableframe - depends on the model.
\caption{Table caption text [...]  }%
\begin{tabularx}{\textwidth}{X||X}
\topline %
\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}                                          % header color
\multicolumn{2}{l}{\textbf{Item}} \\
Item A & Item B\\\hline
Item C & Item D\tabnoteref{tn2}\\
\bottomline %
\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 Boxed text

The `mdframed` package 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 environment 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}
```

10 Theorems and alike environments

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

```
\newtheorem{theorem}{Theorem}
\theoremstyle{definition}
\newtheorem{definition}{Definition}
\theoremstyle{remark}
\newtheorem{remark}{Remark}
```

11 Display mathematics

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

12 Bibliography

13 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 then 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}`.

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17 Glossary List

18 Book Frontmatter

19 Submission