

# L<sup>A</sup>T<sub>E</sub>X Style For *No Starch Press* \*

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## Abstract

This package provides class for typesetting books for No Starch Press,  
<http://www.nostarch.com>

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# 1 Introduction

This is the “official” L<sup>A</sup>T<sub>E</sub>X style for *No Starch Press*, <http://www.nostarch.com>. The class is intended to typeset books for this publisher—both hard copies and electronic books.

The suite provides main class, `nostarch.cls`, hyperref interface `nshyper.sty` and MakeIndex style `nostarch.ist`.

## 2 User’s Guide

### 2.1 Installation

The installation of the class follows the usual practice [1] for L<sup>A</sup>T<sub>E</sub>X packages:

1. Run `latex` on `nostarch.ins`. This will produce the following files: L<sup>A</sup>T<sub>E</sub>X class `nostarch.cls`, L<sup>A</sup>T<sub>E</sub>X style `nshyper.sty` and MakeIndex style `nostarch.ist`.
2. Put the files `nostarch.cls`, `nshyper.sty` and `nostarch.ist` to the places where L<sup>A</sup>T<sub>E</sub>X and MakeIndex can find them (see [1] or the documentation for your T<sub>E</sub>X system).
3. Update the database of file names. Again, see [1] or the documentation for your T<sub>E</sub>X system for the system-specific details.
4. The file `nostarch.pdf` provides the documentation for the package (this is the file you are probably reading now).

As an alternative to items 2 and 3 you can just put the files in the working directory where your `.tex` file is.

To typeset the books in the distinctive *No Starch Press* style you will need the fonts used by them. Unfortunately these fonts (New Baskerville, Futura, The Sans Mono Condensed and Dogma) are not free. You may buy them from the vendor or license from the publisher to typeset your book. Please contact *No Starch Press* directly for the arrangements.

The class uses some other L<sup>A</sup>T<sub>E</sub>X classes or packages. Most probably, some of them they are already installed on your system. If not (or if their versions are very old), you need to download and install them. Here is the list:

1. Font support packages `nbaskerv` [2], `futurans` [3], `dogma` [4] and `thsmc` [5].
2. `ifpdf` package [6].
3. `fancyhdr` package [7].
4. `booktabs` package [8].
5. `graphics` package [9].
6. `caption` package [10].

7. `fancyvrb` package [11].

8. `ragged2e` package [12].

These packages are called internally by `nostarch.cls`; you do not need to explicitly call them from your document.

## 2.2 Invocation

To use the class, put in the preamble of your document

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

*options* As discussed above, *No Starch Press* uses a number of commercial fonts to typeset their books. The option `cfonts` (default) tells L<sup>A</sup>T<sub>E</sub>X that you do have these commercial fonts. On the other hand, the option `nocfonts` instructs L<sup>A</sup>T<sub>E</sub>X to use freely available fonts for typesetting. Of course in this case the result will not look like a *No Starch Press* Book.

*options* The fontsize changing options (`8pt`, `9pt`, ..., `12pt`) have no effect other than producing a warning in the log.

`8pt` *No Starch Press* uses a special paper size. If you process the manuscript with `pdflatex` to produce PDF output, the paper dimensions will be automatically set up by the class. However, if you use `latex` and `dvips`, you need to tell `dvips` what paper size to choose. One way to do this is to add to the `dvips` options the following:

```
-T 7in,9.25in
```

## 2.3 Use of hyperref Package

The books typeset by *No Starch Press* can be sold either as traditional printed and bound hard copies, or as PDF files. If you, the author, envisage the second possibility, you may want additional possibilities provided by `hyperref` package [13], like “clickable” entries in the table of context and index, etc. The provided package `nshyper.sty` adds the functionality of `hyperref` to the class. This package is highly recommended for the books that are going to be distributed in an electronic form.

To use the package, just add the line `\usepackage{nshyper}` to your preamble. This package should be loaded last since it redefines internals of many other packages. Note that a direct call of `hyperref` by `\usepackage{hyperref}` will not work since `nshyper` patches `hyperref` to work with our class.

## 2.4 Front Matter

`\frontmatter` A book can be divided into three parts: front matter, main matter and back matter. Front matter starts with the command `\frontmatter`. Normally this is the first command in the class. Front matter contains half page, title page, copyright page, brief contents, detailed contents, foreword(s) and other stuff which is traditionally typeset on roman-numbered pages. The commands in main matter can

be divides into *declarations* and *directives*. Declarations do not typeset anything. Rather, they up parameters for the typesetting. Directives use them to typeset the stuff.

### 2.4.1 Front Matter Declarations

<code>\title</code>	There are five declarations defined by <code>nostarch.cls</code> : <code>\title</code> , <code>\subtitle</code> , <code>\author</code> , <code>\nostarchlogo</code> and <code>\nostarchlocation</code> . The macro <code>\title</code> , like the standard L <sup>A</sup> T <sub>E</sub> X <code>\title</code> , sets the title of the book, for example <code>\title{The book about everything}</code> .
<code>\subtitle</code>	The macro <code>\subtitle</code> takes one argument and sets up the subtitle of your book, for example <code>\subtitle{A Guide For Perplexed}</code> .
<code>\author</code>	The command <code>\author</code> has just one argument, which is the list of authors, separated by commas and (for the last author) the word “and”. Do not use the command <code>\and</code> defined in the standard L <sup>A</sup> T <sub>E</sub> X. For example, <code>\author{Ralph Alpher, Hans Bethe and George Gamow}</code> .
<code>\nostarchlogo</code>	Due to copyright reasons the logo of <i>No Starch Press</i> is not distributed with the package. You should get the logo as a graphics file from the publishers and put in the directory where L <sup>A</sup> T <sub>E</sub> X can find it (for example, the directory with the other sources of your book). The command <code>\nostarchlogo</code> has one argument: the name of the file, for example, <code>\nostarchlogo{biglogo.pdf}</code> . The file will be automatically scaled to the proper size.
<code>\nostarchlocation</code>	<i>No Starch Press</i> books are usually published in San Francisco. If you need to change this setting, use <code>\nostarchlocation</code> declaration, for example, <code>\nostarchlocation{San Francisco; London; Tokyo}</code> .

### 2.4.2 Front Matter Directives

<code>\makehalftitle</code>	The command <code>\makehalftitle</code> creates <i>half title page</i> . This is normally the first page of the book.
<code>\maketitle</code>	The command <code>\maketitle</code> creates <i>title page</i> . It uses logo and full title of the book.
<code>copyrightpage</code>	The copyright page is the <i>verso</i> of the title page. It has information about copyright, edition history, the credits of the people who helped you to make the book, CIP information, etc. The exact contents of the copyright page differ from book to book. Therefore the class does not try to create this page automatically, and rather sets up the typographic style for arbitrary contents. For this purpose the environment <code>copyrightpage</code> is used. So just put the information provided by the publisher between <code>\begin{copyrightpage}</code> and <code>\end{copyrightpage}</code> . Use <code>\textbf{\sffamily title}</code> for the title of the book on the copyright line.
<code>cipblock</code>	One of important parts of the copyright page is <i>CIP block</i> . It contains catalogue data for your book (CIP means Cataloguing in Publication, by the way). Again, the contents of this field will be provided by the publishers; you just need to put them inside <code>cipblock</code> environment, i.e. between <code>\begin{cipblock}</code> and <code>\end{cipblock}</code> . To make your life easier, this block is typeset verbatim, so line ends and spaces are typeset as is.

`dedicationpage` Dedications, if any, are included in the special dedication page, for which a special environment `dedicationpage` is provided.

`\briefftableofcontents` The standard  $\text{\LaTeX}$  provides just one table of contents. This class uses two  
`\tableofcontents` tables: brief contents and contents in detail. They are correspondingly typeset by the commands `\briefftableofcontents` and `\tableofcontents`.

Forewords and similar front matter materials are unnumbered chapters:  
`\chapter*[Foreword by R. E.~Viewer]{Foreword}`.

Front matter with its formal parts like copyright page, CIP information, etc., can be daunting, especially for novice authors. Feel free to use the sample enclosed and ask the publisher for advice.

## 2.5 Main Matter

`\mainmatter` The command `\mainmatter` finishes the front matter and starts the main matter of the book. The main matter is divided into chapters, sections, subsections, etc. They are discussed below.

### 2.5.1 Parts, Chapters and Sections

`\chapter` *No Starch Press* books have chapters, sections, subsections and subsubsections.  
`\section` The chapters are usually numbered, but sections and below are not. The  
`\subsection` commands for them are the same as in the standard  $\text{\LaTeX}$ : `\chapter[short`  
`\subsubsection` `title][long title]`, `\section[short title][long title]`, etc. For example:

```
\section[Building Lego Fire Track]{How To Build A Lego Fire Track
And Why It Is Fun}
```

The “starred” forms `\chapter*`, `\section*` etc. are used when the corresponding division has no number (like unnumbered chapters in the front matter). Since our sections, subsections and subsubsections are unnumbered anyway, this form has meaning only for chapters (but can be used for other divisions as well).

`\chapterart` *No Starch Press* books use “circular art” for chapter openings (except for  
`\chapterartfile` unnumbered chapters in the front matter). The command `\chapterart` should be issued immediately after `\chapter` command and before the first paragraph. Its argument is the artwork used for the current chapter: `\chapterart{ $\text{\LaTeX}$  commands}`. In the simplest case it is just inclusion of an external graphics file, for example:

```
\chapterart{\includegraphics[width=1.264in]{firetrack.jpg}}
```

Actually, this simplest case is so ubiquitous, that there is a special command `\chapterartfile{filename}` for it, so the previous example can be simplified as

```
\chapterartfile{firetrack.jpg}
```

However, you can use instead any L<sup>A</sup>T<sub>E</sub>X commands to produce the artwork. Remember that it must be 1.264" × 1.222".

The first paragraph after chapter start is typeset in larger size font than the body font. If this paragraph is too long, you may need to manually change the font size back in the middle of it. The simplest way to do this is the combination `\par\noindent\normalfont` in a strategic place.

`\part` Sometimes larger books are separated into parts. The command `\part{<Title>}` is used to typeset parts.

## 2.5.2 Environments

`itemize` The class offers standard `itemize`, `enumerate` and `description` environment.  
`enumerate` There is an environment specific for it: `note`. It is intended for “asides”:  
`description`  
`note` `\begin{note}`  
Do not forget to plug off the computer before doing any  
modifications!  
`\end{note}`

The material in a `note` will be typeset in italics with bold “NOTE” on the margin.

## 2.5.3 Tables and Figures

There are several things to keep in mind when using tables and figures with the class.

The tables and figures are not centered. Neither are their captions. The captions for figures go *below* the figures, the captions for tables go *above* the tabular data.

If a caption for a table or figure turns out to be wider than the body, you might want to split the caption into lines. Remember, however, that the mandatory argument to `\caption` becomes “robust” in the L<sup>A</sup>T<sub>E</sub>X parlance [14] only when there is the optional one. Therefore the correct way to split a caption is the following:

```
\caption[A Long Caption With Lines To Split]{%
  A Long Caption\\ With Lines To Split}
```

Typesetting tables, unfortunately, is rarely done right, and standard L<sup>A</sup>T<sub>E</sub>X is not an exception. The authors are urged to read the introduction to `booktabs` package [8]. To summarize,

1. Never ever use vertical rules.
2. Never ever use double rules.
3. Use only `\toprule`, `\midrule` and `\bottomrule` for tables.

`\tbfont` *No Starch Press* uses special fonts for table body and table header. Since there are too many tabular-like environments (`\tabular`, `\tabbing`, `\longtable`, ...) we do not redefine them switch on these fonts automatically, but rather provide two font switching commands. The command `\tbfont` should be used *before* tabular environment, and the command `\thfont` should be used in all header cells. Also, usually the table entries are flushed left, so you might want to put `@{}` before the first column declaration in `\begin{tabular}` to suppress the padding on the left. Here is an example of a properly done table layout:

```
\begin{table}
  \caption{Starch Content of Foods}
  \label{tab:starch}
  \tbfont
  \begin{tabular}{@{}lr}
    \toprule
    \thfont Product           & \thfont Starch Content, \% \\
    \midrule
    Bran (wheat)             & 23.0\\
    Brown rice (raw)         & 80.0\\
    Brown bread (average)    & 41.3\\
    White bread (average)    & 46.7\\
    \bottomrule
  \end{tabular}
\end{table}
```

## 2.5.4 Code Fragments

`Code` The class uses `fancyvrb` package [11]. Long code fragments should be separated by rules; the class defines verbatim-like `Code` environment, which does exactly this:

```
\begin{Code}
main() {
    printf("Hello, World\n");
}
\end{Code}
```

See the documentation of [11] about many features of this package.

## 2.6 Back Matter

`\backmatter` Back matter includes bibliography, index, update page, colophon and other material. It starts with the command `\backmatter`.

### 2.6.1 Bibliography

*No Starch Press* at present has no special style for bibliography, so the authors have a relative freedom to choose one. However, it would be a good idea to use the `natbib` package [15]. This class should work with `natbib`.



No support for per chapter bibliography lists is provided by the package.

### 2.6.2 Index

The books published by *No Starch Press* usually have index. This package provides special style file `nostarch.ist` for index formatting.

`\makeindex`  
`\printindex`

To create index:

1. Put in the preamble of your document the command `\makeindex`.
2. In the body of your document use `\index` commands as described in [14].
3. Put in the Back Matter the command `\printindex` at the place you want the index to be printed.
4. After a `latex` run `makeindex` with the style `nostarch.ist`. In a Unix system the corresponding command is

```
makeindex -s nostarch.ist mydocument
```

or, in a more verbose way

```
makeindex -s nostarch.ist -o mydocument.ind mydocument.idx
```

(here we assume that your main file is `mydocument.tex`).

Refer to the documentation of your `TEX` system for the way to run `makeindex` on your computer.

### 2.6.3 Updates and Colophon

`\updatespage` *No Starch Press* books usually have updates page, which lists the Web address for updates, errata, etc. The command `\updatespage` starts such page. You are free to choose any text there. Note that if you use the package `nshypher` 2.3, then the command `\url{URL}` becomes a hyperlink in the electronic edition.

`\colophon` The last part of Back Matter is usually a *colophon* which describes how the book was printed and typeset. The command `\colophon` starts this part and prints some standard information about your fonts and `LATEX` package. You may want to add some information after this command.

## 3 Implementation

### 3.1 Identification

We start with the declaration who we are. Most `.dtx` files put driver code in a separate driver file `.drv`. We roll this code into the main file, and use the pseudo-guard `<gobble>` for it.

```
1 <class>\NeedsTeXFormat{LaTeX2e}
2 <*gobble>
3 \ProvidesFile{nostarch.dtx}
4 </gobble>
5 <class>\ProvidesClass{nostarch}
6 <nshyper>\ProvidesPackage{nshyper}
7 <*list>
8 [2008/04/07 v1.0 Typesetting books for No Starch Press]
9 </list>
```

And the driver code:

```
10 <*gobble>
11 \documentclass{ltxdoc}
12 \usepackage{array}
13 \usepackage{url,amsfonts}
14 \usepackage[breaklinks,colorlinks,linkcolor=black,citecolor=black,
15             pagecolor=black,urlcolor=black,hyperindex=false]{hyperref}
16 \PageIndex
17 \CodelineIndex
18 \RecordChanges
19 \EnableCrossrefs
20 \begin{document}
21   \DocInput{nostarch.dtx}
22 \end{document}
23 </gobble>
24 <*class>
```

### 3.2 Options

First, let us decide whether we have non-free fonts:

```
25 \newif\ifnostarch@cfonts
26 \nostarch@cfontstrue
27 \DeclareOption{cfonts}{\nostarch@cfontstrue}
28 \DeclareOption{nocfontsf}{\nostarch@cfontsfalse}
```

The size-changing options produce a warning:

```
29 \long\def\nostarch@size@warning#1{%
30   \ClassWarning{nostarch}{Size-changing option #1 will not be
31     honored}}%
32 \DeclareOption{8pt}{\nostarch@size@warning{\CurrentOption}}%
33 \DeclareOption{9pt}{\nostarch@size@warning{\CurrentOption}}%
34 \DeclareOption{10pt}{\nostarch@size@warning{\CurrentOption}}%
35 \DeclareOption{11pt}{\nostarch@size@warning{\CurrentOption}}%
```

```

36 \DeclareOption{12pt}{\nostarch@size@warning{\CurrentOption}}%
    All other options are passed to book:
37 \DeclareOption*{\PassOptionsToClass{\CurrentOption}{book}}
    Now we read the configuration file
38 \InputIfFileExists{nostarch.cfg}{%
39   \ClassInfo{nostarch}{%
40     Loading configuration file nostarch.cfg}{%
41     \ClassInfo{nostarch}{%
42       Configuration file nostarch.cfg is not found}}
And process the options:
43 \ProcessOptions\relax

```

### 3.3 Loading Class and Packages

We start with the base class

```

44 \LoadClass[10pt]{book}
    A bunch of packages:
45 \RequirePackage{ifpdf, fancyhdr, fancyvrb, booktabs, graphicx,
46   caption, makeidx}

```

We do not want the option document with ragged2e: this calls footmisc, while we want our own footnotes:

```

47 \RequirePackage{ragged2e}
48 \setlength\RaggedRightParindent{\parindent}
49 \RaggedRight

```

```

\@nschapterpreamble This is the preamble to bibliography and index commands used when nshyper is
loaded. Normally it is empty.
50 \def\@nschapterpreamble{}

```

### 3.4 Fonts

If we have commercial fonts, we load them. Note that the body text has roman font at 10pt, and typewriter at 8.5pt. Therefore we will load `thsmc` scaled. We also add `dgdefault` for dogma family

```

51 \ifnostarch@cfonts
52   \RequirePackage{nbaskerv}%
53   \RequirePackage{futura}%
54   \RequirePackage[scaled=0.85]{thsmc}%
55   \RequirePackage{dogma}%
56   \newcommand{\dgdefault}{fdg}%

```

Otherwise we just use sans serif font for dogma.

```

57 \else
58   \newcommand{\dgdefault}{\sfdefault}%
59 \fi

```

And switch to normal size—just in case

```

60 \normalsize

```

### 3.5 Page Dimensions and Paragraphing

`\paperheight` The trim size:  
`\paperwidth` 61 `\setlength{\paperheight}{9.25in}`  
62 `\setlength{\paperwidth}{7in}`

`\pdfpaperheight` If we deal with pdf<sub>tex</sub>, we can use this information more creatively. This was  
`\pdfpaperwidth` inspired by memoir [16].  
`\pdfvorigin` 63 `\ifpdf\relax`  
`\pdfhorigin` 64 `\pdfpageheight=\paperheight`  
65 `\pdfpagewidth=\paperwidth`  
66 `\pdfvorigin=1in`  
67 `\pdfhorigin=1in`  
68 `\fi`

`\topmargin` The top margin is 0.625". We use fake headers of 12pt:  
69 `\setlength\topmargin{0.625in}`  
70 `\addtolength\topmargin{-1in}`  
71 `\addtolength\topmargin{-12pt}`

`\textheight` This is the height of the text including footnotes, but excluding running head and  
foot.  
72 `\setlength\textheight{8in}`  
73 `\addtolength{\textheight}{-0.14in}`  
Now we take care of the first line height:  
74 `\addtolength\textheight{\topskip}`

`\evensidemargin` The margins on even and odd pages are 0.687" + 0.833" (margin par width) +  
`\oddsidemargin` 0.167" (margin par gap):  
75 `\setlength\evensidemargin{0.687in}`  
76 `\addtolength{\evensidemargin}{-1in}`  
77 `\addtolength{\evensidemargin}{0.833in}`  
78 `\addtolength{\evensidemargin}{0.167in}`  
79 `\setlength\oddsidemargin{\evensidemargin}`

`\textwidth` The type area is 5.625", but this includes side gap:  
80 `\setlength\textwidth{5.625in}`  
81 `\addtolength\textwidth{-0.833in}`  
82 `\addtolength\textwidth{-0.167in}`

`\parindent` The paragraph indentation is 0.25":  
83 `\setlength\parindent{0.25in}`

`\headheight` We do not have headers in these books. Fancyhdr sets `headheight` to 12pt, so we  
`\headsep` compensate it above in `\topmargin`  
84 `\setlength\headheight{12pt}`  
85 `\setlength\headsep{0pt}`

`\footskip` The footer is 8.792" from top

```

86 \setlength{\footskip}{9in}
87 \addtolength{\footskip}{-\textheight}
88 \addtolength{\footskip}{0.067in}
89 \addtolength{\footskip}{\baselineskip}
90 \addtolength{\footskip}{-1in}

```

`\widowpenalty` We forbid widows and clubs. To prevent too extended pages we use `\raggedbottom`:

`\clubpenalty`

```

91 \widowpenalty=10000
92 \clubpenalty=10000
93 \raggedbottom

```

### 3.6 Headers and Footers

`\headrulewidth` We do not want decorative rules:

`\footrulewidth`

```

94 \renewcommand{\headrulewidth}{0pt}
95 \renewcommand{\footrulewidth}{0pt}

```

We do not have headers:

```

96 \pagestyle{fancy}
97 \lhead{}
98 \rhead{}
99 \chead{}

```

The right footer is stuck  $0.833'' + 0.167'' = 1''$  to the right

```

100 \fancyhfoffset[L]{1in}

```

On even pages we put page number and chapter title in footer.

```

101 \fancyfoot[R0]{\fontfamily{\sfdefault}\fontsize{6pt}{6pt}%
102   \fontseries{1q}\selectfont\rightmark%
103   \hspace{2em}\fontseries{bc}\fontsize{9pt}{6pt}\selectfont\thepage}
104 \fancyfoot[L0]{}
105 \fancyfoot[C0]{}

```

On even pages we put page number and chapter number in footer:

```

106 \fancyfoot[LE]{\fontfamily{\sfdefault}\fontseries{bc}\fontsize{9pt}{6pt}%
107   \selectfont\thepage\hspace{2em}%
108   \fontseries{1q}\fontsize{6pt}{6pt}\selectfont%
109   \leftmark}
110 \fancyfoot[RE]{}
111 \fancyfoot[CE]{}

```

### 3.7 Front Matter

`\subtitle` We use subtitle of the book...

```

112 \newcommand{\subtitle}[1]{\gdef\@subtitle{#1}}

```

`\@subtitle` ... With empty default:

```

113 \def\@subtitle{}

```

`\nostarchlogo` The logotype of the publisher:  
114 `\newcommand{\nostarchlogo}[1]{\gdef\@nostarchlogo{#1}}`

`\@nostarchlogo` The default is empty:  
115 `\def\@nostarchlogo{}`

`\nostarchlocation` Similarly for location:  
116 `\newcommand{\nostarchlocation}[1]{\gdef\@nostarchlocation{#1}}`

`\@nostarchlocation` The default is SF:  
117 `\def\@nostarchlocation{San Francisco}`

`\makehalftitle` Now we are ready to typeset the half title page. It is flushed right, cannot be to the left of the page center and must be 0.25" indented from the right:  
118 `\def\makehalftitle{%`  
119 `\clearpage`  
120 `{\pagestyle{empty}\cleardoublepage}%`  
121 `\thispagestyle{empty}%`  
122 `\null\vskip1.025in%`  
123 `\leavevmode\noindent\hspace{1.66in}%`  
124 `\begin{minipage}[t]{2.5625in}%`  
125 `\flushright`  
126 `\fontfamily{\sfdefault}\fontseries{b}%`  
127 `\fontsize{12\p@}{13\p@}\selectfont`  
128 `\MakeUppercase{\@title}%`  
129 `\end{minipage}}`

`\maketitle` Now the main title page:  
130 `\def\maketitle{%`  
131 `\bgroup`  
132 `\clearpage`  
133 `{\pagestyle{empty}\cleardoublepage}%`  
134 `\thispagestyle{empty}%`  
135 `\bgroup`  
136 `\list{}{\leftmargin-1in\rightmargin\z@\labelwidth\z@%`  
137 `\labelsep\z@\listparindent\z@\parsep\z@\itemsep\z@%`  
138 `\topsep\z@\partopsep\z@}%`  
139 `\item\relax`  
140 `\centering`  
141 `\null\vskip0.855in%`  
142 `{\fontfamily{\dgdefault}\fontseries{bk}\fontsize{36\p@}{37\p@}\selectfont`  
143 `\MakeUppercase{\@title}\par}%`  
144 `\if\@subtitle\@empty\relax\else`  
145 `{\null\vskip25\p@%`  
146 `\fontfamily{\dgdefault}\fontseries{bq}\fontsize{24\p@}{25\p@}\selectfont`  
147 `\@subtitle\par}%`  
148 `\fi`  
149 `\vspace{1.7in}%`  
150 `\vspace{-\baselineskip}%`

```

151 {\fontfamily{\sfdefault}\fontseries{hq}\fontsize{18\p@}{22\p@}\selectfont
152   by \@author\par}%
153 \vspace{0.45in}%
154 \vspace{\baselineskip}%
155 \if\@nostarchlogo\@empty\relax\else
156   \includegraphics[height=1.08in]{\@nostarchlogo}\par
157 \fi
158 \vspace{12\p@}%
159 \normalfont\@nostarchlocation\par
160 \endlist
161 \egroup
162 \clearpage\egroup}

```

copyrightpage This is the page copyright data:

```

163 \newenvironment{copyrightpage}{%
164   \clearpage
165   \bgroup
166   \list{}{\leftmargin-1in\rightmargin\z@\labelwidth\z@%
167     \labelsep\z@\listparindent\z@\parsep8\p@\itemsep\z@%
168     \topsep\z@\partopsep\z@}%
169   \item\relax
170   \thispagestyle{empty}%
171   \normalfont\fontsize{8\p@}{10\p@}\selectfont}{%
172   \endlist
173   \egroup
174   \clearpage}

```

cipblock CIP block is supposed to be in typewriter font. So we use verbatim:

```

175 \newenvironment{cipblock}{%
176   \leavevmode\par\normalfont\fontsize{8\p@}{10\p@}\selectfont
177   \textit{Library of Congress Cataloging-in-Publication Data}\par%
178   \ttfamily\@vobeyspaces\obeylines
179   \parindent\z@\parfillskip\@flushglue\parskip\z@skip}{\par\vskip8pt\relax}

```

dedicationpage Dedication is centered:

```

180 \newenvironment{dedicationpage}{%
181   \clearpage
182   {\pagestyle{empty}\cleardoublepage}%
183   \thispagestyle{empty}%
184   \null\vskip1.175in%
185   \centering\normalfont}{\clearpage}

```

### 3.8 Tables of Contents

Standard L<sup>A</sup>T<sub>E</sub>X has just one table of contents. We have two. The table of brief contents will have the extension `tbl`, while the standard table of contents will have the standard extension `toc`.

\briefcontentsname The name for brief contents

```

186 \def\breviefcontentsname{Brief Contents}

```

`\contentsname` Same with `\contentsname`

```
187 \def\contentsname{Contents in Detail}%
```

Special treatment if `babel` is used:

```
188 \AtBeginDocument{\@ifpackageloaded{babel}{%
```

```
189   \addto\captionseenglish{%
```

```
190     \renewcommand{\contentsname}%
```

```
191     {Contents in Detail}}}{}}
```

`\briefftableofcontents` This is the new macro:

```
192 \newcommand\briefftableofcontents{%
```

```
193   \clearpage
```

```
194   {\pagestyle{empty}\cleardoublepage}%
```

```
195   \bgroup
```

```
196   \thispagestyle{empty}%
```

```
197   \markboth{}{\briefcontentsname}%
```

```
198   \null\vskip0.925in%
```

```
199   \list{}{\leftmargin-1.0in\rightmargin0.4in\labelwidth\z@%
```

```
200     \labelsep\z@\listparindent\z@\parsep\z@\itemsep\z@%
```

```
201     \topsep\z@\partopsep\z@}%
```

```
202   \item\relax
```

```
203     {\centering
```

```
204       \fontfamily{\dgdefault}\fontseries{bs}\fontsize{16\p@}{18\p@}\selectfont
```

```
205       \MakeUppercase{\briefcontentsname}\par}\vskip40pt%
```

```
206   \@starttoc{tbc}%
```

```
207   \endlist
```

```
208   \egroup}
```

`\tableofcontents` This is the new macro:

```
209 \renewcommand\tableofcontents{%
```

```
210   \clearpage
```

```
211   {\pagestyle{empty}\cleardoublepage}%
```

```
212   \bgroup
```

```
213   \thispagestyle{empty}%
```

```
214   \markboth{}{\contentsname}%
```

```
215   \null\vskip0.175in%
```

```
216   \list{}{\leftmargin-1.0in\rightmargin0.6in\labelwidth\z@%
```

```
217     \labelsep\z@\listparindent\z@\parsep\z@\itemsep\z@%
```

```
218     \topsep\z@\partopsep\z@}%
```

```
219   \item\relax
```

```
220     {\centering
```

```
221       \fontfamily{\dgdefault}\fontseries{bs}\fontsize{16\p@}{18\p@}\selectfont
```

```
222       \MakeUppercase{\contentsname}\par}\vskip18pt%
```

```
223   \@starttoc{toc}%
```

```
224   \endlist
```

```
225   \egroup}
```

`\@dotsep` Standard L<sup>A</sup>T<sub>E</sub>X provides 4.5 for the distance between dots. We will make this tighter:

```
226 \renewcommand\@dotsep{1.5}
```



`\l@part` This is how we typeset parts in the table of contents

```
227 \renewcommand*\l@part[2]{%
228   \ifnum \c@tocdepth >-2\relax
229     \addpenalty{-\@highpenalty}%
230     \addvspace{28\p@}%
231     \begingroup
232       \parindent \z@ \rightskip \@pnumwidth
233       \parfillskip -\@pnumwidth
234       {\leavevmode
235        \fontfamily{\sfdefault}\fontseries{bq}\fontsize{12\p@}{14\p@}\selectfont
236        #1}\par
237        \nobreak
238        \global\@nobreaktrue
239        \everypar{\global\@nobreakfalse\everypar{}}%
240      \endgroup
241 \fi}
```

`\l@chapter` This is how we typeset chapters in the table of contents

```
242 \renewcommand*\l@chapter[2]{%
243   \ifnum \c@tocdepth >\m@ne
244     \addpenalty{-\@highpenalty}%
245     \vskip 20\p@
246     \setlength\@tempdima{1.5em}%
247     \begingroup
248       \parindent \z@ \rightskip \@pnumwidth
249       \parfillskip -\@pnumwidth
250       \leavevmode
251       \fontfamily{\sfdefault}\fontseries{bq}\fontsize{10\p@}{12\p@}\selectfont
252       #1\nobreak\hfil \nobreak\hb@xt@\@pnumwidth{\hss #2}\par
253       \vskip4\p@\penalty\@highpenalty
254     \endgroup
255 \fi}
```

`\l@section` This is how we typeset sections in the table of contents

```
256 \renewcommand{\l@section}[2]{\@dottedtocline{1}{\z@}{0.25in}{%
257 \fontfamily{\sfdefault}\fontseries{k}\fontsize{9\p@}{11\p@}\selectfont#1}{%
258 \fontfamily{\sfdefault}\fontseries{k}\fontsize{9\p@}{11\p@}\selectfont#2}}
```

`\l@subsection` This is how we typeset subsections in the table of contents

```
259 \renewcommand{\l@subsection}[2]{\@dottedtocline{2}{0.5in}{0.25in}{%
260 \fontfamily{\sfdefault}\fontseries{k}\fontsize{9\p@}{11\p@}\selectfont#1}{%
261 \fontfamily{\sfdefault}\fontseries{k}\fontsize{9\p@}{11\p@}\selectfont#2}}
```

`\l@bpart` There is a special formatting of parts in the brief table of contents:

```
262 \newcommand*\l@bpart[2]{%
263   \ifnum \c@tocdepth >-2\relax
264     \addpenalty{-\@highpenalty}%
265     \addvspace{14\p@}%
266     \begingroup
```

```

267     \parindent \z@ \rightskip \@pnumwidth
268     \parfillskip -\@pnumwidth
269     {\leavevmode
270      \fontfamily{\sfdefault}\fontseries{h}\fontsize{9\p@}{14\p@}\selectfont
271      #1}\par\vskip7\p@%
272      \nobreak
273      \global\@nobreaktrue
274      \everypar{\global\@nobreakfalse\everypar{}}%
275     \endgroup
276     \fi}

```

`\l@bchapter` There is a special formatting of chapters in the brief table of contents:

```

277 \newcommand*\l@bchapter[2]{%
278   \ifnum \c@tocdepth >\m@ne
279     \addpenalty{-\@highpenalty}%
280     \setlength\@tempdima{1.5em}%
281     \begingroup
282       \parindent \z@ \rightskip \@pnumwidth
283       \parfillskip -\@pnumwidth
284       \leavevmode
285       \fontfamily{\sfdefault}\fontseries{k}\fontsize{9\p@}{14\p@}\selectfont
286       #1\nobreak\leaders\hbox{$\m@th
287         \mkern \@dotsep mu\hbox{.}\mkern \@dotsep
288         mu$}\hfill
289       \nobreak\hb@xt@\@pnumwidth{\hss #2}\par
290       \penalty\@highpenalty
291     \endgroup
292     \fi}

```

### 3.9 Main Matter

`\mainmatter` We redefine `\mainmatter` to take care of that blank verso page...

```

293 \renewcommand\mainmatter{%
294   \clearpage
295   {\thispagestyle{empty}\cleardoublepage}%
296   \@mainmattertrue
297   \pagenumbering{arabic}}

```

### 3.10 Back Matter

`\backmatter` We redefine `\backmatter` to take care of that blank verso page...

```

298 \renewcommand\backmatter{%
299   \clearpage
300   {\thispagestyle{empty}\cleardoublepage}%
301   \@mainmatterfalse}

```

### 3.11 Sectioning

We do not number sections and below:

```

302 \setcounter{secnumdepth}{0}

\sectionmark Our section commands do not mark:
303 \def\sectionmark#1{%

    Chapters, unlike the ones in [17], have two obligatory arguments. The second
    argument is the command to fill the “circular graphics”. Otherwise we follow the
    design in [17]. One problem, however: we cannot use \secdef because we have
    three arguments, not two.

\if@firstpara We introduce a macro to get special typesetting for the first paragraph after a
part or a chapter begins:
304 \newif\if@firstpara
305 \@firstparafalse

\@chapterart We also keep track of the current artwork for chapter start:
306 \def\@chapterart{}

\secdef The standard LATEX secdef assumes that starred commands have no optional
argument. This is not right for us:
307 \def\secdef#1#2{\ifstar{\@dblarg{#2}}{\@dblarg{#1}}}}

\part Our parts differ from the ones in standard LaTeX since we use empty pagestyle
rather than plain in part pages. The trick with \cleardoublepage is from [7]
308 \renewcommand\part{%
309   \clearpage
310   {\pagestyle{empty}\cleardoublepage}%
311   \everypar{}%
312   \markboth{}{}%
313   \def\@chapterart{}%
314   \thispagestyle{empty}%
315   \null\vskip0.715in%
316   \secdef\@part\@spart}

\@part This code is used when we have a numbered part.
317 \def\@part[#1]#2{%
318   \ifnum \c@secnumdepth >-2\relax
319     \refstepcounter{part}%
320     \addcontentsline{toc}{part}{\MakeUppercase{\partname}}
321     \thepart\protect\linebreak\penalty\@highpenalty\MakeUppercase{#1}}%
322     \addcontentsline{tbc}{bpart}{\MakeUppercase{\partname~\thepart: #1}}%
323   \else
324     \addcontentsline{toc}{part}{\MakeUppercase{#1}}%
325     \addcontentsline{tbc}{bpart}{\MakeUppercase{#1}}%
326   \fi
327   {\centering
328     \interlinepenalty \@M
329     \normalfont

```

```

330 \ifnum \c@secnumdepth >-2\relax
331 \fontfamily{\sfdefault}\fontsize{80pt}{80pt}\fontseries{bc}\selectfont
332 \MakeUppercase{\partname\nobreakspace\thepart}%
333 \par
334 \vskip 0.45in%
335 \fi
336 \fontfamily{\dgdefault}\fontsize{16pt}{16pt}\fontseries{br}\selectfont
337 \MakeUppercase{#2}\par}%
338 \@endpart}

```

`\@spart` This is used for starred parts (probably not something we are going to encounter...)

```

339 \def\@spart[#1]#2{%
340 \addcontentsline{toc}{part}{\MakeUppercase{#1}}%
341 \addcontentsline{toc}{part}{\MakeUppercase{#1}}%
342 \centering
343 \fontfamily{\dgdefault}\fontsize{16pt}{16pt}\fontseries{br}\selectfont
344 \MakeUppercase{#2}\par}%
345 \@endpart}

```

`\@endpart` When part is finished, we change the settings of the first paragraph:

```

346 \def\@endpart{%
347 \@afterindentfalse
348 \vskip49\p@%
349 \@firstparatrue
350 \@afterheading}

```

`\chapter` First, we suppress floats, set up empty page style and delete indentation after the chapter. Then we check whether the chapter is starred:

```

351 \def\chapter{%
352 \clearpage
353 {\pagestyle{empty}\cleardoublepage}%
354 \everypar{}%
355 \thispagestyle{empty}%
356 \global\@topnum\z@
357 \@afterindentfalse
358 \gdef\@chapterart{}%
359 \secdef\@chapter\@schapter}

```

`\@chapter` The actual work is done by `\@chapter` macro.

```

360 \def\@chapter[#1]#2{%
361 \vspace*{0.622in}
362 {\centering
363 \ifnum \c@secnumdepth > \m@ne
364 \refstepcounter{chapter}%
365 \markboth{\@chapapp~\thechapter}{#1}%
366 \typeout{\@chapapp\space\thechapter.}%
367 \addcontentsline{toc}{chapter}{\thechapter}%
368 \protect\linebreak\penalty\@highpenalty

```

```

369         \MakeUppercase{#1}}%
370     \addcontentsline{tbc}{bchapter}{%
371         \chaptername~\thechapter:~#1}%
372     {\fontfamily{\sfdefault}\fontseries{bc}\fontsize{120pt}{120pt}
373     \selectfont
374     \thechapter\par\nobreak\vskip27pt}%
375 \else
376     \addcontentsline{toc}{chapter}{%
377         \MakeUppercase{#1}}%
378     \addcontentsline{tbc}{bchapter}{#1}%
379     \markboth{#1}{#1}%
380 \fi
381 {\fontfamily{\dgdefault}\fontseries{br}\fontsize{16pt}{20pt}\selectfont
382     \MakeUppercase{#2}\par}}\nobreak\vskip25pt\relax%
383 \@firstparatrue
384 \@afterheading}%

```

`\@schapter` This is used when we have a starred chapter:

```

385 \def\@schapter[#1]#2{%
386     \vspace*{2.747in}
387     {\centering
388         \addcontentsline{toc}{chapter}{%
389             \MakeUppercase{#1}}%
390         \addcontentsline{tbc}{bchapter}{#1}%
391         \markboth{#1}{#1}%
392         {\fontfamily{\dgdefault}\fontseries{br}\fontsize{16pt}{20pt}\selectfont
393             \MakeUppercase{#2}\par}}\nobreak\vskip25pt\relax%
394     \@firstparatrue
395     \@afterheading}%

```

`\@afterheading` We cannot use the standard `\@afterheading` since we want to put the first paragraph in larger font and put there the artwork. So we take `\@afterheading` code and patch it:

```

396 \def\@afterheading{%
397     \@nobreaktrue
398     \everypar{%
399         \if@nobreak
400             \@nobreakfalse
401             \clubpenalty \@M
402             \setbox\z@\lastbox
403         \else
404             \clubpenalty \@clubpenalty
405             \everypar{}%
406         \fi
407         \if@firstpara

```

The first paragraph has a special font and artwork in the beginning:

```

408         \rule{\z@}{49\p@}%
409         \ifx\@chapterart\@empty%
410             \else

```

```

411         \makebox[0pt][r]{\raisebox{-0.5in}[0pt][0pt]{%
412             \@chapterart\hspace{0.21in}}}%
413         \parshape=5
414         0.963in 3.622in
415         0.913in 3.672in
416         0.813in 3.772in
417         0.563in 4.022in
418         0in \textwidth
419         \fi
420         \fontsize{14pt}{16.5pt}\selectfont%
421         \parskip=3pt
422         \else
423             \parskip=0pt
424             \normalsize\selectfont
425         \fi
426     \@firstparafalse}}%

```

`\chapterart` This creates the chapterart:

```

427 \newcommand{\chapterart}[1]{\gdef\@chapterart{#1}}%

```

`\chapterartfile` The simplified version of `\chapterart`:

```

428 \newcommand{\chapterartfile}[1]{\gdef\@chapterart{%
429     \includegraphics[width=1.264in]{#1}}}%

```

`\section` Sections correspond to HeadA in our specs. We use `\everypar{}` in case section starts just after chapter start.

```

430 \renewcommand{\section}{\everypar{}}%
431 \@startsection{section}{1}{-0.75in}{16pt}{6pt}{%
432     \fontfamily{\sfdefault}\fontseries{b}\fontsize{12pt}{16pt}\selectfont}}%

```

`\subsection` Subsections correspond to HeadB in our specs:

```

433 \renewcommand{\subsection}{\everypar{}}%
434 \@startsection{subsection}{2}{0pt}{14pt}{4pt}{%
435     \fontfamily{\sfdefault}\fontshape{it}%
436     \fontseries{bc}\fontsize{12pt}{17pt}\selectfont}}%

```

`\subsubsection` Subsubsections correspond to HeadC in our specs:

```

437 \renewcommand{\subsubsection}{\everypar{}}%
438 \@startsection{subsubsection}{3}{0pt}{10pt}{2pt}{%
439     \fontfamily{\sfdefault}\fontseries{bp}\fontsize{10pt}{14pt}%
440     \selectfont}}%

```

We do not redefine levels below, leaving the options from [17] in place.

### 3.12 Lists

This follows design of [17] with the values from our specifications:

```

\leftmargin The host of \leftmargin commands:
\leftmargini 441 \setlength{\leftmargin}{0.25in}
\leftmarginii 442 \setlength{\leftmarginii}{0.25in}
\leftmarginiii 443 \setlength{\leftmarginiii}{0.25in}
\leftmarginiv 444 \setlength{\leftmarginiv}{0.25in}
\leftmarginv 445 \setlength{\leftmarginv}{0.25in}

\rightmargin Right margin is always zero:
446 \setlength{\rightmargin}{0pt}

\@listi This is the default list on the first level
\@listI 447 \def\@listi{\leftmargin\leftmargini
448 \labelwidth\leftmargin\relax
449 \advance\labelwidth-\labelsep\relax
450 \parsep0\p@\relax
451 \topsep6\p@\relax
452 \itemsep4\p@\relax}
453 \let\@listI\@listi

\@listii And the lists for the next levels:
\@listiii 454 \def\@listii{\leftmargin\leftmarginii
\@listiv 455 \labelwidth\leftmarginii
\@listv 456 \advance\labelwidth-\labelsep
\@listvi 457 \parsep0\p@\relax
458 \topsep0\p@\relax
459 \itemsep0\p@\relax}
460 \def\@listiii{\leftmargin\leftmarginiii
461 \labelwidth\leftmarginiii
462 \advance\labelwidth-\labelsep
463 \parsep0\p@\relax
464 \topsep0\p@\relax
465 \itemsep0\p@\relax}
466 \def\@listiv{\leftmargin\leftmarginiv
467 \labelwidth\leftmarginiv
468 \advance\labelwidth-\labelsep
469 \parsep0\p@\relax
470 \topsep0\p@\relax
471 \itemsep0\p@\relax}
472 \def\@listv{\leftmargin\leftmarginv
473 \labelwidth\leftmarginv
474 \advance\labelwidth-\labelsep
475 \parsep0\p@\relax
476 \topsep0\p@\relax
477 \itemsep0\p@\relax}
478 \def\@listvi{\leftmargin\leftmarginvi
479 \labelwidth\leftmarginvi
480 \advance\labelwidth-\labelsep
481 \parsep0\p@\relax
482 \topsep0\p@\relax
483 \itemsep0\p@\relax}

```

**itemize** We make bullets flushleft:

```
484 \def\itemize{%
485   \ifnum \@itemdepth >\thr@@\@toodeep\else
486     \advance\@itemdepth\@ne
487     \edef\@itemitem{labelitem\romannumeral\the\@itemdepth}%
488     \expandafter
489     \list
490       \csname\@itemitem\endcsname
491     {\def\makelabel##1{##1}}%
492   \fi}
```

**enumerate** We make numbering flushleft:

```
493 \def\enumerate{%
494   \ifnum \@enumdepth >\thr@@\@toodeep\else
495     \advance\@enumdepth\@ne
496     \edef\@enumctr{enum\romannumeral\the\@enumdepth}%
497     \expandafter
498     \list
499       \csname label\@enumctr\endcsname
500       {\usecounter\@enumctr\def\makelabel##1{##1}}%
501     \fi}
```

**quotation** In quotation environment the paragraphs are indented. We use 9pt Roman for quotations:

```
502 \renewenvironment{quotation}{%
503   \list{}{\listparindent\parindent\relax
504     \itemindent\listparindent\relax
505     \rightmargin0.5in\relax
506     \leftmargin0.5in\relax}%
507   \item\fontsize{9pt}{11pt}\selectfont}{\endlist}
```

**quote** Quote is for short quotations without indentations:

```
508 \renewenvironment{quote}{%
509   \list{}{\listparindent0pt\relax
510     \itemindent\listparindent\relax
511     \rightmargin0.5in\relax
512     \leftmargin0.5in\relax}%
513   \item\fontsize{9pt}{11pt}\selectfont}{\endlist}
```

**note** Note is a special environment for asides. It is in italics with the word “NOTE” on the margin:

```
514 \newenvironment{note}{%
515   \list{\makebox[0pt][r]{\fontfamily{%
516     \dgdefault}\fontseries{b}\fontsize{9pt}{11pt}\selectfont
517     NOTE\hspace{2em}}}{\listparindent0pt\relax
518     \topsep9\p@\relax
519     \itemindent0\p@\relax
520     \rightmargin0\p@\relax
521     \leftmargin0\p@\relax}
```



```

522 \labelwidth0\p@\relax
523 \labelsep0\p@}%
524 \item\itshape}{\vspace{-3pt}\endlist}

```

### 3.13 Footnotes

`\footnoterule` We want one inch by 0.25 footnote rule:

```

525 \renewcommand\footnoterule{%
526 \kern6\p@
527 \hrule height 0.25pt depth 0pt width 1in
528 \kern0\p@}

```

`\@footnotetext` We want 4pt between footnotes. Unfortunately the standard functions introduces `\@finalstrut`, which we do not need here...

```

529 \long\def\@footnotetext#1{\insert\footins{%
530 \reset@font\footnotesize
531 \interlinepenalty\interfootnotelinepenalty
532 \splittopskip\footnotesep
533 \splitmaxdepth \dp\strutbox \floatingpenalty \MM
534 \hsize\columnwidth \@parboxrestore
535 \protected@edef\@currentlabel{%
536 \csname p@footnote\endcsname\@thefnmark
537 }%
538 \color@begingroup
539 \@makefnmark{%
540 \rule{z@{13.5pt}}\ignorespaces#1}%
541 \color@endgroup}}%

```

`\footins` We make some space between footnotes:

```

542 \setlength{\skip\footins}{16\p@ \@plus 4\p@ \@minus 0\p@}

```

`\@makefnmark` We do not indent the footnotes:

```

543 \renewcommand\@makefnmark[1]{%
544 \parindent 0\p@%
545 \RaggedRightParindent0\p@%
546 \noindent
547 \@makefnmark#1}

```

### 3.14 Tables and Figures

`\thefigure` We want dash instead of dot between chapter number and figure number:

```

548 \renewcommand \thefigure
549 {\ifnum \c@chapter>z@ \thechapter-\fi \@arabic\c@figure}

```

`\thetable` We want dash instead of dot between chapter number and table number:

```

550 \renewcommand \thetable
551 {\ifnum \c@chapter>z@ \thechapter-\fi \@arabic\c@table}

```

`nostarchfigfmt` This is our captions format for figures

```

552 \DeclareCaptionFormat{nostarchfigfmt}{\fontfamily{\sfdefault}%
553   \fontshape{it}\fontsize{8.5pt}{9pt}\fontseries{k}\selectfont\unskip#1#2#3}

```

`nostarchtabfmt` This is our captions format for tables

```

554 \DeclareCaptionFormat{nostarchtabfmt}{\fontfamily{\sfdefault}%
555   \fontshape{rm}\fontsize{8.5pt}{9pt}\fontseries{h}\selectfont\unskip#1#2%
556   \fontseries{k}\selectfont#3}

```

The figure and table styles:

```

557 \captionsetup[figure]{format=nostarchfigfmt,singlelinecheck=off,
558   aboveskip=8pt,belowskip=8pt}
559 \captionsetup[table]{format=nostarchtabfmt,singlelinecheck=off,
560   aboveskip=0pt,belowskip=4pt}

```

`\tbfont` This is the font used for table body:

```

561 \def\tbfont{%
562   \fontfamily{\sfdefault}\fontseries{k}\fontsize{8pt}{10pt}\selectfont}

```

`\thfont` Font for table headers:

```

563 \def\thfont{%
564   \fontfamily{\sfdefault}\fontseries{h}\fontsize{8pt}{10pt}\selectfont}

```

`\heavyrulewidth` Changing booktabs defaults:

```

\lightrulewidth 565 \heavyrulewidth=3\p@
\cmidrulewidth 566 \lightrulewidth=1.5\p@
567 \cmidrulewidth=1.5\p@

```

`\bottomrule` Our `\bottomrule` is thin:

```

568 \def\bottomrule{\noalign{\ifnum0='}\fi
569   \@aboverulesep=\aboverulesep
570   \global\@belowrulesep=\belowbottomsep
571   \global\@thisruleclass=\@ne
572   \@ifnextchar[{\@BTrule}{\@BTrule[\lightrulewidth]}}

```

`\belowrulesep` Again redefining booktabs:

```

\belowbottomsep 573 \belowrulesep=0.7ex
\abovetopsep 574 \belowbottomsep=0.65pt
575 \aboverulesep=0.7ex
576 \abovetopsep=0.65pt

```

### 3.15 Verbatim Customization

`Code` This is for framed code:

```

577 \DefineVerbatimEnvironment{Code}{Verbatim}{frame=lines,framerule=0.25pt}

```

`\FV@ListParameterHook` The skip before code is too large for us

```

578 \FV@AddToHook\FV@ListParameterHook{\vspace{-6pt}}

```

### 3.16 Bibliography

`\bibsection` We actually use chapter for bibliographic sections, but here we try to be nice to natbib:

```

579 \AtBeginDocument{
580   \def\bibsection{%
581     \clearpage
582     {\pagestyle{empty}\cleardoublepage}%
583     \everypar{}%
584     \thispagestyle{empty}%
585     \global\@topnum\z@
586     \@afterindentfalse
587     \gdef\@chapterart{}%
588     \@nschapterpreamble
589     \vspace*{0.622in}%
590     \addcontentsline{toc}{chapter}{\MakeUppercase{\bibname}}%
591     \addcontentsline{tbc}{bchapter}{\bibname}%
592     {\centering
593      {\fontfamily{dgddefault}\fontseries{br}\fontsize{16pt}{20pt}\selectfont
594       \MakeUppercase{\bibname}\par}}\nobreak\vskip25pt\relax%
595     \@mkboth{\MakeUppercase{\bibname}}{\MakeUppercase{\bibname}}}%

```

`thebibliography` We want bibliography to be in the table of contents:

```

596 \renewenvironment{thebibliography}[1]{%
597   \bibsection
598     \list{\@biblabel{\@arabic{c@enumiv}}}%
599       {\settowidth\labelwidth{\@biblabel{#1}}%
600        \leftmargin\labelwidth
601        \advance\leftmargin\labelsep
602        \@openbib@code
603        \usecounter{enumiv}%
604        \let\p@enumiv\@empty
605        \renewcommand\theenumiv{\@arabic{c@enumiv}}}%
606     \sloppy
607     \clubpenalty4000
608     \@clubpenalty \clubpenalty
609     \widowpenalty4000%
610     \sfcode'\.\@m
611   {\def\@noitemerr
612    {\@latex@warning{Empty 'thebibliography' environment}}}%
613   \endlist}

```

### 3.17 Index

`theindex` We want our index to be in the table of contents too:

```

614 \renewenvironment{theindex}{%
615   \clearpage
616   {\pagestyle{empty}\cleardoublepage}%
617   \everypar{}%

```

```

618 \thispagestyle{empty}%
619 \global\@topnum\z@
620 \@afterindentfalse
621 \gdef\@chapterart{}%
622 \if@twocolumn
623 \@restonecolfalse
624 \else
625 \@restonecoltrue
626 \fi
627 \twocolumn[%
628 \nschapterpreamble
629 \vspace*{0.622in}%
630 \addcontentsline{toc}{chapter}{\MakeUppercase{\indexname}}%
631 \addcontentsline{tbc}{bchapter}{\indexname}%
632 {\centering
633   {\fontfamily{\dgdefault}\fontseries{br}%
634     \fontsize{16pt}{20pt}\selectfont
635     \MakeUppercase{\indexname}\par}}%
636 \nobreak\vskip25pt\relax}%
637 \mkboth{\MakeUppercase\indexname}%
638 {\MakeUppercase\indexname}%
639 \parindent\z@
640 \parskip\z@ \@plus .3\p@\relax
641 \columnseprule \z@
642 \columnsep 0.25in%
643 \let\item\@idxitem}
644 {\if@restonecol\onecolumn\else\clearpage\fi}

\@idxitem This is how we format level 1 index entries:
645 \renewcommand\@idxitem{%
646   \par\hangindent0.45in\normalfont\fontsize{9.5\p@}{11.5\p@}\selectfont
647   \raggedright}

\subitem Level 2 entries:
648 \renewcommand\subitem{\@idxitem \hspace*{0.15in}}

\subsubitem Level 3 entries:
649 \renewcommand\subsubitem{\@idxitem \hspace*{0.3in}}

\indexspace The space between the groups
650 \renewcommand\indexspace{\par \vskip 14\p@\relax}

\indexgroup When an index starts a new letter, we call this macro:
651 \newcommand\indexgroup[1]{\fontfamily{\sfdefault}%
652   \fontseries{bc}\fontsize{11\p@}{13\p@}\selectfont#1}\par\vskip4\p@}

```

### 3.18 Update Page and Colophon

\updatesname Just the name for updates:

```

653 \def\updatesname{Updates}

```

`\updatespage` This is the command that start update page. It looks like chapter, but it does not mark the pages or appear in the tables of contents:

```

654 \newcommand\updatespage{%
655   \clearpage
656   {\pagestyle{empty}\cleardoublepage}%
657   \everypar{}%
658   \thispagestyle{empty}%
659   \global\@topnum\z@
660   \gdef\@chapterart{}%
661   \vspace*{1.875in}%
662   {\centering
663     \fontfamily{\dgdefault}\fontseries{br}%
664     \fontsize{16pt}{20pt}\selectfont
665     \MakeUppercase{\updatesname}\par\nobreak\vskip40\p@}%
666   \@nobreaktrue
667   \everypar{%
668     \if@nobreak
669       \@nobreakfalse
670       \clubpenalty \@M
671       \setbox\z@\lastbox
672       \else
673         \clubpenalty \@clubpenalty
674         \everypar{}%
675       \fi}}

```

`\colophonname` Just the name for colophon:

```

676 \def\colophonname{Colophon}

```

`\colophon` Colophon does not start a separate page:

```

677 \newcommand\colophon{%
678   \everypar{}%
679   \global\@topnum\z@
680   \gdef\@chapterart{}%
681   \vspace*{0.875in}%
682   {\centering
683     \fontfamily{\dgdefault}\fontseries{br}%
684     \fontsize{16pt}{20pt}\selectfont
685     \MakeUppercase{\colophonname}\par\nobreak\vskip40\p@}%
686   \@nobreaktrue
687   \everypar{%
688     \if@nobreak
689       \@nobreakfalse
690       \clubpenalty \@M
691       \setbox\z@\lastbox
692       \else
693         \clubpenalty \@clubpenalty
694         \everypar{}%
695       \fi}\par
696   The fonts used in \emph{\@title} are New Baskerville, Futura, The

```

```

697 Sans Mono Condensed and Dogma. The book was typeset with
698 \LaTeXe{} package
699 \texttt{nostarch} by Boris Veytsman
700 \emph{(\csname ver@nostarch.cls\endcsname).\par}

```

### 3.19 End of Class

```
701 \end{class}
```

### 3.20 Dealing with hyperref

First, we load hyperref with right options. I do not know why bookmarks do not work, but this is important to switch off:

```

702 \nshyper
703 \RequirePackage[breaklinks,colorlinks,linkcolor=black,
704 citecolor=black,pagecolor=black,urlcolor=black,hyperindex,
705 bookmarks=false]{hyperref}

```

hyperref expects the starred parts and chapters to have only one argument—but we have two!

```

706 \AtBeginDocument{%
707   \def\@schapter[#1]#2{%
708     \H@old@schapter[#1]{#2}%
709     \@schapterpreamble}%
710   \def\@spart[#1]#2{%
711     \H@old@spart[#1]{#2}%
712     \Hy@GlobalStepCount\Hy@linkcounter
713     \xdef\@currentHref{part*.\the\Hy@linkcounter}%
714     \Hy@raisedlink{\hyper@anchorstart{\@currentHref}\hyper@anchorend}}%

```

We change the preamble for bibliography and index:

```

715 \def\@schapterpreamble{%
716   \begingroup
717   \let\@mkboth\@gobbletwo
718   \Hy@GlobalStepCount\Hy@linkcounter
719   \xdef\@currentHref{\Hy@chapapp*.\the\Hy@linkcounter}%
720   \Hy@raisedlink{\hyper@anchorstart{\@currentHref}\hyper@anchorend}%
721   \endgroup}

```

We can add information about the file to the pdf metadata as well:

```

722 \let\@old@maketitle\maketitle
723 \def\maketitle{%
724   \hypersetup{pdfauthor=\@author, pdftitle=\@title}%
725   \@old@maketitle}
726 \nshyper

```

### 3.21 MakeIndex Style File

These lines will produce some warnings when running Makeindex as they try to cover two different versions of the program:

```

727 <*ist>
728 lethead_prefix    "\\indexgroup{"
729 lethead_suffix    "\\nopagebreak\\n"
730 lethead_flag      1
731 heading_prefix     "\\indexgroup{"
732 heading_suffix     "\\nopagebreak\\n"
733 headings_flag      1
734 </ist>

```

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## Change History

v0.1		<code>\l@section</code> : Changed LaTeX	
General: First fully functional version	3	default	17
v0.2		<code>\makehalftitle</code> : Introduced the macro	14
<code>\@chapter</code> : Moved up	20	<code>\nostarchlocation</code> : Introduced the macro	14
<code>enumerate</code> : Flush left numbers	24	<code>\nostarchlogo</code> : Introduced the macro	14
<code>itemize</code> : Flush left bullets	24	<code>copyrightpage</code> : Introduced the macro	15
<code>\topmargin</code> : Moved down	12	<code>\part</code> : Changed LaTeX default	19
v0.3		<code>\subtitle</code> : Introduced the macro	13
<code>\@afterheading</code> : Moved the circle art	21	<code>\tableofcontents</code> : Changed LaTeX default	16
<code>\@footnotetext</code> : Changed LaTeX default	25	v0.6	
<code>\clubpenalty</code> : Changed settings	13	<code>\@chapter</code> : Reverted to standard interface	20
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<code>\footnoterule</code> : Increased kern	25	<code>\@schapter</code> : Reverted to standard interface	21
<code>nostarchfigfmt</code> : Added style	26	General: Added MakeIndex style	30
<code>nostarchtabfmt</code> : Added style	26	Documentation update	3
<code>\section</code> : Changed indentation	22	Introduced package <code>nshyper</code>	30
v0.4		<code>\backmatter</code> : Changed LaTeX default	18
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<code>\@nostarchlogo</code> : Introduced the macro	14	<code>\colophon</code> : Introduced the macro	29
<code>\@part</code> : Changed LaTeX default	19	<code>\colophonname</code> : Introduced the macro	29
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<code>\@subtitle</code> : Introduced the macro	13	<code>theindex</code> : Introduced the macro	27
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