Beezer's FCLA

[Front matter

[Chapter A

[Chapter B

⋮

[Appendices

   [Appendix A

   [Appendix B

   ⋮

These brackets indicate blocks which contain multiple components. Each block is described on a separate sheet.

At the top level, the book is mostly a succession of chapters. All you need to do is add or rearrange chapters.

Implicit dependencies *

How to write down the dependency graph in advance?

Chapter | Acronym | Chapter title

Intro

The "components" of a Chapter.

Other blocks contained within a chapter.

Section

Section

Except for some identifying material and an introduction, a Chapter is just a succession of Sections.

Rob puts exercises at the end of each Section, not at the end of the Chapter.

Exercises

Section [Acronym] [Section title]

[Intro]

[Theorem][Definition][Example][Textblock][Subsection]

.
.
.

[Reading Question

[Exercises

All sections start in a particular way and end in a particular way. In between there are 5 types of blocks which can occur -- any number of them in any order.

A block exists as a unit. When you move or rearrange items in a document, it is a block that you are moving. It makes no sense to move only one component of a block, or to export part of a block to another document (unless it is a block itself).

However, edit-in-place for each component would be nice.

belongs to a chapter

Theorem

Preamble

Theorem [Acronym] [Theorem title

Statement

Proof

The proof

Postscript

In Rob's book, proofs always immediately follow
the statement of a theorem. Other books (at least
occasionally) separate the proof from the statement.
Also, other books tend to have lemmas, propositions,
and corollaries. Allowing other theorem-like blocks
is easy: just have theorem/lemma/proposition/corollary
as one of the parameters of the block.
Separating the proof from the theorem takes more thought.

belongs to a section or
subsection

Definition

Preamble

Definition [Acronym] Definition title

The definition.
(use \term{the term})

Postscript

belongs to a section
or subsection

Preamble

Example [Acronym] [Example title

The example

Postscript

belongs to a section
or subsection

Hidden title/name

A block of text

This is not really part of Rob's structure, but I have attached a hidden property to a block of text. The idea is that a several pages of straight text may actually cover a few different ideas. By grouping the material into a few separate text blocks (which have descriptive names), organizing, editing, and rearranging is easier. So, a text block could contain more than one paragraph.

If you look at Rob's Section PEE, after the Proof of Theorem HMRE there is a postscript followed by two paragraphs. Those are TWO text blocks. I leave it as an exercise to determine reasonable descriptions for them.

Hidden title/name

belongs to a section, subsection, ---

Subsection [Acronym] [Subsection title

Intro

[Theorem || Definition || Example || Textblock

Reading questions

[question
[question
[question
  .
  .
  .

[question

[number] | Statement

Exercises

[Exercise || Textblock

(R.)

Exercises

Exercise
Exercise
Exercise
Text
Exercise
⋮

Rob actually has something like subsections in his exercise section, for exercises with a similar theme. I haven't actually processed Rob's exercise sections yet, so I got that wrong when I wrote this page.

Type : [C M T]   Number : ☐

Contributed by : [   ]   ☐ Me

Statement

~~Answer~~ Solution

~~Answer~~ Solution

Rob has 3 types of exercises: C, M, and T.
He numbers them with human-generated numbers
(not sequentially) because he wants permanent
numbers across editions. So there are gaps which
can be filled later.

Note also that he has "solutions," not "answers."

I don't know if Rob uses identifiers or name-strings
for the "contributed by" field. Identifiers would be
better.

belongs to a section