

L^AT_EX Style For *No Starch Press* *

Boris Veytsman[†]

2023/03/30, v2.0

Abstract

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

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[†]borisv@lk.net, boris@varphi.com

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1 Introduction

This is the “official” L^AT_EX 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`.

The initial version of this class was written in 2008. Since then a number of changes was made for in-house processing by the *No Starch* team, with special thanks to Alex Freed. In 2023 these changes were incorporated back to the publicly released version.

2 User’s Guide

2.1 Installation

The installation of the class follows the usual practice [1] for L^AT_EX packages:

1. Run `latex` on `nostarch.ins`. This will produce the following files: L^AT_EX class `nostarch.cls`, L^AT_EX style `nshyper.sty` and MakeIndex style `nostarch.ist`.
2. Put the files `nostarch.cls`, `nshyper.sty` and `nostarch.ist` to the places where L^AT_EX and MakeIndex can find them (see [1] or the documentation for your T_EX system).
3. Update the database of file names. Again, see [1] or the documentation for your T_EX 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 have the following options:

1. Typeset your book using only free fonts (the option `nocfonts` discussed below).
2. Buy the fonts and install them.
3. Arrange with *No Starch Press* for the use of these fonts for your book.

The details of the installation are discussed below in Section 2.2.

2.2 Fonts installation

If you wish to try `nostarch` class without bothering to typeset camera-ready copy, you may use the option `nocfonts` for *no commercial fonts*, and the class will use only the free fonts available in T_EX distributions.

If you work with *No Starch Press* on your book, you might be provided with the fonts. Today *No Starch Press* typically uses `xelatex` and expects the fonts in

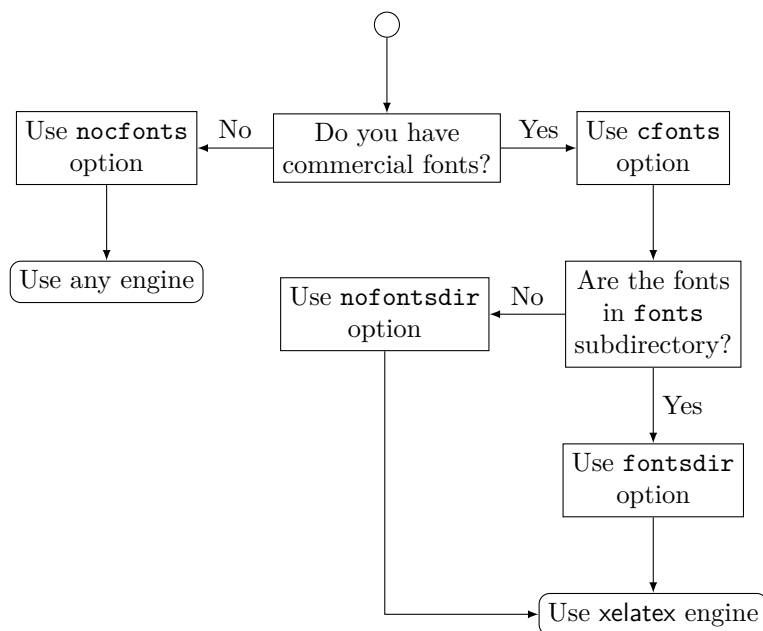


Figure 1: Flowchart for font-related options

True Type format. If this is the case, use the option `cfonts`. *No Starch Press* recommends the authors to put the font files in the subdirectory `fonts` of their main directory. This is where `nostarch` expects them. This is also the layout of directories in the *No Starch Press Overleaf* templates. However, if you prefer to put the fonts in another directory, searchable by `xelatex`, use the option `nofontsdir` in the invocation.

These options are summarized in Figure 1.

2.3 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 `LATEX` that you do have these commercial fonts. On the other hand, the option `nocfonts` instructs `LATEX` to use freely available fonts for typesetting. Of course in this case the result will not look like a *No Starch Press* Book.

options If you use commercial fonts *and* `xelatex`, the latter usually expects them in the subdirectory `fonts` of the main directory (see Section 2.2). The options `fontsdir` (default) sets up this behavior. Use the option `nofontsdir` to tell `xelatex` to search standard font directories insted.

Figure 1 may help to choose the right options.

2.4 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 [2], 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.

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

2.5.1 Front Matter Declarations

`\title` There are five declarations defined by `nostarch.cls`: `\title`, `\subtitle`, `\author`, `\nostarchlogo` and `\nostarchlocation`. The macro `\title`, like the standard L^AT_EX `\title`, sets the title of the book, for example `\title{The book about everything}`.

`\subtitle` The macro `\subtitle` takes one argument and sets up the subtitle of your book, for example `\subtitle{A Guide For Perplexed}`.

`\author` The command `\author` 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 `\and` defined in the standard L^AT_EX. For example, `\author{Ralph Alpher, Hans Bethe and George Gamow}`.

`\nostarchlogo` Due to copyright reasons the logo of *No Starch Press* 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^AT_EX can find it (for example, the directory with the other sources of your book). The command `\nostarchlogo` has one argument: the name of the file, for example, `\nostarchlogo{biglogo.pdf}`. The file will be automatically scaled to the proper size.

`\nostarchlocation` *No Starch Press* books are usually published in San Francisco. If you need to change this setting, use `\nostarchlocation` declaration, for example, `\nostarchlocation{San Francisco; London; Tokyo}`.

2.5.2 Front Matter Directives

`\makehalftitle` The command `\makehalftitle` creates *half title page*. This is normally the first page of the book.

`\maketitle` The command `\maketitle` creates *title page*. It uses logo and full title of the

book.

`copyrightpage` The copyright page is the *verso* 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 `copyrightpage` is used. So just put the information provided by the publisher between `\begin{copyrightpage}` and `\end{copyrightpage}`. Use `\textbf{\sffamily title}` for the title of the book on the copyright line.

`cipblock` One of important parts of the copyright page is *CIP block*. 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 `cipblock` environment, i.e. between `\begin{cipblock}` and `\end{cipblock}`. 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.

`\brieftableofcontents` The standard L^AT_EX 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 `\brieftableofcontents` and `\tableofcontents`.

`\sectionnumberwidth` In most books by *No Starch Press* sections and subsections are unnumbered.
`\subsectionnumberwidth` However, sometimes the books use numbered sections or subsections. In these cases you may want to adjust the widths left for section and subsection numbers in the detailed table of contents. They are set by `\sectionnumberwidth` and `\subsectionnumberwidth`, and can be changed with the usual `\setlength` command.

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.

2.6 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.

2.6.1 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 L^AT_EX: `\chapter[short 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 subsusubsections 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 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{<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^AT_EX 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.

2.6.2 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.

2.6.3 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^AT_EX parlance [3] 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^AT_EX is not an exception. The authors are urged to read the introduction to `booktabs` package [4]. 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`, ...) `\thfont` `tabular` 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}
```

2.6.4 Code Fragments

The class provides two facilities for including code fragments in the books.

`Code` For short unformatted code fragments the `fancyvrb` package [5] facilities are recommended. This package is automatically loaded by the class. 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 [5] about many features of this package.

For longer code fragments the `listings` package [6] is more appropriate. It is also automatically loaded. This package provides a number of useful features, well describe in its manual. We will briefly mention several of them, which might be of interest for the authors of *No Starch Press*:

1. Automatic code formatting according to the rules of the chosen program language (for example, `\lstset{language=C}` or `\lstset{language=Lisp}`).
2. A rich set of different frames: ruled code with `frame=lines`, boxed code with `frame=single` etc.
3. An option to add captions to the listings (the class automatically formats the captions according to the style of *No Starch Press*).
4. An option to make a listing floating.
5. An option to automatically number code lines.
6. An option to add list of listings (with the command `\lstlistoflistings`).

To make the code in `\verb` commands and `verbatim`-like environments be typeset with the `listings` package, you may want to set `fancyvrb=true` in the preamble of your document.

It should be noted that the authors are recommended *not* to use `\texttt` or `\tt` for inline code fragments. The proper way to add inline code is `\verb` or `\lstinline` from the `listings` package. The difference is obvious, for example, in quote characters.

2.7 Back Matter

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

2.7.1 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 [7]. This class should work with `natbib`.

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

2.7.2 Index

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

`\makeindex` To create index:
`\printindex`

1. Put in the preamble of your document the command `\makeindex`.
2. In the body of your document use `\index` commands as described in [3].
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.

2.7.3 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` 2.4, 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 [2023/03/30 v2.0 Typesetting books for No Starch Press]
9 </list>
```

And the driver code:

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

3.2 Options

`\ifnostarch@cfonts` First, let us decide whether we have non-free fonts:

```
26 \newif\ifnostarch@cfonts
27 \nostarch@cfontstrue
28 \DeclareOption{cfonts}{\nostarch@cfontstrue}
29 \DeclareOption{nocfont}{\nostarch@cfontsfalse}
```

`\ifnostarch@fontsdirectory` We also need to check whether we want to use *No Starch* in house `fontsdirectory`

```
30 \newif\ifnostarch@fontsdirectory
31 \nostarch@fontsdirectorytrue
32 \DeclareOption{fontsdirectory}{\nostarch@fontsdirectorytrue}
33 \DeclareOption{nofontsdirectory}{\nostarch@fontsdirectoryfalse}
```

The size-changing options produce a warning:

```
34 \long\def\nostarch@size@warning#1{%
35   \ClassWarning{nostarch}{Size-changing option #1 will not be
36     honored}}%
```

```

37 \DeclareOption{8pt}{\nostarch@size@warning{\CurrentOption}}%
38 \DeclareOption{9pt}{\nostarch@size@warning{\CurrentOption}}%
39 \DeclareOption{10pt}{\nostarch@size@warning{\CurrentOption}}%
40 \DeclareOption{11pt}{\nostarch@size@warning{\CurrentOption}}%
41 \DeclareOption{12pt}{\nostarch@size@warning{\CurrentOption}}%

```

All other options are passed to book:

```

42 \DeclareOption*{\PassOptionsToClass{\CurrentOption}{book}}

```

Now we read the configuration file

```

43 \InputIfFileExists{nostarch.cfg}{%
44   \ClassInfo{nostarch}{%
45     Loading configuration file nostarch.cfg}}{%
46   \ClassInfo{nostarch}{%
47     Configuration file nostarch.cfg is not found}}

```

And process the options:

```

48 \ProcessOptions\relax

```

3.3 Loading Class and Packages

We start with the base class

```

49 \LoadClass[10pt]{book}

```

A bunch of packages:

```

50 \RequirePackage[table]{xcolor}
51 \RequirePackage{iftex, ifpdf, fancyhdr, fancyvrb, booktabs, graphicx,
52 listings, caption, makeidx, upquote, pifont,
53 textcomp, xcolor, lmodern, nameref, float, amssymb, etoolbox,
54 setspace, marginnote}
55 \RequirePackage[framemethod=TikZ]{mdframed}
56 \RequirePackage{soul}
57 \RequirePackage[T1]{fontenc}
58 \RequirePackage{ragged2e}

```

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

```

59 \RequirePackage{ragged2e}
60 \setlength\RaggedRightParindent{\parindent}
61 \RaggedRight

```

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

```

62 \def\@nschapterpreamble{}

```

3.4 Fonts

`\nostarch@fontspath` The path to load fonts

```

63 \ifnostarch@fontsdir
64   \def\nostarch@fontspath#1{Path=fonts/#1/,}
65 \else
66   \def\nostarch@fontspath#1{Path,}
67 \fi

```

If we have commercial fonts, we load them.

```

68 \ifnostarch@cfnts
69 \ifpdfTeX
70   \ClassWarning{nostarch}{Commercial fonts usually require xelatex engine}
71   \RequirePackage{nbaskerv}%
72   \RequirePackage{futuraans}%
73   \RequirePackage[scaled=0.85]{thsmc}%
74   \RequirePackage{dogma}%
75   \newcommand{\dogma}{\fontfamily{fdg}\selectfont}%
76 \else %XeTeX or LuaTeX
77   \RequirePackage{fontspec}
78   \newfontface\dogma[
79     \nostarch@fontspath{dogma}
80     UprightFont=dogma01.ttf,
81     Ligatures=TeX
82   ]{dogma} % Font used for chapter titles
83
84   \newfontface\timesnewroman[
85     \nostarch@fontspath{tnr}
86     UprightFont=times.ttf,
87     BoldFont=timesbd.ttf,
88     ItalicFont=timesi.ttf,
89     BoldItalicFont=timesbi.ttf,
90     Ligatures=TeX
91   ]{timesnewroman}
92
93   \newfontface\futuraabook[
94     \nostarch@fontspath{futuraans}
95     UprightFont=FuturaB37.ttf,
96     BoldFont=FuturaH79.ttf,
97     ItalicFont=FuturaB008.ttf,
98     BoldItalicFont=FuturaCB063.ttf,
99     Ligatures=TeX
100   ]{futuraabook}
101
102   \newfontface\futuraheavy[
103     \nostarch@fontspath{futuraans}
104     UprightFont=FuturaH79.ttf,
105     Ligatures=TeX
106   ]{futuraheavy}
107
108   \newfontface\futuraaboldc[
109     \nostarch@fontspath{futuraans}
110     UprightFont=futuraCB18.ttf,
111     Ligatures=TeX
112   ]{futuraaboldc}
113
114   \newfontface\futuraaboldcoblique[
115     \nostarch@fontspath{futuraans}
116     UprightFont=FuturaCB063.ttf,
117     Ligatures=TeX
118   ]{futuraaboldcoblique}
119
120   \newfontface\futuraoblique[

```

```

121 \nostarch@fontspath{futuraans}
122 UprightFont=FutuB008.ttf,
123 Ligatures=TeX
124 ]{futuraoblique}
125
126 \setmainfont{nbaskerv}[
127 \nostarch@fontspath{nbaskerv}
128 UprightFont=NewBaskervilleEF-Roman.ttf,
129 BoldFont=NewBaskervilleEF-Bold.ttf,
130 ItalicFont=NewBaskervilleEF-RomanIta.ttf,
131 BoldItalicFont=NewBaskervilleEF-BoldIta.ttf,
132 Ligatures=TeX]
133
134 \setmonofont[Scale=0.85,
135 \nostarch@fontspath{thsmc}
136 UprightFont=ThSMCP25.ttf,
137 BoldFont=ThSMCB02.ttf,
138 ItalicFont=ThSMCI29.ttf,
139 BoldItalicFont=TSMCBI56.ttf]{thsmc}
140
141 \setsansfont[
142 \nostarch@fontspath{futuraans}
143 UprightFont=futura.ttf,
144 BoldFont=FuturaB41.ttf,
145 ItalicFont=FutuB008.ttf,
146 BoldItalicFont=FutCB063.ttf,
147 Ligatures=TeX
148 ]{futuraans}
149
150 \fi

```

Otherwise we just use sans serif font for dogma.

```

151 \else
152 \newcommand{\dgdefault}{\sfdefault}%
153 \fi

```

A number of commands to provide font defaults in case we use non-commercial fonts

```

154 \providecommand{\dogma}{\fontfamily{dgdefault}\selectfont}
155 \providecommand{\futuraboldc}{\fontfamily{\sfdefault}\fontseries{bc}%
156 \selectfont}
157 \providecommand{\futuraboldcoblique}{\fontfamily{\sfdefault}\fontseries{bc}%
158 \itshape\selectfont}
159 \providecommand{\futuraheavy}{\fontfamily{\sfdefault}\fontseries{hq}%
160 \selectfont}
161 \providecommand{\futurabook}{\fontfamily{\sfdefault}\fontseries{k}%
162 \selectfont}

```

And switch to normal size—just in case

```
163 \normalsize
```

Special commands for number balls

\wingding The number ball

```
164 \newcommand{\wingding}[1]{\ding{\the\numexpr #1 + 181 \relax}}
```

`\codewingding` The number ball inside code

```

165 \newcommand{\codewingding}[1]{\vbox{\llap{\wingding{#1}\hskip 0.5em}}}

\menuarrow
166 \newcommand\menuarrow{\raisebox{.2ex}{\small $\blacktriangleright$}}

\bettertilde A tilde uses for some texts
167 \newcommand{\bettertilde}{\raisebox{-1ex}{\textasciitilde}}

\slashslash The special slash
168 \newcommand{\slashslash}{%
169   \raisebox{.53ex}{%
170     \scalebox{.5}{%
171       \rotatebox[origin=c]{18}{\mathbf{/}}}%
172     }%
173   }%
174 }
```

`\neq` A better \neq

```

175 \renewcommand{\neq}{\mathrel
176   {%
177     \vphantom{=}%
178     \oalign{\kern.05em\smash{\slashslash}\hidewidth\cr$=\cr}%
179   }%
180 }
181
```

`\keycap` Taken from: <https://tex.stackexchange.com/questions/55664/fake-small-caps-with-xetex-for-225078>

```

182 \newcommand\keycap[1]{\fauxschelper#1 \relax\relax}
183 \def\fauxschelper#1 #2\relax{%
184   \fauxschelphelp#1\relax\relax%
185   \if\relax#2\relax\else\ \fauxschelper#2\relax\fi%
186 }
187 \def\Hscale{.83}\def\Vscale{.72}\def\Cscale{1.00}
188 \def\fauxschelphelp#1#2\relax{%
189   \ifnum`#1>`\ifnum`#1<`\{\scalebox{\Hscale}{\Vscale}{\uppercase{#1}}\else%
190     \scalebox{\Cscale}[1]{#1}\fi\else\scalebox{\Cscale}[1]{#1}\fi%
191   \ifx\relax#2\relax\else\fauxschelphelp#2\relax\fi}
```

3.5 Page Dimensions and Paragraphing

`\paperheight` The trim size:

```

\paperwidth 192 \setlength{\paperheight}{9.25in}
193 \setlength{\paperwidth}{7in}
```

`\pdfpaperheight` If we deal with pdftex, we can use this information more creatively. This was inspired by memoir [8].

```

\pdfvorigin 194 \ifpdf\relax
\pdfhorigin 195   \pdfpageheight=\paperheight
196   \pdfpagewidth=\paperwidth
197   \pdfvorigin=1in
198   \pdfhorigin=1in
199 \fi
```

`\topmargin` The top margin is 0.625". We use fake headers of 12pt:

```

200 \setlength\topmargin{0.625in}
201 \addtolength\topmargin{-1in}
202 \addtolength\topmargin{-12pt}

```

`\textheight` This is the height of the text including footnotes, but excluding running head and foot.

```

203 \setlength\textheight{8in}
204 \addtolength\textheight{-0.207in}

```

Now we take care of the first line height:

```

205 \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):

```

206 \setlength\evensidemargin{0.687in}
207 \addtolength\evensidemargin{-1in}
208 \addtolength\evensidemargin{0.833in}
209 \addtolength\evensidemargin{0.167in}
210 \setlength\oddsidemargin\evensidemargin

```

`\textwidth` The type area is 5.625", but this includes side gap:

```

211 \setlength\textwidth{5.625in}
212 \addtolength\textwidth{-0.833in}
213 \addtolength\textwidth{-0.167in}

```

`\parindent` The paragraph indentation is 0.25":

```

214 \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`

```

215 \setlength\headheight{12pt}
216 \setlength\headsep{0pt}

```

`\footskip` The footer is 8.792" from top

```

217 \setlength\footskip{9in}
218 \addtolength\footskip{-\textheight}
219 \addtolength\footskip{0.067in}
220 \addtolength\footskip{\baselineskip}
221 \addtolength\footskip{-1in}

```

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

`\clubpenalty`

```

222 \widowpenalty=10000
223 \clubpenalty=10000
224 \raggedbottom

```

`\sochapter` Some spacing commands.

```

\sochapter 225 \sodef\sochapter{.150em}{.5em}{1em}
\sotitle 226 \sodef\sotitle{.125em}{.5em}{1em}
\sobox 227 \sodef\sobox{.075em}{.5em}{1em}
\sonote 228 \sodef\sonote{.200em}{.5em}{1em}

```


3.6 Headers and Footers

`\headrulewidth` We do not want decorative rules:

```
\footrulewidth 229 \renewcommand{\headrulewidth}{0pt}
                230 \renewcommand{\footrulewidth}{0pt}
```

We do not have headers:

```
231 \pagestyle{fancy}
232 \lhead{}
233 \rhead{}
234 \chead{}
```

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

```
235 \fancyhfoffset[L]{1in}
```

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

```
236 \fancyfoot[R0]{\sffamily \fontsize{6pt}{6pt}%
237   \fontseries{lq}\selectfont\rightmark%
238   \hspace{2em} \futuraaboldc \fontsize{9pt}{6pt}\selectfont\thepage}
239 \fancyfoot[L0]{}
240 \fancyfoot[C0]{}%
```

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

```
241 \fancyfoot[LE]{\futuraaboldc \fontsize{9pt}{6pt}%
242   \selectfont\thepage}
243   \fontseries{lq}\sffamily \fontsize{6pt}{6pt}\selectfont%
244   \hspace{2em}\leftmark}
245 \fancyfoot[RE]{}
246 \fancyfoot[CE]{}%
```

3.7 Front Matter

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

```
247 \newcommand{\subtitle}[1]{\gdef\@subtitle{#1}}
```

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

```
248 \def\@subtitle{}
```

`\nostarchlogo` The logotype of the publisher:

```
249 \newcommand{\nostarchlogo}[1]{\gdef\@nostarchlogo{#1}}
```

`\@nostarchlogo` The default it empty:

```
250 \def\@nostarchlogo{}
```

`\nostarchlocation` Similarly for location:

```
251 \newcommand{\nostarchlocation}[1]{\gdef\@nostarchlocation{#1}}
```

`\@nostarchlocation` The default is SF:

```
252 \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:

```
253 \def\makehalftitle{%
254   \clearpage
```

```

255 {\pagestyle{empty}\cleardoublepage}%
256 \thispagestyle{empty}%
257 \null%\vskip1.025in%
258 \leavevmode\noindent\hspace{1.66in}%
259 \begin{minipage}[t]{2.5625in}%
260 \flushright
261 \sffamily\bfseries\fontsize{12\p@}{13\p@}\selectfont
262 \MakeUppercase{\@title}%
263 \end{minipage}}

```

maketitle Now the main title page:

```

264 \def\maketitle{%
265 \bgroup
266 \clearpage
267 {\pagestyle{empty}\cleardoublepage}%
268 \thispagestyle{empty}%
269 \bgroup
270 \list{}{\leftmargin-1in\rightmargin\z@\labelwidth\z@%
271 \labelsep\z@\listparindent\z@\parsep\z@\itemsep\z@%
272 \topsep\z@\partopsep\z@}%
273 \item\relax
274 \centering
275 \null\vskip0.855in%
276 {\dogma \fontsize{36\p@}{37\p@}\selectfont
277 \MakeUppercase{\sotitle{\@title}}\par}%
278 \if\@subtitle\@empty\relax\else
279 {\null\vskip25\p@%
280 \dogma \fontsize{24\p@}{25\p@}\selectfont
281 \@subtitle\par}%
282 \fi
283 \vspace{2.15in}%
284 \vspace{-\baselineskip}%
285 {\futuraheavy\fontsize{18\p@}{22\p@}\selectfont
286 by \@author\par}%
287 \vspace{12\p@}%
288 \vspace{\baselineskip}%
289 \if\@nostarchlogo\@empty\relax\else
290 \includegraphics[height=1.08in]{\@nostarchlogo}\par
291 \fi
292 \vspace{12\p@}%
293 \normalfont\@nostarchlocation\par
294 \endlist
295 \egroup
296 \clearpage\egroup}

```

copyrightpage This is the page copyright data:

```

297 \newenvironment{copyrightpage}{%
298 \clearpage
299 \bgroup
300 \list{}{\leftmargin-1in\rightmargin\z@\labelwidth\z@%
301 \labelsep\z@\listparindent\z@\parsep8\p@\itemsep\z@%
302 \topsep\z@\partopsep\z@}%
303 \item\relax
304 \thispagestyle{empty}%

```

```

305 \normalfont\fontsize{8\p@}{10\p@}\selectfont}{%
306 \endlist
307 \egroup
308 \clearpage}

```

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

```

309 \newenvironment{cipblock}{%
310 \leavevmode\par\normalfont\fontsize{8\p@}{10\p@}\selectfont
311 \textit{Library of Congress Cataloging-in-Publication Data}\par%
312 \ttfamily\@vobeyspaces\obeylines
313 \parindent\z@\parfillskip\@flushglue\parskip\z@skip}{\par\vskip8pt\relax}

```

`dedicationpage` Dedication is centered:

```

314 \newenvironment{dedicationpage}{%
315 \clearpage
316 \bgroup
317 \list{}{\leftmargin-1in\rightmargin\z@\labelwidth\z@%
318 \labelsep\z@\listparindent\z@\parsep8\p@\itemsep\z@%
319 \topsep\z@\partopsep\z@}%
320 \item\relax
321 \thispagestyle{empty}%
322 \null\vskip1.175in%
323 \centering\normalfont}{%
324 \endlist
325 \egroup
326 \clearpage}

```

3.8 Tables of Contents

Standard L^AT_EX 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

```

327 \def\brieftocname{Brief Contents}

```

`\contentsname` Same with `\contentsname`

```

328 \def\contentsname{Contents in Detail}%

```

Special treatment if `babel` is used:

```

329 \AtBeginDocument{\@ifpackageloaded{babel}{%
330 \addtocaptionsenglish{%
331 \renewcommand{\contentsname}{%
332 {Contents in Detail}}{}}

```

`\apptoc` Changing chapter names in appendix

```

333 \newcommand{\apptoc}{\renewcommand{\chaptername}{Appendix}}

```

`\brieftableofcontents` This is the new macro:

```

334 \newcommand\brieftableofcontents{%
335 \clearpage
336 {\pagestyle{empty}\cleardoublepage}%
337 \bgroup

```

```

338 \thispagestyle{empty}%
339 \markboth{\briefcontentsname}{\briefcontentsname}%
340 \null\vskip0.925in%
341 \list{}{\leftmargin-1.0in\rightmargin0.4in\labelwidth\z@%
342   \labelsep\z@\listparindent\z@\parsep\z@\itemsep\z@%
343   \topsep\z@\partopsep\z@}%
344 \item\relax
345   {\centering
346     \dogma\fontsize{16\p@}{18\p@}\selectfont
347     \MakeUppercase{\sochapter{Brief Contents}}\par}\vskip40pt%
348 \@starttoc{tbc}%
349 \endlist
350 \egroup}

```

`\tableofcontents` This is the new macro:

```

351 \renewcommand\tableofcontents{%
352   \clearpage
353   {\pagestyle{empty}\cleardoublepage}%
354   \bgroup
355   \thispagestyle{empty}%
356   \markboth{\contentsname}{\contentsname}%
357   \null\vskip0.175in%
358   \list{}{\leftmargin-1.0in\rightmargin0.6in\labelwidth\z@%
359     \labelsep\z@\listparindent\z@\parsep\z@\itemsep\z@%
360     \topsep\z@\partopsep\z@}%
361   \item\relax
362     {\centering
363       \dogma\fontsize{16\p@}{18\p@}\selectfont
364       \MakeUppercase{\sochapter{Contents in Detail}}\par}\vskip18pt%
365   \@starttoc{toc}%
366   \endlist
367   \egroup}

```

`\@dotsep` Standard L^AT_EX provides 4.5 for the distance between dots. We will make this tighter:

```

368 \renewcommand\@dotsep{1.5}

```

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

```

369 \renewcommand*\l@part[2]{%
370   \ifnum \c@tocdepth >-2\relax
371     \addpenalty{-\@highpenalty}%
372     \addvspace{28\p@}%
373     \begingroup
374       \parindent \z@ \rightskip \@pnumwidth
375       \parfillskip -\@pnumwidth
376       {\leavevmode
377         \sffamily\bfseries\fontsize{12\p@}{14\p@}\selectfont
378         #1}\par
379       \nobreak
380       \global\@nobreaktrue
381       \everypar{\global\@nobreakfalse\everypar{}}}%
382     \endgroup
383   \fi}

```

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

```
384 \renewcommand*\l@chapter[2]{%
385   \ifnum \c@tocdepth >\m@ne
386     \addpenalty{-\@highpenalty}%
387     \vskip 20\p@
388     \setlength\@tempdima{1.5em}%
389     \begingroup
390       \parindent \z@ \rightskip \@pnumwidth
391       \parfillskip -\@pnumwidth
392       \leavevmode
393       \sffamily \bfseries \fontsize{10\p@}{12\p@}\selectfont{#1}%
394       \nobreak\hfil \nobreak\hb@xt@\@pnumwidth{\hss #2}\par
395       \vskip4\p@\penalty\@highpenalty
396     \endgroup
397   \fi}
```

`\sectionnumberwidth` The number width for sections. Normally the width of 99.99

```
398 \newlength{\sectionnumberwidth}
399 \settowidth{\sectionnumberwidth}{%
400   \futura-book\fontsize{9\p@}{11\p@}\selectfont
401   99.99}
```

`\boldsectionnumberwidth` The number width for bold sections. Normally the width of 99.99

```
402 \newlength{\boldsectionnumberwidth}
403 \settowidth{\boldsectionnumberwidth}{%
404   \futuraheavy\fontsize{9\p@}{11\p@}\selectfont
405   99.99}
```

`\subsectionnumberwidth` The number width for subsections. Normally the width of 99.99.99

```
406 \newlength{\subsectionnumberwidth}
407 \settowidth{\subsectionnumberwidth}{%
408   \futura-book\fontsize{9\p@}{11\p@}\selectfont
409   99.99.99}
```

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

```
410 \renewcommand{\l@section}[2]{\@dottedtocline{1}{\z@}{%
411   \sectionnumberwidth}{%
412   \futura-book\fontsize{9\p@}{11\p@}\selectfont#1}{%
413   \futura-book\fontsize{9\p@}{11\p@}\selectfont#2}}
```

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

```
414 \renewcommand{\l@subsection}[2]{\@dottedtocline{2}{0.5in}%
415   {\subsectionnumberwidth}{%
416   \futura-book\fontsize{9\p@}{11\p@}\selectfont#1}{%
417   \futura-book\fontsize{9\p@}{11\p@}\selectfont#2}}
```

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

```
418 \newcommand*\l@boldsection[2]{\bfseries\@dottedtocline{1}{\z@}{%
419   \boldsectionnumberwidth}{%
420   \futuraheavy\fontsize{9\p@}{11\p@}\selectfont#1}{%
421   \futuraheavy\fontsize{9\p@}{11\p@}\selectfont#2}}}
```

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

```

422 \newcommand*\l@bpart[2]{%
423   \ifnum \c@tocdepth >-2\relax
424     \addpenalty{-\@highpenalty}%
425     \addvspace{14\p@}%
426     \begingroup
427       \parindent \z@ \rightskip \@pnumwidth
428       \parfillskip -\@pnumwidth
429       {\leavevmode
430        \futuraheavy\fontsize{9\p@}{14\p@}\selectfont
431        #1}\par\vskip7\p@%
432        \nobreak
433        \global\@nobreaktrue
434        \everypar{\global\@nobreakfalse\everypar{}}}%
435     \endgroup
436   \fi}

```

`\@pnumwidth`

```

437 \renewcommand{\@pnumwidth}{17pt}

```

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

```

438 \newcommand*\l@bchapter[2]{%
439   \ifnum \c@tocdepth >\m@ne
440     \addpenalty{-\@highpenalty}%
441     \setlength\@tempdima{1.5em}%
442     \begingroup
443       \parindent \z@ \rightskip \@pnumwidth
444       \parfillskip -\@pnumwidth
445       \leavevmode
446       \futuraheavy\fontsize{9\p@}{14\p@}\selectfont
447       #1\nobreak\leaders\hbox{$\m@th
448         \mkern \@dotsep mu\hbox{.}\mkern \@dotsep
449         mu$}\hfill
450       \nobreak\hb@xt@\@pnumwidth{\hss #2}\par
451       \penalty\@highpenalty
452     \endgroup
453   \fi}

```

3.9 Main Matter

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

```

454 \renewcommand\mainmatter{%
455   \clearpage
456   {\thispagestyle{empty}\cleardoublepage}%
457   \@mainmattertrue
458   \pagenumbering{arabic}}

```

3.10 Back Matter

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

```

459 \renewcommand\backmatter{%
460   \clearpage
461   {\thispagestyle{empty}\cleardoublepage}%

```

```
462 \@mainmatterfalse}
```

3.11 Sectioning

We do not number sections and below:

```
463 \setcounter{secnumdepth}{0}
```

`\sectionmark` Our section commands do not mark:

```
464 \def\sectionmark#1{}
```

Chapters, unlike the ones in [9], have *two* obligatory arguments. The second argument is the command to fill the “circular graphics”. Otherwise we follow the design in [9]. 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:

```
465 \newif\if@firstpara
466 \@firstparafalse
```

`\turnoffbigpara` And the code to manually turn it off

```
467 \newcommand{\turnoffbigpara}{\@firstparafalse}
```

`\@chapterart` We also keep track of the current artwork for chapter start:

```
468 \def\@chapterart{}
```

`\secdef` The standard L^AT_EX `secdef` assumes that starred commands have no optional argument. This is not right for us:

```
469 \def\secdef#1#2{\@ifstar{\@dblarg{#2}}{\@dblarg{#1}}}
```

`\part` Our parts differ from the ones in standard L^AT_EX since we use empty pagestyle rather than plain in part pages. The trick with `\cleardoublepage` is from [10]

```
470 \renewcommand\part{%
471   \clearpage
472   {\pagestyle{empty}\cleardoublepage}%
473   \everypar{}%
474   \markboth{}{}%
475   \def\@chapterart{}%
476   \thispagestyle{empty}%
477   \null\vskip0.715in%
478   \secdef\@part\@spart}
```

`\@part` This code is used when we have a numbered part.

```
479 \def\@part[#1]#2{%
480   \ifnum \c@secnumdepth >-2\relax
481     \refstepcounter{part}%
482     \addcontentsline{toc}{part}{\MakeUppercase{\partname}}
483     \thepart\protect\linebreak\penalty\@highpenalty\MakeUppercase{#1}}%
484     \addcontentsline{toc}{part}{\MakeUppercase{\partname~\thepart: \futuraheavy #1}}%
485   \else
486     \addcontentsline{toc}{part}{\MakeUppercase{#1}}%
487     \addcontentsline{toc}{part}{\MakeUppercase{\futuraheavy #1}}%
```

```

488 \fi
489 {\centering
490 \interlinepenalty \@M
491 \normalfont
492 \ifnum \c@secnumdepth >-2\relax
493 \futuraboldc\fontsize{80pt}{80pt}\selectfont
494 \MakeUppercase{\partname\nobreakspace\thepart}%
495 \par
496 \vskip 0.45in%
497 \fi
498 \dogma \fontsize{16pt}{16pt}\selectfont
499 \MakeUppercase{\sochapter{#2}}\par}%
500 \@endpart}

```

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

```

501 \def\@spart[#1]#2{%
502 \addcontentsline{toc}{part}{\MakeUppercase{#1}}%
503 \addcontentsline{tbc}{bpart}{\MakeUppercase{#1}}%
504 {\centering
505 \dogma \fontsize{16pt}{16pt}\selectfont
506 \MakeUppercase{\sochapter{#2}}\par}%
507 \@endpart}

```

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

```

508 \def\@endpart{%
509 \@afterindentfalse
510 \vskip49\p@%
511 \@firstparatrue
512 \@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:

```

513 \def\chapter{%
514 \clearpage
515 {\pagestyle{empty}\cleardoublepage}%
516 \everypar{}%
517 \thispagestyle{empty}%
518 \global\@topnum\z@
519 \@afterindentfalse
520 \gdef\@chapterart{}%
521 \secdef\@chapter\@schapter}

```

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

```

522 \def\@chapter[#1]#2{%
523 \vspace*{0.622in}
524 \ifnum \c@secnumdepth > \m@ne
525 \refstepcounter{chapter}%
526 \typeout{Chapter:\thepage\space\@currentlabel}%
527 \markboth{\@chapapp~\thepage}{#1}%
528 \typeout{\@chapapp\space\thepage}%
529 \addcontentsline{toc}{chapter}{\thepage}%
530 \protect\linebreak\penalty\@highpenalty
531 \MakeUppercase{#1}}%
532 \addcontentsline{tbc}{bchapter}{%

```



```

533 \chaptername~\thechapter:~#1}%
534 {\centering
535 \futuraboldc\fontsize{120pt}{120pt}
536 \selectfont
537 \thechapter\par\nobreak\vskip27pt}%
538 \else
539 \addcontentsline{toc}{chapter}{%
540 \MakeUppercase{#1}}%
541 \addcontentsline{toc}{chapter}{#1}%
542 \markboth{#1}{#1}%
543 \fi
544 {\centering
545 \dogma\fontsize{16pt}{18pt}\selectfont
546 \MakeUppercase{\sochapter{#2}}\par\nobreak\vskip25pt\relax%
547 \@firstparatrue
548 \@afterheading}%

```

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

```

549 \def\@schapter[#1]#2{%
550 \vspace*{2.747in}
551 {\centering
552 \phantomsection
553 \addcontentsline{toc}{chapter}{%
554 \MakeUppercase{#1}}%
555 \addcontentsline{toc}{chapter}{#1}%
556 \markboth{#1}{#1}%
557 {\fontsize{16pt}{18pt}\selectfont
558 \MakeUppercase{\dogma \sochapter{#2}}\par}}\nobreak\vskip25pt\relax%
559 \@firstparatrue
560 \@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:

```

561 \def\@afterheading{%
562 \@nobreaktrue
563 \everypar{%
564 \if@nobreak
565 \@nobreakfalse
566 \clubpenalty \@M
567 \setbox\z@\lastbox
568 \else
569 \clubpenalty \@clubpenalty
570 \everypar{}%
571 \fi
572 \if@firstpara

```

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

```

573 \rule{\z@}{49\p@}%
574 \ifx\@chapterart\empty%
575 \else
576 \makebox[0pt][r]{\raisebox{-0.5in}[0pt][0pt]{%
577 \chapterart\hspace{0.21in}}}%
578 \parshape=5

```

```

579      0.963in 3.622in
580      0.913in 3.672in
581      0.813in 3.772in
582      0.563in 4.022in
583      0in \textwidth
584      \fi
585      \fontsize{14pt}{16.5pt}\selectfont%
586      \parskip=3pt
587      \else
588        \parskip=0pt
589        \normalsize\selectfont
590      \fi
591      \@firstparafalse}}%

```

\chapterwithquote

```

592 \def\chapterwithquote{%
593   \clearpage
594   {\pagestyle{empty}\cleardoublepage}%
595   \everypar{}%
596   \thispagestyle{empty}%
597   \global\@topnum\z@
598   \@afterindentfalse
599   \gdef\@chapterart{}%
600   \secdef\@chapterwithquote\@schapter}

```

\@chapterwithquote

```

601 \def\@chapterwithquote[#1]#2#3#4{%
602   \vspace*{0.622in}
603   \ifnum \c@secnumdepth > \m@ne
604     \refstepcounter{chapter}%
605     \typeout{Chapter:\thechapter\space\@currentlabel}%
606     \markboth{\@chapapp~\thechapter}{#1}%
607     \typeout{\@chapapp\space\thechapter.}%
608     \addcontentsline{toc}{chapter}{\thechapter%
609       \protect\linebreak\penalty\@highpenalty
610       \MakeUppercase{#1}}%
611     \addcontentsline{toc}{chapter}{%
612       \chaptername~\thechapter:~#1}%
613     {\centering
614       \futura\font{120pt}{120pt}
615       \selectfont
616       \thechapter\par\nobreak\vskip27pt}%
617     \else
618       \addcontentsline{toc}{chapter}{%
619         \MakeUppercase{#1}}%
620       \addcontentsline{toc}{chapter}{#1}%
621       \markboth{#1}{#1}%
622       \fi
623     {\centering
624       \dogma\font{16pt}{18pt}\selectfont
625       \MakeUppercase{\sochapter{#2}}\par\vspace{.1in}\normalfont\font{9pt}{11pt}\selectfont
626       \@firstpartrue
627       \@afterheading}%

```

`\chapterart` This creates the chapterart:

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

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

```
629 \newcommand{\chapterartfile}[1]{\gdef\@chapterart{%
630     \includegraphics[width=1.264in]{#1}}}%
```

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

```
631 \renewcommand{\section}{\everypar{}%
632     \@startsection{section}{1}{-0.75in}{16pt}{6pt}{%
633         \sffamily \bfseries \fontsize{12pt}{16pt}\selectfont}}%
```

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

```
634 \renewcommand{\subsection}{\everypar{}%
635     \@startsection{subsection}{2}{0pt}{14pt}{4pt}{%
636         \futura boldc oblique
637         \fontsize{12pt}{17pt}\selectfont}}%
```

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

```
638 \renewcommand{\subsubsection}{\everypar{}%
639     \@startsection{subsubsection}{3}{0pt}{10pt}{2pt}{%
640         \futura boldc \fontsize{10pt}{14pt}%
641         \selectfont}}%
```

We do not redefine levels below, leaving the options from [9] in place.

3.12 Lists

This follows design of [9] with the values from our specifications:

`\leftmargin` The host of `\leftmargin` commands:

```
\leftmarginini 642 \setlength{\leftmargin}{0.25in}
\leftmarginiii 643 \setlength{\leftmarginii}{0.25in}
\leftmarginiiii 644 \setlength{\leftmarginii}{0.25in}
\leftmarginiv 645 \setlength{\leftmarginiii}{0.25in}
646 \setlength{\leftmarginiv}{0.25in}
```

`\rightmargin` Right margin is always zero:

```
647 \setlength{\rightmargin}{0pt}
```

`\@listi` This is the default list on the first level

```
\@listI 648 \def\@listi{\leftmargin\leftmargini
649     \labelwidth\leftmargini\relax
650     \advance\labelwidth-\labelsep\relax
651     \parsep0\p@\relax
652     \topsep6\p@\relax
653     \itemsep4\p@\relax}
654 \let\@listI\@listi
```

```

\@listii And the lists for the next levels:
\@listiii 655 \def\@listii{\leftmargin\leftmarginii
\@listiv 656 \labelwidth\leftmarginii
\@listv 657 \advance\labelwidth-\labelsep
\@listvi 658 \parsep0\p@\relax
659 \topsep0\p@\relax
660 \itemsep0\p@\relax}
661 \def\@listiii{\leftmargin\leftmarginiii
662 \labelwidth\leftmarginiii
663 \advance\labelwidth-\labelsep
664 \parsep0\p@\relax
665 \topsep0\p@\relax
666 \itemsep0\p@\relax}
667 \def\@listiv{\leftmargin\leftmarginiv
668 \labelwidth\leftmarginiv
669 \advance\labelwidth-\labelsep
670 \parsep0\p@\relax
671 \topsep0\p@\relax
672 \itemsep0\p@\relax}
673 \def\@listv{\leftmargin\leftmarginv
674 \labelwidth\leftmarginv
675 \advance\labelwidth-\labelsep
676 \parsep0\p@\relax
677 \topsep0\p@\relax
678 \itemsep0\p@\relax}
679 \def\@listvi{\leftmargin\leftmarginvi
680 \labelwidth\leftmarginvi
681 \advance\labelwidth-\labelsep
682 \parsep0\p@\relax
683 \topsep0\p@\relax
684 \itemsep0\p@\relax}

itemize We make bullets flushleft:
685 \def\itemize{%
686 \ifnum \@itemdepth >\thr@@\toodeep\else
687 \advance\@itemdepth\@ne
688 \edef\@itemitem{labelitem\romannumeral\the\@itemdepth}%
689 \expandafter
690 \list
691 \csname\@itemitem\endcsname
692 {\def\makelabel##1{##1}}%
693 \fi}

enumerate We make numbering flushleft:
694 \def\enumerate{%
695 \ifnum \@enumdepth >\thr@@\toodeep\else
696 \advance\@enumdepth\@ne
697 \edef\@enumctr{enum\romannumeral\the\@enumdepth}%
698 \expandafter
699 \list
700 \csname label\@enumctr\endcsname
701 {\usecounter\@enumctr\def\makelabel##1{##1}}%
702 \fi}

```

description

```
703 \renewenvironment{description}{%
704   {\list{}{\labelwidth=0pt \leftmargin=18pt
705     \let\makelabel\descriptionlabel}}
706   {\endlist}}
```

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

```
707 \renewenvironment{quotation}{%
708   \list{}{\listparindent\parindent\relax
709     \itemindent\listparindent\relax
710     \rightmargin0.5in\relax
711     \leftmargin0.5in\relax}%
712   \item\fontsize{9pt}{11pt}\selectfont}{\endlist}
```

quote Quote is for short quotations without indentations:

```
713 \renewenvironment{quote}{%
714   \list{}{\listparindent0pt\relax
715     \itemindent\listparindent\relax
716     \rightmargin0.5in\relax
717     \leftmargin0.5in\relax}%
718   \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:

```
719 \newenvironment{note}{%
720   \list{\makebox[0pt][r]{\dogma \fontsize{7.5pt}{12pt}
721     \colorbox{black}{\textcolor{white}{\sonote{NOTE}}}}\hspace{2em}}{\listparindent0pt\rel
722     \topsep9\p@\relax
723     \itemindent0\p@\relax
724     \rightmargin0\p@\relax
725     \leftmargin0\p@\relax
726     \labelwidth0\p@\relax
727     \labelsep0\p@}%
728   \item\itshape}{\vspace{-3pt}\endlist}
```

plainlist

3.13 Footnotes

\footnoterule We want one inch by 0.25 footnote rule:

```
729 \renewcommand\footnoterule{%
730   \kern6\p@
731   \hrule height 0.25pt depth 0pt width 1in
732   \kern2\p@}
```

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

```
733 \long\def\@footnotetext#1{\insert\footins{%
734   \reset@font\footnotesize
735   \interlinepenalty\interfootnotelinepenalty
736   \splittopskip\footnotesep
737   \splitmaxdepth \dp\strutbox \floatingpenalty \@MM
```

```

738 \hsize\columnwidth \@parboxrestore
739 \protected@edef\@currentlabel{%
740     \csname p@footnote\endcsname\@thefnmark
741 }%
742 \color@begingroup
743 \makefnmark{%
744     \rule\z@{13.5pt}\ignorespaces#1}%
745 \color@endgroup}}%

```

`\footins` We make some space between footnotes:

```
746 \setlength{\skip\footins}{20\p@ \@plus 4\p@ \@minus 0\p@}
```

`\makefnmark` We do not indent the footnotes:

```

747 % \renewcommand\@makefnmark[1]{%
748 %     \parindent 0\p@
749 %     \RaggedRightParindent0\p@
750 %     \noindent
751 %     \@makefnmark\space#1}
752 \renewcommand\@makefnmark[1]{%
753 \@thefnmark.~#1}

```

3.14 Tables, Figures and Listings

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

```

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

```

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

```

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

```

`\thelistings` And the same for listings. Note that listings package uses `\AtBeginDocument`, so we need to postpone this

```

758 \AtBeginDocument{%
759     \renewcommand \thelstlisting
760     {\ifnum \c@chapter>\z@ \thechapter-\fi \@arabic\c@lstlisting}%
761 }

```

Default listings settings

```

762 \lstset{
763     frame = lines,
764     showstringspaces=false,
765     tabsize=4,
766     title=\lstname,
767     numbers = none,
768     caption={},
769     literate={\ }{{\ }}1{{\textquotedbl}}1,
770     escapeinside={(\@}{@)},
771     captionpos=b,
772     basicstyle=\ttfamily,
773     columns=fullflexible,
774     moredelim=[is][\bfseries]{***}{***},
775     moredelim=[is][\itshape]{___}{___},

```

```

776   moredelim=[is][\bfseries\itshape]{&&&}{&&&},
777   aboveskip=8pt,
778 }

```

codewide

```

779 \lstnewenvironment
780   {codewide}[1][
781   {
782   \renewcommand{\codewingding}[1]
783   {\ding{\the\numexpr ##1 + 181 \relax}}
784   \captionsetup[lstlisting]{font=nostarchfigfont,singlelinecheck=off,
785   aboveskip=4pt, belowskip=-12pt, margin=-70pt}
786   \lstset{
787     frame = lines,
788     showstringspaces=false,
789     tabsize=4,
790     title=\lstname,
791     numbers = none,
792     literate={\ }{{\ }}1{"}{\textquotedbl}1,
793     escapeinside={(@){@}},
794     captionpos=b,
795     caption={},
796     basicstyle=\ttfamily,
797     columns=fullflexible,
798     moredelim=[is][\bfseries]{***}{***},
799     moredelim=[is][\itshape]{___}{___},
800     moredelim=[is][\bfseries\itshape]{&&&}{&&&},
801     xleftmargin=-70pt,
802     aboveskip=8pt,
803     #1
804   }}
805   {
806   \renewcommand{\codewingding}[1]
807   {\vbox{\llap{\wingding{#1}\hskip 0.5em}}}
808   \captionsetup[lstlisting]{font=nostarchfigfont,singlelinecheck=off,
809   aboveskip=4pt, belowskip=0pt, margin=0pt}}

```

Fonts for captions

```

810 \DeclareCaptionFont{nostarchfigfont}{\sffamily \itshape \fontsize{8.5pt}{9pt}\selectfont}
811 \DeclareCaptionFont{nostarchtabfont}{\futura book \fontsize{9pt}{9pt}\selectfont}
812 \captionsetup[figure]{font=nostarchfigfont,singlelinecheck=off,
813   aboveskip=8pt,belowskip=-8pt}
814 \captionsetup[lstlisting]{font=nostarchfigfont,singlelinecheck=off,
815   aboveskip=4pt, belowskip=0pt}
816 \captionsetup[table]{font=nostarchtabfont,singlelinecheck=off,
817   aboveskip=0pt,belowskip=4pt, labelfont=bf}

```

\captionlst

\boxlst

\tbfont

\tablelst This is the font used for table body:

```

818 \def\tbfont{%
819   \futura book\fontsize{8.5pt}{10pt}\selectfont}

```

\thfont Font for table headers:

```

820 \def\thfont{%
821   \futuraheavy\fontsize{9pt}{10pt}\selectfont}

822 \AtBeginEnvironment{tabular}{\tbfont}

\heavyrulewidth Changing booktabs defaults:
\lightrulewidth 823 \heavyrulewidth=3\p@
\cmidrulewidth 824 \lightrulewidth=1\p@
825 \cmidrulewidth=1.5\p@

\bottomrule Our \bottomrule is thin:
826 \def\bottomrule{\noalign{\ifnum0=`\fi
827   \@aboverulesep=\aboverulesep
828   \global\@belowrulesep=\belowbottomsep
829   \global\@thisruleclass=\@ne
830   \@ifnextchar[{\@BTrule}{\@BTrule[\lightrulewidth]}}

\belowrulesep Again redefining booktabs:
\belowbottomsep 831 \belowrulesep=0.7ex
\abovetopsep 832 \belowbottomsep=0.65pt
833 \aboverulesep=0.7ex
834 \abovetopsep=0.65pt

tablewide Wide table
835 \newenvironment{tablewide}[1] []
836   {
837     \captionsetup[table]{font=nostarchtabfont,singlelinecheck=off,
838     aboveskip=0pt,belowskip=4pt, labelfont=bf, margin=-70pt}
839     \begin{table} [#1]
840   }
841   {
842     \end{table}
843     \captionsetup[table]{font=nostarchtabfont,singlelinecheck=off,
844     aboveskip=0pt,belowskip=4pt, labelfont=bf, margin=0pt}
845   }

tabularwide Wide tabular
846 \newenvironment{tabularwide}[1]
847   {
848     \hspace*{-72pt}
849     \begin{tabular} [#1]
850   }
851   {
852     \end{tabular}
853   }

figurewide Wide figure
854 \newenvironment{figurewide}[1] []
855   {
856     \captionsetup[figure]{font=nostarchfigfont,singlelinecheck=off,
857     aboveskip=8pt,belowskip=-8pt, margin=-70pt}
858     \begin{figure} [#1]
859     \hspace*{-70pt}

```



```

860     }
861     {
862         \end{figure}
863         \captionsetup[figure]{font=nostarchfigfont,singlelinecheck=off,
864         aboveskip=8pt,belowskip=-8pt}
865     }

```

3.15 Verbatim and Listings Customization

Code This is for framed code:

```

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

```

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

```

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

```

We also enable verbatim footnotes.

```

868 \VerbatimFootnotes

```

3.16 Boxes and projects

Various boxes.

nspgray The color for boxes

```

869 \definecolor{nspgray}{cmyk}{0, 0, 0, 0.1}

```

And various mdframed styled boxes

```

870 \mdfdefinestyle{nspbox}{%
871     linecolor=black,
872     outerlinewidth=1pt,
873     roundcorner=5pt,
874     innertopmargin=\baselineskip,
875     innerbottommargin=\baselineskip,
876     innerrightmargin=18pt,
877     innerleftmargin=18pt,
878     backgroundcolor=nspgray,
879 }
880
881 \mdfdefinestyle{custombox}{%
882     linecolor=black,
883     outerlinewidth=1pt,
884     roundcorner=5pt,
885     innertopmargin=\baselineskip,
886     innerbottommargin=\baselineskip,
887     innerrightmargin=18pt,
888     innerleftmargin=18pt,
889 }
890 \newenvironment{nspbox}[1]
891 {\begin{mdframed}[style=nspbox]
892     \begin{center}
893     {\dogma \fontsize{9pt}{15pt} \MakeUppercase{\sobox{#1}}}
894     \end{center}
895     \begin{flushright}
896     \begin{flushleft}

```

```

897 \parskip=.5\baselineskip
898 \tbfont
899 }
900 {\end{flushleft}\end{flushright}
901 \end{mdframed}}
902 \newenvironment{nsbboxcontinued}
903 {\begin{mdframed}[style=nsbbox]
904 \begin{flushright}
905 \begin{flushleft}
906 \parskip=.5\baselineskip
907 \tbfont
908 }
909 {
910 \end{flushleft}
911 \end{flushright}
912 \end{mdframed}}
913 \newenvironment{custombox}[1]
914 {\begin{mdframed}[style=custombox]
915 \begin{center}
916 {\dogma \fontsize{9pt}{15pt} \MakeUppercase{\sobox{#1}}}
917 \end{center}
918 \begin{flushright}
919 \begin{flushleft}
920 \parskip=.5\baselineskip
921 \tbfont
922 }
923 {\end{flushleft}\end{flushright}
924 \end{mdframed}}
925
926 \newenvironment{customboxcontinued}
927 {\begin{mdframed}[style=custombox]
928 \begin{flushright}
929 \begin{flushleft}
930 \parskip=.5\baselineskip
931 \tbfont
932 }
933 {
934 \end{flushleft}
935 \end{flushright}
936 \end{mdframed}}
937
938 \newcommand{\continued}[0]{%
939 {\begin{flushright}%
940 \emph{(continued)}%
941 \end{flushright}}%
942 }

Project stuff
943 \newcounter{project}
944 \stepcounter{project}
945 \newcommand{\projecthead}[1]{
946 \vspace{16pt}%
947 \noindent%
948 \hspace{-.75in}%
949 \addcontentsline{toc}{boldsection}{Project~\#\theproject: #1}%

```

```

950     {\sffamily\bfseries\fontsize{12pt}{16pt}\selectfont
951       \colorbox{black}{\textcolor{white}{Project~\#\theproject: #1}}}%
952   \vspace{6pt}%
953   \@afterindentfalse\@afterheading%
954   \refstepcounter{project}%
955 }

```

3.17 Margin notes

Filenames on margins

```

956 \renewcommand*{\marginfont}{\sffamily\itshape\fontsize{8.5}{10}\selectfont}
957 \renewcommand*{\marginnotevadjust}{-\baselineskip}
958 \newcommand{\marginwingding}[1]{\{\fontsize{10pt}{12pt}\selectfont \wingding{#1}\}}

```

Code below makes the margin note always on the left, taken from: <https://tex.stackexchange.com/questions/472728/marginnote-always-on-left-side-of-the-page>

```

959 \long\def\@mn@@@marginnote[#1]#2[#3]{%
960   \begingroup
961     \ifmmode\mn@strut\let\@tempa\mn@vadjust\else
962       \if@inlabel\leavevmode\fi
963       \ifhmode\mn@strut\let\@tempa\mn@vadjust\else\let\@tempa\mn@vlap\fi
964     \fi
965     \@tempa{%
966       \vbox to\z@{%
967         \vss
968         \@mn@margintest
969         \if@reversemargin\if@tempswa
970           \@tempswafalse
971         \else
972           \@tempswatrue
973         \fi\fi
974
975         \llap{%
976           \vbox to\z@{\kern\marginnotevadjust\kern #3
977             \vbox to\z@{%
978               \hsize\marginparwidth
979               \linewidth\hsize
980               \kern-\parskip
981               %\mn@parboxrestore
982               \marginfont\raggedleftmarginnote\strut\hspace{\z@}%
983               \ignorespaces#1\endgraf
984             \vss
985           }%
986         \vss
987       }%
988       \if@mn@verbose
989         \PackageInfo{marginnote}{xpos seems to be \@mn@currxpos}%
990       \fi
991       \begingroup
992         \ifx\@mn@currxpos\relax\else\ifx\@mn@currpos\@empty\else
993           \kern\@mn@currxpos
994         \fi\fi
995         \ifx\@mn@currpage\relax
996           \let\@mn@currpage\@ne

```

```

997         \fi
998         \if@twoside\ifodd\@mn@currpage\relax
999             \kern-\oddsidemargin
1000         \else
1001             \kern-\evensidemargin
1002         \fi
1003     \else
1004         \kern-\oddsidemargin
1005     \fi
1006     \kern-1in
1007 \endgroup
1008 \kern\marginparsep
1009 }%
1010 }%
1011 }%
1012 \endgroup
1013 }

```

3.18 Bibliography

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

```

1014 \AtBeginDocument{
1015   \def\bibsection{%
1016     \clearpage
1017     {\pagestyle{empty}\cleardoublepage}%
1018     \everypar{}%
1019     \thispagestyle{empty}%
1020     \global\@topnum\z@
1021     \@afterindentfalse
1022     \gdef\@chapterart{}%
1023     \@nschapterpreamble
1024     \vspace*{0.622in}%
1025     \addcontentsline{toc}{chapter}{\MakeUppercase{\bibname}}%
1026     \addcontentsline{toc}{chapter}{\bibname}%
1027     {\centering
1028      {\dogma\fontsize{16pt}{20pt}\selectfont
1029       \MakeUppercase{\sochapter{\bibname}}\par}}\nobreak\vskip25pt\relax%
1030     \@mkboth{\bibname}{\bibname}}%

```

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

```

1031 \renewenvironment{thebibliography}[1]{%
1032   \bibsection
1033   \list{\@biblabel{\@arabic\c@enumiv}}%
1034     {\settowidth\labelwidth{\@biblabel{#1}}%
1035      \leftmargin\labelwidth
1036      \advance\leftmargin\labelsep
1037      \@openbib@code
1038      \usecounter{enumiv}%
1039      \let\p@enumiv\@empty
1040      \renewcommand\theenumiv{\@arabic\c@enumiv}}%
1041   \sloppy
1042   \clubpenalty4000

```

```

1043      \@clubpenalty \clubpenalty
1044      \widowpenalty4000%
1045      \sfcode`\.\@m}
1046      {\def\@noitemerr
1047       {\@latex@warning{Empty `thebibliography' environment}}}%
1048      \endlist}

```

3.19 Index

`\term` An indexed term

```
1049 \newcommand{\term}[1]{\emph{#1}\index{#1}}
```

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

```

1050 \renewenvironment{theindex}{%
1051   \clearpage
1052   {\pagestyle{empty}\cleardoublepage}%
1053   \everypar{}%
1054   \thispagestyle{empty}%
1055   \global\@topnum\z@
1056   \@afterindentfalse
1057   \gdef\@chapterart{}%
1058   \if@twocolumn
1059     \@restonecolfalse
1060   \else
1061     \@restonecoltrue
1062   \fi
1063   \twocolumn[%
1064     \nschapterpreamble
1065     \vspace*{0.622in}%
1066     \addcontentsline{toc}{chapter}{\MakeUppercase{\indexname}}}%
1067     \addcontentsline{toc}{chapter}{\indexname}%
1068     {\centering
1069      {\dogma%
1070       \fontsize{16pt}{20pt}\selectfont
1071       \MakeUppercase{\sochapter{\indexname}}\par}}}%
1072     \nobreak\vskip25pt\relax}%
1073     \@mkboth{\indexname}%
1074     {\indexname}%
1075     \parindent\z@
1076     \parskip\z@ \@plus .3\p@\relax
1077     \columnseprule \z@
1078     \columnsep 0.25in%
1079     \let\item\@idxitem}
1080 {\if@restonecol\onecolumn\else\clearpage\fi}

```

`\@idxitem` This is how we format level 1 index entries:

```

1081 \renewcommand\@idxitem{%
1082   \par\hangindent0.45in\normalfont\fontsize{9.5\p@}{11.5\p@}\selectfont
1083   \raggedright}

```

`\subitem` Level 2 entries:

```
1084 \renewcommand\subitem{\@idxitem \hspace*{0.15in}}
```

`\subsubitem` Level 3 entries:

```
1085 \renewcommand\subsubitem{\@idxitem \hspace*{0.3in}}
```

`\indexspace` The space between the groups

```
1086 \renewcommand\indexspace{\par \vskip 14\p@\relax}
```

`\indexgroup` When an index starts a new letter, we call this macro:

```
1087 \newcommand\indexgroup[1]{\{\futura boldc
1088 \fontseries{bc}\fontsize{11\p@}{13\p@}\selectfont#1\par\vskip4\p@}
```

3.20 Update Page and Colophon

`\updatesname` Just the name for updates:

```
1089 \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:

```
1090 \newcommand\updatespage{%
1091 \clearpage
1092 {\pagestyle{empty}\cleardoublepage}%
1093 \everypar{}%
1094 \thispagestyle{empty}%
1095 \global\@topnum\z@
1096 \gdef\@chapterart{}%
1097 \vspace*{1.875in}%
1098 {\centering
1099 \dogma%
1100 \fontsize{16pt}{20pt}\selectfont
1101 \MakeUppercase{\sochapter{\updatesname}}\par\nobreak\vskip40\p@}%
1102 \@nobreaktrue
1103 \everypar{%
1104 \if@nobreak
1105 \@nobreakfalse
1106 \clubpenalty \@M
1107 \setbox\z@\lastbox
1108 \else
1109 \clubpenalty \@clubpenalty
1110 \everypar{}%
1111 \fi}}
```

`\colophonname` Just the name for colophon:

```
1112 \def\colophonname{Colophon}
```

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

```
1113 \newcommand\colophon{%
1114 \everypar{}%
1115 \global\@topnum\z@
1116 \gdef\@chapterart{}%
1117 \vspace*{0.875in}%
1118 %{\centering
1119 %\dogma%
1120 % \fontsize{16pt}{20pt}\selectfont
1121 %\MakeUppercase{\sochapter{\colophonname}}\par\nobreak\vskip40\p@}%
```

```

1122 \@nobreaktrue
1123 \everypar{%
1124     \if@nobreak
1125     \@nobreakfalse
1126     \clubpenalty \@M
1127     \setbox\z@\lastbox
1128     \else
1129     \clubpenalty \@clubpenalty
1130     \everypar{}%
1131     \fi}\par
1132 The fonts used in \emph{\@title} are New Baskerville, Futura, The
1133 Sans Mono Condensed, and Dogma. The book was typeset with
1134 \LaTeXe{} package
1135 \texttt{nostarch} by Boris Veytsman with many additions by Alex
1136 Freed and other members of the \emph{No Starch Press} team
1137 \emph{(\csname ver@nostarch.cls\endcsname).}\par}

```

3.21 End of Class

```
1138 \endclass
```

3.22 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:

```

1139 \nshyper
1140 \RequirePackage[breaklinks,colorlinks,linkcolor=black,
1141     citecolor=black,pagecolor=black,urlcolor=black,hyperindex,
1142     bookmarks=false]{hyperref}

```

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

```

1143 \AtBeginDocument{%
1144     \def\@schapter[#1]#2{%
1145         \H@old@schapter[#1]{#2}%
1146         \@schapterpreamble}%
1147     \def\@spart[#1]#2{%
1148         \H@old@spart[#1]{#2}%
1149         \Hy@GlobalStepCount\Hy@linkcounter
1150         \xdef\@currentHref{part*.\the\Hy@linkcounter}%
1151         \Hy@raisedlink{\hyper@anchorstart{\@currentHref}\hyper@anchorend}}}%

```

We change the preamble for bibliography and index:

```

1152 \def\@schapterpreamble{%
1153     \begingroup
1154     \let\@mkboth\@gobbletwo
1155     \Hy@GlobalStepCount\Hy@linkcounter
1156     \xdef\@currentHref{\Hy@chapapp*.\the\Hy@linkcounter}%
1157     \Hy@raisedlink{\hyper@anchorstart{\@currentHref}\hyper@anchorend}%
1158     \endgroup}

```

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

```

1159 \let\@old@maketitle\maketitle
1160 \def\maketitle{%
1161     \hypersetup{pdfauthor=\@author, pdftitle=\@title}%

```

```
1162 \ns@old@maketitle}
1163 </nshyper>
```

3.23 MakeIndex Style File

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

```
1164 <*ist>
1165 lethead_prefix    "\\indexgroup{"
1166 lethead_suffix    "}\\nopagebreak\\n"
1167 lethead_flag      1
1168 heading_prefix    "\\indexgroup{"
1169 heading_suffix    "}\\nopagebreak\\n"
1170 headings_flag     1
1171 </ist>
```


References

- [1] UK T_EX Users Group. UK list of T_EX frequently asked questions. <http://www.tex.ac.uk/cgi-bin/texfaq2html>, 2006.
- [2] Sebastian Rahtz and Heiko Oberdiek. *Hypertext Marks in L^AT_EX: a Manual for Hyperref*, September 2006. <http://ctan.tug.org/tex-archive/macros/latex/contrib/hyperref>.
- [3] Leslie Lamport. *L^AT_EX: a Document Preparation System*. Addison-Wesley Publishing Company, Reading, Ma., 2 edition, 1994. Illustrations by Duane Bibby.
- [4] Simon Fear. *Publication Quality Tables in L^AT_EX*, April 2005. <http://ctan.tug.org/tex-archive/macros/latex/contrib/booktabs>.
- [5] Timothy Van Zandt. *The ‘fancyvrb’ Package. Fancy Verbatims in L^AT_EX*, July 1998. <http://ctan.tug.org/tex-archive/macros/latex/contrib/fancyvrb>.
- [6] Carsten Heinz and Brooks Moses. *The Listings Package*, 2007. <http://ctan.tug.org/tex-archive/macros/latex/contrib/listings>.
- [7] Patrick W. Daly. *Natural Sciences Citations and References (Author-Year and Numerical Schemes)*, February 2007. <http://ctan.tug.org/tex-archive/macros/latex/contrib/natbib>.
- [8] Peter Wilson. *The Memoir Class for Configurable Typesetting*, January 2004. <http://ctan.tug.org/tex-archive/macros/latex/contrib/memoir>.
- [9] Leslie Lamport, Frank Mittelbach, and Johannes Braams. *Standard Document Classes for L^AT_EX version 2_ε*, 1997. <http://ctan.tug.org/tex-archive/macros/latex/base>.
- [10] Piet van Oostrum. *Page Layout in L^AT_EX*, March 2004. <http://ctan.tug.org/tex-archive/macros/latex/contrib/fancyhdr>.

Change History

v0.1		<code>\nostarchlocation</code> : Introduced the macro	17
	General: First fully functional version	<code>\nostarchlogo</code> : Introduced the macro	17
v0.2		<code>copyrightpage</code> : Introduced the macro	18
	<code>\@chapter</code> : Moved up	<code>\part</code> : Changed LaTeX default . .	23
	<code>enumerate</code> : Flush left numbers . .	<code>\subtitle</code> : Introduced the macro	17
	<code>itemize</code> : Flush left bullets	<code>\tableofcontents</code> : Changed LaTeX default	20
	<code>\topmargin</code> : Moved down	v0.6	
v0.3		General: Added MakeIndex style . .	40
	<code>\@afterheading</code> : Moved the circle art	Documentation update	3
	<code>\@footnotetext</code> : Changed LaTeX default	Introduced package <code>nshyper</code> . . .	39
	<code>\clubpenalty</code> : Changed settings .	<code>\@chapter</code> : Reverted to standard interface	24
	<code>\footins</code> : Changed LaTeX defaults	<code>\@idxtitem</code> : Changed default	37
	<code>\footnoterule</code> : Increased kern above the rule	<code>\@schapter</code> : Reverted to standard interface	25
	<code>\section</code> : Changed indentation . .	<code>\backmatter</code> : Changed LaTeX default	22
v0.4		<code>\bibsection</code> : Introduced the macro	36
	<code>\@afterheading</code> : Added special treatment for the case of empty chapter art	<code>\chapter</code> : Reverted to standard interface	24
v0.5		<code>\chapterart</code> : Introduced the command	26
	General: Documentation update . .	<code>\chapterartfile</code> : Introduced the command	27
	<code>\@endpart</code> : Changed LaTeX default	<code>\colophon</code> : Introduced the macro	38
	<code>\@nostarchlocation</code> : Introduced the macro	<code>\colophonname</code> : Introduced the macro	38
	<code>\@nostarchlogo</code> : Introduced the macro	<code>thebibliography</code> : Introduced the macro	36
	<code>\@part</code> : Changed LaTeX default . .	<code>theindex</code> : Introduced the macro . .	37
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	<code>maketitle</code> : Changed LaTeX default	<code>\l@bchapter</code> : Introduced macro . .	22
	<code>\brieftableofcontents</code> : Introduced macro	<code>\l@bpart</code> : Introduced macro	22
	<code>dedicationpage</code> : Introduced the macro	<code>\mainmatter</code> : Changed LaTeX default	22
	<code>cipblock</code> : Introduced the macro . .	<code>\secdef</code> : Changed LaTeX default	23
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	<code>\makehalftitle</code> : Introduced the macro		

v0.7		\l@section: Made number width user setttable 21
\@afterheading: Changed		\l@subsection: Made number width user setttable 21
dimensions 25		\sectionnumberwidth: Introduced the length 21
\@dotsep: Changed LaTeX default 20		\subsectionnumberwidth: Introduced the length 21
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General: Added interface to listings package and upquote package.		\ifnostarch@fontsdire: Introduced macro 11
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