

# Crowbook User Guide



# Crowbook User Guide

Élisabeth Henry

0.10.5

18th of december, 2016



# Chapter 1

## Crowbook

Render a book written in markdown to HTML, EPUB and/or PDF.

Crowbook's purpose is to allow you to automatically generate multiple output formats from a book written in Markdown. Its focus is novels, and the default settings should (hopefully) generate readable books with correct typography without requiring you to worry about it.

### 1.1 Example

To see what Crowbook's output looks like, you can read the Crowbook guide rendered in [HTML](#), [PDF](#) or [EPUB](#).

You can also play with the [online demo version](#).

### 1.2 Installing

There are two ways to install Crowbook:

#### Binaries

See [the releases page](#) to download a precompiled binary for your architecture (currently: Linux, Windows and MacOSX). Just extract the archive and run `crowbook` (or `crowbook.exe` on Windows). You might also want to copy the binary somewhere in your `PATH` for later usage.

If you are on Debian GNU/Linux or Ubuntu (on a PC architecture), you can also download `.deb` packages on [the releases page](#).

## Using Cargo

Cargo is the Rust's package manager. You can [install it here](#). Once it is done:

```
$ cargo install crowbook
```

will automatically download the latest **crowbook** release on [crates.io](#), compile it, and install it on your system.

## 1.3 Dependencies

While there should be, strictly speaking, no real dependencies to be able to run Crowbook (it is published as a statically compiled binary), some features require additional commands to work correctly:

- EPUB rendering requires the **zip** command to be present on your system;
- PDF rendering requires a working installation of LaTeX (preferably **xelatex**).

## 1.4 Quick tour

The simplest command is:

```
$ crowbook <BOOK>
```

where **BOOK** is a configuration file. Crowbook will parse this file and generate a book in HTML, EPUB, and/or PDF, according to the settings in the configuration file.

To create a new book, assuming you have a list of Markdown files, you can generate a template configuration file with the **--create** argument:

```
$ crowbook my.book --create chapter_*.md
```

This will generate a default **my.book** file, which you'll need to complete. This configuration file contains some metadata, options, and lists the Markdown files.

For short books containing only a single Markdown file, it is possible to embed some metadata at the beginning of the file and use the **--single** or **-s** option to run **crowbook** directly on this Markdown file and avoid creating a separate book configuration file:

```
$ crowbook -s text.md
```

For more information see the chapters on [the arguments supported by crowbook](#) and on [the configuration file](#).

## 1.5 Current features

### Output formats

Crowbook supports HTML, PDF and EPUB (either version 2 or 3) as output formats. See the Crowbook User Guide rendered in [HTML](#), [EPUB](#) and [PDF](#).

### Input format

Crowbook uses [pulldown-cmark](#) and thus should support most of [CommonMark Markdown](#). Inline HTML, however, is not implemented, and probably won't be, as the goal is to have books that can also be generated in PDF (and maybe ODT).

### Typographic “cleaning”

Maybe the most specific “feature” of Crowbook is that (by default, it can be deactivated) it tries to “clean” the input files. By default, it removes superfluous spaces and tries to use curly quotes. If the book's language is set to french, it also tries its best to respect french typography by replacing spaces with non-breaking ones when it is appropriate (e.g. before ‘?’, ‘!’, ‘;’ or ‘:’).

Please [open an issue](#) describing typographic rules if you want it to be implemented for other languages.

### Links handling

Crowbook tries to correctly translate local links in the input Markdown files: e.g. if you have a link to a Markdown file that is part of your book, it will be transformed into a link inside the document.

### Inline YAML blocks

Crowbook supports inline YAML blocks:

```
---
author: Me
title: My title
---
```

This is mostly useful when Crowbook is run with the `--single` argument (receiving a single Markdown file instead of a book configuration file), for short texts that only contain one “chapter”.

## Proofreading

Crowbook can also generate “proofreading” copies in HTML or PDF, highlighting grammar errors and repetitions.

This feature has been introduced in version 0.9.1 and is still experimental. For more information, see [the proofreading chapter of the guide](#).

## Bugs

See the [github’s issue tracker](#).

## 1.6 Contributors

- [Stéphane Mourey](#) <s+crowbook AT stephanemourey DOT fr>

## 1.7 Acknowledgements

Besides the [Rust](#) compiler and standard library, Crowbook uses the following libraries:

- [pulldown-cmark](#)
- [yaml-rust](#)
- [mustache](#)
- [clap](#)
- [chrono](#)
- [uuid](#)



- [mime\\_guess](#)
- [crossbeam](#)
- [walkdir](#)
- [rustc-serialize](#)
- [caribon](#)
- [hyper](#)
- [url](#)
- [lazy\\_static](#)
- [regex](#)
- [term](#)

It also embeds [Highlight.js](#) in HTML output to enable syntax highlighting for code blocks.

It also uses configuration files from [rust-everywhere](#) to use [Travis](#) and [Appveyor](#) to generate binaries for various platforms on each release.

While Crowbook directly doesn't use them, there was also inspiration from [Pandoc](#) and [mdBook](#).

Also, the [W3C HTML validator](#) and the [IDPF EPUB validator](#) proved very useful during development.

## 1.8 ChangeLog

See [ChangeLog](#).

## 1.9 Contributing

See [how you can contribute to Crowbook](#).

## 1.10 Library

While the main purpose of Crowbook is to be run as a standalone program, the code is written as a library, so if you want to build on it you can use it as such. You can look at the generated documentation on [docs.rs](#).

Note that, in order to facilitate code reuse, some features have been split to separate libraries:

- **crowbook-text-processing** contains all the “typographic” functions (smart quotes, handling of non-breaking spaces in french, ...).
- **crowbook-intl** is used for the internationalization (translation) process.

## 1.11 License

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# Chapter 2

## Arguments

Crowbook can take a number of arguments:

Render a Markdown book in EPUB, PDF or HTML.

### USAGE:

```
crowbook [OPTIONS] [--] [BOOK]
```

### FLAGS:

-h, --help	Print help information
-l, --list-options	List all possible options
-p, --proofread	Enable proofreading
-q, --quiet	Don't print info/error messages
-s, --single	Use a single Markdown file instead of a book configuration file
-v, --verbose	Print warnings in parsing/rendering
-V, --version	Print version information

### OPTIONS:

-c, --create <FILES>...	Create a new book with existing Markdown files
-o, --output <FILE>	Specify output file
--print-template <TEMPLATE>	Prints the default content of a template
--set <KEY_VALUES>	Set a list of book options
-t, --to <FORMAT>	Generate specific format

ARGS:

<BOOK> File containing the book configuration file,  
or a Markdown file when called with `--single`

Note that Crowbook generates output files relatively to the directory where <BOOK> is:

```
$ crowbook foo/bar.book --to pdf --output baz.pdf
```

will thus generate “baz.pdf” in directory “foo” and not in the current directory.

The most important option is obviously <BOOK>, i.e. the book configuration file. It is mandatory in most cases: if you don’t pass it, Crowbook will simply display this help message. In a normal use case this is the only argument you’ll need to pass, and Crowbook will generate the book in all formats specified in the configuration file.

It is, however, possible to pass more arguments to `crowbook`:

## 2.1 --create

Usage: `crowbook [BOOK] --create file_1.md file_2.md ...`

Creates a new book from a list of Markdown files. It will generate a book configuration file with all file names specified as chapters. It either prints the result to stdout (if `BOOK` is not specified) or generate the file `BOOK` (or abort if it already exists).

## Examples

```
crowbook foo.book --create README.md ChangeLog.md LICENSE.md
```

will generate a file `foo.book` containing:

```
author: Your name
title: Your title
lang: en
```

```
# Uncomment and fill to generate files
# output.html: some_file.html
# output.epub: some_file.epub
# output.pdf: some_file.pdf
```

```
# Uncomment and fill to set cover image (for Epub)
# cover: some_cover.png
```

```
# List of chapters
+ README.md
+ ChangeLog.md
+ LICENSE.md
```

```
while
```

```
crowbook --create README.md ChangeLog.md LICENSE.md
```

will print the same result, but to stdout (without creating a file).

When `crowbook` is runned with `--create`, it can also use the keys/values set by `--set` (see below):

```
$ crowbook foo.book --create file1.md file2.md --set author
"Pierre Dupont" title "Mon œuvre" lang fr
```

will generate a `foo.book` file containing:

```
author: Pierre Dupont
title: Mon œuvre
lang: fr
```

```
# List of chapters
+ file1.md
+ file2.md
```

## 2.2 --single

**usage:** `crowbook --single <FILE>`  
(or `crowbook -s <FILE>`)

This argument allows to give `crowbook` a single Markdown file. This file can contain an inline YAML block to set some book options. Inline YAML blocks must start and end with a line with `---` (three dashes). E.g:

```
---
author: Joan Doe
title: A short story
```

```
output.html: short.html
---
```

If this YAML block is not at the beginning of a file, it must also be preceded by a blank line.

This allows to not have to write a `.book` configuration file for a short story or an article. `crowbook --single foo.md` is roughly equivalent to having a book configuration file containing:

```
! foo.md
```

That is, the chapter heading (if any) won't be displayed in the output documents (though they still appear in the TOC).

Note that by default, using `--single` sets the default LaTeX class of the book to `article` instead of `book`.

## 2.3 --set

**usage:** `crowbook <BOOK> --set [KEY] [VALUE]...`

This argument takes a list of `KEY VALUE` pairs and allows setting or overriding a book configuration option. All valid options in the configuration files are valid as keys. For more information, see [the configuration file](#).

### Examples

```
$ crowbook foo.book --set html.css style.css
```

will override the CSS for HTML generation (the `html.css` key) to the file `style.css`.

```
$ crowbook foo.book --set author Foo title Bar
```

will override the book title to `Bar` and its author to `Foo`.

## 2.4 --proofread

Equivalent to `--set proofread true`. Enable proofreading. See [Proofreading](#).



## 2.5 --list-options

**usage:** crowbook --list-options  
(or crowbook -l)

Displays all the valid options to use, whether in a book configuration file, with --set, or in an inline YAML block.

## 2.6 --print-template

**usage:** crowbook --print-template template

Prints the built-in template to stdout. Useful if you want to customize the appearance of your document. E.g., if you want to modify the CSS used for HTML rendering:

```
$ crowbook --print-template html.css > my_style.css
# edit my_style.css in your favourite editor
$ crowbook my.book --set html.css my_style.css
# or add "html.css: my_style.css" in my.book
```

Note that it is possible to use this option in conjunction with --set, though it is currently only useful for EPUB template:

```
$ crowbook --print-template epub.template --set epub.version
2
# Returns the template for Epub 2 (currently it is the
default one)
$ crowbook --print-template epub.template --set epub.version
3
# Returns the template for Epub 3
```

## 2.7 --verbose

**usage:** crowbook <BOOK> --verbose

If this flag is set, Crowbook will print the warnings it detects while parsing and rendering. These warnings are typically related to the inclusion of non-local images, linking to Markdown files that are not part of the book, and so on.

## 2.8 --to

**usage:** crowbook <BOOK>--to [FORMAT]  
(or crowbook <BOOK> -t [FORMAT])

Generate only the specified format. **FORMAT** must be either **epub**, **pdf**, **html**, **odt** or **tex**.

If an output file for the format is not specified in the book configuration file, **crowbook** will fail to render PDF, ODT and EPUB, whereas it will print HTML and TeX files on stdout. It is, however, possible to specify a file with the **--output** option.

## Examples

```
crowbook --to html foo.book
```

will generate some HTML, and prints it either to the file specified by **output.html** in **foo.book**, or to stdout if it is not specified.

```
crowbook --to pdf --output foo.pdf foo.book
```

will generate a **foo.pdf** file.

## 2.9 --output

**usage:** crowbook <BOOK> --to <FORMAT> --output <FILE>  
(or crowbook -t <FORMAT> -o <FILE> <BOOK>)

Specifies an output file. Only valid when **--to** is used.

Note that Crowbook generates output files relatively to the directory where **BOOK** is (unless the option **output.base\_path** is set):

```
$ crowbook foo/bar.book --to pdf --output baz.pdf
```

will thus generate **baz.pdf** in directory **foo** and not in current directory.

## 2.10 --lang

**usage:** crowbook --lang <LANG>  
(or crowbook -L <LANG>)

Set the runtime language used by Crowbook. Currently, only a french translation is available. By default, Crowbook uses the **LANG** environment variable to determine which language to use, but this option

allows to override it (e.g. for operating systems that don't use such an option, such as Windows).

## Example

```
$ crowbook --lang fr --help
```

will display Crowbook's help messages in french.

Note that this argument has nothing to do with the `lang` option that you can set in the book configuration file, which specifies the language *of the book*. This argument specifies the language of the text messages that Crowbook will display while running.



## Chapter 3

# The configuration file

If you want to use Crowbook for your book, this configuration file is all you'll have to add (assuming you already have the book in Markdown files; if you don't, you'll also have to write a book first, but that's besides the scope of this document).

The format is not very complicated. This is an example of it:

```
# metadata
author: Joan Doe
title: Some book
lang: en

output.html: some_book.html

# list of chapters
- preface.md
+ chapter_1.md
+ chapter_2.md
+ chapter_3.md
+ chapter_4.md
- epilogue.md
```

Basically, it is divided in two parts:

- a list of options, under the form `key: value`, following YAML syntax.
- a list of Markdown files.

Lines starting with the `#` characters are comments and are discarded.

### 3.1 Configuration in an inline YAML block (`crowbook --single`)

Sometimes, you only have one Markdown file and might not want to have a separate configuration file. In this case, you can specify options at the beginning of your Markdown file, using an inline YAML block, separated by two lines containing only `---`:

```
---
author: Joan Doe
title: Some (short) book
lang: en

output.html: some_book.html
---
```

```
# Some (short) book
```

The book content, formatted in Markdown.

This method only allows to set up options: you can't include a list of chapters in this way, since the only “chapter” that will be included is this Markdown file itself.

You can then use

```
crowbook --single some_book.md
```

to generate output formats from this Markdown file.

By default (unless `input.yaml_blocks` is set to true), Crowboook will only read those inline blocks when it is runned with `crowbook --single` (or `crowbook -s`).

### 3.2 The list of files

There are various options to include a Markdown file.

- `+ file_name.md` includes a numbered chapter.
- `- file_name.md` includes an unnumbered chapter.

- `! file_name.md` includes a chapter whose title won't be displayed (except in the table of contents); this is useful for e.g. including a copyright at the beginning of the book, or for short stories where there is only one chapter.
- `42. file_name.md` specifies the number for a chapter.

So a typical usage might look like this:

```
! copyright.md
- preface.md
0. chapter_0.md # We want to start at chapter 0 instead of
1
# Next chapters can be numbered automatically
+ chapter_1.md
+ chapter_2.md
...
```

There are two important things to note:

1. you must *not* use quotes around the file names.
2. the path of these files are relative to the directory where your configuration file is. This means you can run `crowbook books/my_trilogy/fir` without being in the book's directory.

Also note that you don't have to specify a title. This is because the title of the chapter is inferred from the Markdown document. To go back to our previous example:

```
+ chapter_1.md
```

does not specify a chapter title, because it will read it directly in `chapter_1.md`, e.g.:

```
The day I was born
```

```
=====
```

```
...
```

You should have one and only one level-one header (i.e. chapter title) in each markdown file.

If you have more than one, Crowbook will print a warning and treat it as another chapter (numbered according to the scheme specified for

including the file). It might however mess the table of contents in some cases (e.g. for Epub).

If you do *not* have a level-1 header in a markdown file:

- if it is a numbered chapter, Crowbook will infer a chapter name from the numbering scheme;
- if it is not numbered, chapter's title will default to the empty string and won't be displayed in the TOC.

### 3.3 Crowbook options

The first part of the configuration file is dedicated to pass options to Crowbook. This is **YAML syntax**, so each line should be of the form `key: value`. Note that in most cases you don't have to put string in quotes, e.g.:

```
title: My title
```

It is however possible (and sometimes necessary) to escape some characters to use quotes around strings:

```
title: "My: title!"
```

It is possible to use multiline strings with `>-` and then indenting the lines that are part of the string:

```
title: >-
  A
  long
  title
author: Joan Doe
```

will set `title` to `"A long title"`. See **block literals in YAML** for more information on the various way to insert multiline strings (which mostly change the way newlines will or won't be inserted).

A final note on the syntax: all options must be set *before* the first chapter inclusion (that is, a line beginning with `'+'`, `'-'`, `'x.'` (where `x` is a number) or `'!'`).

Here is the complete list of options, with a short description. The usage of some of them is detailed later on.



## Metadata

- **author**
  - **type:** metadata
  - **default value:** ""
  - Author of the book
- **title**
  - **type:** metadata
  - **default value:** ""
  - Title of the book
- **lang**
  - **type:** metadata
  - **default value:** en
  - Language of the book
- **subject**
  - **type:** metadata
  - **default value:** not set
  - Subject of the book (used for EPUB metadata)
- **description**
  - **type:** metadata
  - **default value:** not set
  - Description of the book (used for EPUB metadata)
- **cover**
  - **type:** path
  - **default value:** not set
  - Path to the cover of the book

## Additional metadata

- **license**
  - **type:** metadata
  - **default value:** not set
  - License of the book
- **version**
  - **type:** metadata
  - **default value:** not set
  - Version of the book
- **date**
  - **type:** metadata
  - **default value:** not set
  - Date the book was revised

## Output options

- **output.epub**
  - **type:** path
  - **default value:** not set
  - Output file name for EPUB rendering
- **output.html**
  - **type:** path
  - **default value:** not set
  - Output file name for HTML rendering
- **output.html\_dir**
  - **type:** path
  - **default value:** not set
  - Output directory name for HTML rendering
- **output.tex**

- **type:** path
- **default value:** not set
- Output file name for LaTeX rendering
- **output.pdf**
  - **type:** path
  - **default value:** not set
  - Output file name for PDF rendering
- **output.odt**
  - **type:** path
  - **default value:** not set
  - Output file name for ODT rendering
- **output.base\_path**
  - **type:** path
  - **default value:** ""
  - Directory where those output files will be written

## Rendering options

- **rendering.initials**
  - **type:** boolean
  - **default value:** false
  - Use initials (‘lettrines’) for first letter of a chapter (experimental)
- **rendering.inline\_toc**
  - **type:** boolean
  - **default value:** false
  - Display a table of content in the document
- **rendering.inline\_toc.name**
  - **type:** string
  - **default value:** "{{{loc\_toc}}}"

- Name of the table of contents if it is displayed in document
- **rendering.num\_depth**
  - **type:** integer
  - **default value:** 1
  - The maximum heading levels that should be numbered (0: no numbering, 1: only chapters, ..., 6: all)
- **rendering.chapter\_template**
  - **type:** string
  - **default value:** "{{{number}}}\. {{{chapter\_title}}}"
  - Naming scheme of chapters

## Special option

- **import\_config**
  - **type:** path
  - **default value:** not set
  - Import another book configuration file

## HTML options

- **html.icon**
  - **type:** path
  - **default value:** not set
  - Path to an icon to be used for the HTML files(s)
- **html.header**
  - **type:** string
  - **default value:** not set
  - Custom header to display at the beginning of html file(s)
- **html.footer**
  - **type:** string
  - **default value:** not set

- Custom footer to display at the end of HTML file(s)
- **html.css**
  - **type**: template path
  - **default value**: not set
  - Path of a stylesheet for HTML rendering
- **html.css.add**
  - **type**: string
  - **default value**: not set
  - Some inline CSS added to the stylesheet template
- **html.css.colours**
  - **type**: template path
  - **default value**: not set
  - Path of a stylesheet for the colours for HTML
- **html.js**
  - **type**: template path
  - **default value**: not set
  - Path of a javascript file
- **html.css.print**
  - **type**: template path
  - **default value**: not set
  - Path of a media print stylesheet for HTML rendering
- **html.highlight\_code**
  - **type**: boolean
  - **default value**: true
  - Provides syntax highlighting for code blocks (using highlight.js)
- **html.highlight.js**
  - **type**: template path

- **default value:** not set
- Set another highlight.js version than the bundled one
- **html.highlight.css**
  - **type:** template path
  - **default value:** not set
  - Set another highlight.js CSS theme than the default one
- **html.side\_notes**
  - **type:** boolean
  - **default value:** false
  - Display footnotes as side notes in HTML/Epub (experimental)
- **html.escape\_nb\_spaces**
  - **type:** boolean
  - **default value:** true
  - Replace unicode non breaking spaces with HTML entities and CSS

## Standalone HTML options

- **html\_single.one\_chapter**
  - **type:** boolean
  - **default value:** false
  - Display only one chapter at a time (with a button to display all)
- **html\_single.html**
  - **type:** template path
  - **default value:** not set
  - Path of an HTML template
- **html\_single.js**
  - **type:** template path
  - **default value:** not set
  - Path of a javascript file

## Multifile HTML options

- `html_dir.index.html`
  - **type:** template path
  - **default value:** not set
  - Path of index.html template
- `html_dir.chapter.html`
  - **type:** template path
  - **default value:** not set
  - Path of a chapter.html template

## EPUB options

- `epub.version`
  - **type:** integer
  - **default value:** 2
  - EPUB version to generate (2 or 3)
- `epub.css`
  - **type:** template path
  - **default value:** not set
  - Path of a stylesheet for EPUB
- `epub.css.add`
  - **type:** string
  - **default value:** not set
  - Inline CSS added to the EPUB stylesheet template
- `epub.chapter.xhtml`
  - **type:** template path
  - **default value:** not set
  - Path of an xhtml template for each chapter

## LaTeX options

- `tex.links_as_footnotes`
  - **type:** boolean
  - **default value:** true
  - Add footnotes to URL of links so they are readable when printed
- `tex.command`
  - **type:** string
  - **default value:** xelatex
  - LaTeX command to use for generating PDF
- `tex.template`
  - **type:** template path
  - **default value:** not set
  - Path of a LaTeX template file
- `tex.template.add`
  - **type:** string
  - **default value:** not set
  - Inline code added in the LaTeX template
- `tex.class`
  - **type:** string
  - **default value:** book
  - LaTeX class to use
- `tex.paper_size`
  - **type:** string
  - **default value:** a5paper
  - Specifies the size of the page.
- `tex.title`
  - **type:** boolean



- **default value:** `true`
- If `true`, generate a title with `maketitle`
- **`tex.font_size`**
  - **type:** integer
  - **default value:** `not set`
  - Specify latex font size (in pt, 10 (default), 11, or 12 are accepted)

## Resources option

- **`resources.files`**
  - **type:** string
  - **default value:** `not set`
  - Whitespace-separated list of files to embed in e.g. EPUB file; useful for including e.g. fonts
- **`resources.out_path`**
  - **type:** path
  - **default value:** `data`
  - Paths where additional resources should be copied in the EPUB file or HTML directory
- **`resources.base_path`**
  - **type:** path
  - **default value:** `not set`
  - Path where to find resources (in the source tree). By default, links and images are relative to the Markdown file. If this is set, it will be to this path.
- **`resources.base_path.links`**
  - **type:** path
  - **default value:** `not set`
  - Set base path but only for links. Useless if `resources.base_path` is set
- **`resources.base_path.images`**

- **type:** path
- **default value:** .
- Set base path but only for images. Useless if `resources.base_path` is set
- **`resources.base_path.files`**
  - **type:** path
  - **default value:** .
  - Set base path but only for additional files. Useless if `resources.base_path` is set.
- **`resources.base_path.templates`**
  - **type:** path
  - **default value:** .
  - Set base path but only for templates files. Useless if `resources.base_path` is set

## Input options

- **`input.clean`**
  - **type:** boolean
  - **default value:** true
  - Toggle typographic cleaning of input markdown according to lang
- **`input.clean.smart_quotes`**
  - **type:** boolean
  - **default value:** true
  - If enabled, tries to replace vertical quotations marks to curly ones
- **`input.clean.ligature.dashes`**
  - **type:** boolean
  - **default value:** false
  - If enabled, replaces ‘--’ to en dash (‘—’) and ‘---’ to em dash (‘—’)

- `input.clean.ligature.guillemets`
  - **type:** boolean
  - **default value:** false
  - If enabled, replaces ‘«’ and ‘»’ to french “guillemets” (’«’ and ’»’)
- `input.yaml_blocks`
  - **type:** boolean
  - **default value:** false
  - Enable inline YAML blocks to override options set in config file

## Crowbook options

- `crowbook.temp_dir`
  - **type:** path
  - **default value:** “
  - Path where to create a temporary directory (default: uses result from Rust’s `std::env::temp_dir()`)
- `crowbook.zip.command`
  - **type:** string
  - **default value:** zip
  - Command to use to zip files (for EPUB/ODT)
- `crowbook.verbose`
  - **type:** boolean
  - **default value:** false
  - Make Crowbook display more messages

## Output options (for proofreading)

- `output.proofread.html`
  - **type:** path
  - **default value:** not set

- Output file name for HTML rendering with proofread features
- **output.proofread.html\_dir**
  - **type:** path
  - **default value:** not set
  - Output directory name for HTML rendering with proofread features
- **output.proofread.pdf**
  - **type:** path
  - **default value:** not set
  - Output file name for PDF rendering with proofread features

## Proofreading options (only for **output.proofread.\*** targets)

- **proofread**
  - **type:** boolean
  - **default value:** false
  - If set to false, will disactivate proofreading even if one of **output.proofread.x** is present
- **proofread.nb\_spaces**
  - **type:** boolean
  - **default value:** true
  - Highlight non breaking spaces so it is easier to see if typography is correct
- **proofread.languagetool**
  - **type:** boolean
  - **default value:** false
  - If true, try to use language tool server to grammar check the book
- **proofread.languagetool.port**

- **type:** integer
- **default value:** 8081
- Port to connect to languagetool-server
- **proofread.repetitions**
  - **type:** boolean
  - **default value:** false
  - If set to true, use Caribon to detect repetitions
- **proofread.repetitions.max\_distance**
  - **type:** integer
  - **default value:** 25
  - Max distance between two occurrences so it is considered a repetition
- **proofread.repetitions.fuzzy**
  - **type:** boolean
  - **default value:** true
  - Enable fuzzy string matching
- **proofread.repetitions.fuzzy.threshold**
  - **type:** float
  - **default value:** 0.2
  - Max threshold of differences to consider two strings a repetition
- **proofread.repetitions.ignore\_proper**
  - **type:** boolean
  - **default value:** true
  - Ignore proper nouns for repetitions
- **proofread.repetitions.threshold**
  - **type:** float
  - **default value:** 2.0
  - Threshold to detect a repetition

Note that these options have a type, which in most case should be pretty straightforward (a boolean can be `true` or `false`, an integer must be composed by a number, a string is, well, any string). The `path` type might puzzle you a bit, but it's equivalent to a string, except Crowbook will consider it relatively to the book file. The `template` path type is just the `path` of a template. Metadata are just strings.

## Metadata

Metadata are data about the book. Except for `cover`, which points to an image file, all its fields are strings. The main metadata are:

- `author`: the author(s) of the book.
- `title`: the title of the book.
- `lang`: the language of the book. The unicode language code should be used, e.g. `en_GB` or `en, fr_FR`, ...
- `cover`: path to an image file for the cover of the book (not displayed in all output formats).

There are also additional metadata:

- `subject`
- `description`
- `license`
- `version`
- `date`

You can define your own metadata by starting an option name with `metadata.foo`.

All metadata are accessible from templates, see [Templates](#).

## The `import_config` special option

The special `import_config` option allows you to include the options of another book configuration file. E.g., assuming that you want some common options to be applied to both `foo.book` and `bar.book`, you can create a `common.book` file:

```
author: Joan Doe
lang: en
license: "Copyright (C) Joan Doe. All rights reserved."

html.header: "[Joan Doe's website](http://joan-doe.com)"
tex.template: my_template.tex
```

You can then include this file in `foo.book`:

```
import_config: common.book
title: Foo

+ foo_01.md
+ foo_02.md
```

Or include it in `bar.book`, but override some of its features:

```
import_config: common.book
title: Bar
license: CC-BY-SA # Override the license from common.book

+ bar_01.md
```

## Output options

These options specify which files to generate.

Recall that all file paths are relative to the directory where the config file is, not to the one where you run `crowbook`. So if you set

```
output.epub: foo.epub
```

and runs

```
$ crowbook some/dir/config.book
```

`foo.epub` will be generated in `some/dir`, not in your current directory.

Crowbook will try to generate each of the `output.xxx` files that are specified. That means that you'll have to set at least one of those if you want a call to

```
$ crowbook my.book
```

to generate anything. (It's still possible to generate a specific format, and only this one, by using the `--to` argument on the command line).

Note that some formats depend on some commands being installed on your system. Most notably, Crowbook depends on LaTeX (`xelatex` by default, though you can specify the command to use with `tex.command`) to generate a PDF file, so PDF rendering won't work if it is not installed on your system. Crowbook also uses the `zip` command to generate the EPUB and ODT files.

Current output options are:

- `output.html`: renders a standalone HTML file.
- `output.html_dir`: render a HTML directory with one page by chapter.
- `output.epub`: renders an EPUB file.
- `output.tex`: renders a LaTeX file.
- `output.pdf`: renders a PDF file (using `tex.command`).

(There are other output options for generating proofreading files, see [Proofreading](#).)

### `output.base_path`

Additionally, the `output.base_path` option allows you to set where the output files will be written (relatively to the book configuration file). E.g.,

```
output.base_path: docs/book
output.epub: book.epub
```

will render the EPUB file in `docs/book/book.epub`.

## Input options

Crowbook does its best to improve the typography of your text. Default settings should be good enough for most usages, but you can enable/disable specific options:



- `input.clean`: if set to `false`, will disable all typographic “cleaning” (default: `true`). The `clean` algorithm is dependent on the language, though currently there is only a variant implemented for `fr` (french), dealing with the specific non-breaking spaces rules for this language.
- `input.clean.smart_quotes`: if set to `false`, disable the “smart quote” feature, that (tries to) replace straight quotes with curly ones. As it is an heuristics and can’t be perfect, you might want to disable it in some circumstances (default: `true`).
- `input.clean.ligature_dashes`: if set to `true`, will convert `--` to en dash (–) and `---` to em dash (—). This can be useful if you want to use these characters but can’t access them easily on your keymap; however, as it can also cause problems if you *do* want to have two successive dashes, it is disabled by default.
- `input.clean.ligature_guillemets` is a similar feature for french ‘guillemets’, replacing `<<` and `>>` to `«` and `»`. For the same reason, it is also disabled by default.

## Generic options for rendering

These options allow to configure the rendering; they are used (or at least should be) for all formats.

### `rendering.num_depth`

An integer that represents the maximum level of numbering for your book. E.g., 1 will only number chapters, while 2 will number chapters, sections, but not anything below that. 6 is the maximum level and turns numbering on for all headers.

**default:** 1

### `rendering.chapter_template`

A string that will be used for chapter titles. You can use `{{{number}}}` and `{{{title}}}` in this string, e.g.:

```
numbering_template: "Chapter {{{number}}} {{{title}}}"
```

Note that:

- in this case, quoting is necessary because { and } have special meaning in YAML;
- this string won't be used for unnumbered chapters;
- this string isn't currently used by LaTeX, either.

It is possible to include Markdown formatting in this template, but it isn't advised, because it might cause problems for some formats (e.g. your EPUB file might not be correct anymore).

### Other rendering options

- **rendering.inline\_toc**: if set to true, Crowbook will include a table of contents at the beginning of the document.
- **rendering.inline\_toc.name**: the name of this table of contents as it should be displayed in the document.
- **rendering.initials**: if set to true, Crowbook will use initials, or “lettrines”, displaying the first letter of each chapter bigger than the others.

## Resources options

These options allow to embed additional files for some formats (currently, only EPUB). This can be useful for embedding fonts.

### resources.files

A list of files or directories that should be added. It's a whitespace-separated list, so it can be, e.g.:

```
resources.files: font1.otf font2.otf
```

It is also possible to specify a directory (or multiple directories). So if you have a **fonts** directories containing **font1.otf** and **font2.otf**,

```
resources.files: fonts
```

will be equivalent to:

```
resources.files: fonts/font1.otf fonts/font2.otf
```

**default**: not set

**resources.out\_\_path**

This option determine where (in which directory), *in the resulting document*, those files will be copied. The default is **data**, so by default the **resources.files** in the first example above will search **font1.otf** and **font2.otf** *in the same directory than the .book file*, and will copy them to **data/font1.otf** and **data/font2.otf** *in the EPUB file*. This is therefore this last path that you should use if you want to access those files e.g. in a custom CSS stylesheet.

Note that if you pass directories to **resources.files**, the whole directory would be copied. So assuming **fonts/** contains **font1.otf** and **font2.otf**

```
resources.files: fonts
resources.path: data
```

will copy these two files to **data/fonts/font1.otf** and **data/fonts/font2.otf** (and not **data/font1.otf** and **data/font2.otf**).

Similarly, the whole path of **resources.files** is copied, so

```
resources.files: fonts/font1.otf fonts/font2.otf
```

will yield the same result.

**default:** data



# Chapter 4

## Templates

Crowbook allows the user to specify a number of templates.<sup>1</sup>

Each of this template can be overridden by a custom one, by setting e.g.:

```
html.css: my_template.css
```

in the book configuration file. The templates that you are most susceptible to modify are the following:

- `html.css`: stylesheet for HTML output;
- `epub.css`: stylesheet for EPUB output;
- `tex.template`: template of a LaTeX file.

### 4.1 Create and edit template

Except for inline templates, which are set directly in the book configuration file:

```
rendering.chapter_template: "{{{loc_chapter}}}" "{{{number}}}"  
"{{{chapter_title}}}"
```

most templates must be in a separate file:

---

<sup>1</sup>Some of them, though, are not “real” templates, they are just files that are inserted, but can’t contain mustache tags. This will probably evolve in future versions.

```
tex.template: my_template.tex
```

## --print-template

The easiest way to create a new template is to start with the default one. In order to do so, you can use the `--print-template` argument:

```
$ crowbook --print-template tex.template > my_template.tex
```

In order to get the `chapter.xhtml` template for EPUB3, you'll also have to use `--set epub.version 3`:

```
$ crowbook --print-template epub.chapter.xhtml --set epub.version  
3 > my_epub3_template.xhtml
```

## Mustache syntax

Crowbook uses **rust-mustache** as its templating engine, which allows to use **Mustache** syntax in the templates.

It mainly boils down to using `{{{foo}}}`<sup>2</sup> to insert the value of variable `foo` in the document:

```
<h1 class = "title" >{{{title}}}</h1>  
<h2 class = "author">{{{author}}}</h2>
```

Mustache also provides the possibility of checking whether a variable is set:

```
{{#foo}}  
Foo exists  
{{/foo}}  
{{^foo}}  
Foo does not exist  
{{^foo}}
```

Crowbook uses this and sets some variables to `true` to allow templates to conditionally include some portions. E.g., in `html.css`:

---

<sup>2</sup>Mustache also provides the `{{foo}}` variant, which HTML-escapes the content of the variable. You should not use this, as Crowbook already renders and correctly escapes the variables it sets for use in templates.

```
{{#lang_fr}}
/* Make list displays '-' instead of bullets */
ul li {
    list-style-type: '-';
    padding-left: .5em;
}
{{/lang_fr}}
```

In this case, Crowbook sets a variable whose name is equal to `lang_foo` to `true`, allowing to have different styles for some elements according to the language.

For more information about Mustache syntax, see [Mustache manual](#).

## Syntax in LaTeX

Since LaTeX already uses a lot of curly brackets, the default template sets an alternative syntax to access variables, with `<<&foo>>`<sup>3</sup>:

```
\title{<<&title>>}
\author{<<&author>>}
<<#has_date>>\date{<<&date>>}<</has_date>
```

## 4.2 List of templates

### html.js

The javascript file used by both the standalone HTML renderer and the multiple files HTML renderer.

This is not currently an actual template, just a plain javascript file which cannot contain `mustache` tags.

### html.css

The main CSS file used by both the standalone HTML renderer and the multiple files HTML renderer.

---

<sup>3</sup>`<<foo>>` might also work, but the ampersand is required to prevent mustache HTML-escaping the value. This is not good because:

1. escaping is already done by Crowbook before setting variable content;
2. escaping HTML in a LaTeX document won't probably look good.

## **html.css.colours**

A CSS file containing only colour settings. Used by `html.css`.

This is not currently an actual template, just a plain CSS file which cannot contain `mustache` tags.

## **html.css.print**

An additional CSS file used by both the standalone HTML renderer and the multiple files HTML renderer. Its purpose is to provide CSS instructions for printing (i.e., when the user clicks the `print` button in her browser).

This is not currently an actual template, just a plain CSS file which cannot contain `mustache` tags.

## **html.highlight.js**

A javascript file used by both HTML renderers to highlight codes in code blocks. It should be a variant of `highlight.js`.

This is not an actual template, just a plain javascript file.

## **html.highlight.css**

A CSS file used by both HTML renderers to set the theme of `highlight.js`. It should, though, be an `highlight.js` theme.

This is not an actual template, just a plain CSS file.

## **html\_\_single.js**

A javascript file used only by the standalone HTML renderer. Its main purpose is to handle the displaying of a single chapter at a time when `one_chapter` is set to true.

## **html\_\_single.html**

The main template for standalone HTML renderer.

## **html\_\_dir.chapter.html**

The main template for multiple files HTML renderer. It is the template for rendering each chapter.



## **html\_dir.index.html**

The template used by multiple files HTML renderer to render the `index.html` file.

## **tex.template**

The main (and currently only) template used by the LaTeX renderer.

## **epub.chapter.xhtml**

This template is the main template used by the Epub renderer. It contains the XHTML template that will be used for each chapter.

## **epub.css**

This template is used by the Epub renderer and contains the style sheet.

## **Inline templates**

Crowbook also has some inline templates, that are set in the book configuration file:

- `tex.template.add`, `html.css.add` and `epub.css.add` allow to specify some LaTeX or CSS code directly in the book configuration file. This code will be added respectively to `tex.template`, `html.css` or `epub.css` template. For CSS template, this code is inserted at the end of the template (allowing to redefine rules that are set by the template); for the LaTeX template, the code is inserted at the end of the preamble, just before the `\begin{document}` tag.
- `rendering.inline_toc.name` sets the name of the inline table of content, if it is displayed. By default, is set to `{{{loc_toc}}}`, that is, a localised version of “Table of Contents”.
- `rendering.chapter_template` sets the naming scheme for chapters.

## **4.3 List of accessible variables**

### **Metadata**

For every template, Crowbook exports all of the metadata:

- `author;`
- `title;`
- `lang;`
- `subject;`
- `description;`
- `license;`
- `version;`
- `date;`
- any option `metadata.foo` defined in the book configuration file will also be exported as `metadata_foo`.

These metadata can contain Markdown, which will be rendered. E.g., setting `date: "20th of september"` will render **september** in bold, using `<b>` tag for HTML or `\textbf` for LaTeX. (It might be a bad idea to insert Markdown into `author` or `title` fields, and it certainly is for `lang`, but it can be useful for custom metadata or for fields like `description`).

For each metadata `foo` that is set, Crowbook also inserts a `has_foo` bool set to true. This allows to use Mustache's section for some logic, e.g.:

```
{{{title}}}  
{{#has_version}}, version {{{version}}}{/has_version}}
```

will avoid rendering “, version” when `version` is not set.

## Localisation strings

For all templates, Crowbook also exports some localisation strings `loc_foo`. They currently include:

Localisation key	Value in english
<code>loc_toc</code>	Table of contents
<code>loc_chapter</code>	Chapter
<code>loc_display_all</code>	Display all chapters
<code>loc_display_one</code>	Display one chapter

## Template-dependent values

Crowbook also exports some additional fields for some templates, see below.

	Mustache tag
	<code>content</code>
	<code>toc</code>
	<code>has_toc</code>
	<code>colours</code>
	<code>footer</code>
	<code>header</code>
	<code>script</code>
	<code>style</code>
A variable whose name corresponds to <code>lang</code> in book options (e.g. <code>lang_en</code> if lang is en)	
	<code>chapter_title</code>
	<code>highlight_code</code>
	<code>highlight_css</code>
	<code>highlight_js</code>
	<code>common_script</code>
	<code>one_chapter</code>
	<code>book.svg</code>
	<code>pages.svg</code>
	<code>favicon</code>
	<code>menu_svg</code>
	<code>prev_chapter</code>
	<code>next_chapter</code>
	<code>class</code>
	<code>book</code>
	<code>tex_lang</code>
	<code>tex_title</code>
	<code>tex_size</code>
	<code>has_tex_size</code>
	<code>initials</code>
	<code>additional_code</code>



## Chapter 5

# Proofreading with Crowbook

Since version 0.9.1, Crowbook includes some proofreading features, that can be enabled if you set one of the

- `output.proofread.html`
- `output.proofread.html_dir`
- `output.proofread.pdf`

output files. This allows you to generate different files for publishing and proofreading (you probably don't want to publish a version that highlights your grammar errors or your repetitions).

Current proofreading features are:

- repetition detection;
- grammar check;
- highlighting non-breaking spaces.

### 5.1 Enabling proofreading

Since proofreading can take quite a lot of time, particularly for a long book, it is disabled by default. You'll have to run

```
$ crowbook --proofread my.book
```

or

```
$ crowbook -p my.book
```

to generate proofreading copies. Alternatively, if you want it to be activated each time you run **crowbook** on this book (which is *not* recommended for long books, particularly if you want to perform a grammar check), you can set

```
proofread: true
```

in the book configuration file.

## 5.2 Repetition detection

Repetition detection is enabled with:

```
proofread.repetitions: true
```

It uses **Caribon** library to detect the repetition in your text. Since the notion of a repetition is relatively arbitrary, it is possible to adapt the settings. Default are:

```
# The maximum distance between two identical words to
# consider them a repetition
proofread.repetitions.max_distance: 25
# The minimal number of occurrences to consider it a repetition
proofread.repetitions.threshold: 2.0
# Ignore proper nouns (words starting by a capital,
# not at a beginning of a sentence)
proofread.repetitions.ignore_proper: true

# Activate fuzzy string matching
proofread.repetitions.fuzzy: true
# The maximal ratio of difference to consider
# that two words are identical
# (E.g., with 0.2, "Rust" and "Lust" won't be
# considered as the same word, but they will be with 0.5)
proofread.repetitions.fuzzy.threshold: 0.2
```

For more information, see **Caribon**'s documentation.

Currently, repetitions are not displayed in PDF proofreading output.

## 5.3 Grammar checking

Crowbook can also use **LanguageTool** to detect grammar errors in your text. It is, however, a bit more complex to activate.

First, you'll have to activate this feature in your book configuration file:

```
# Activate language tool support
proofread.languagetool: true
# (Optional) Sets the port number to connect to (default
below)
proofread.languagetool.port: 8081
```

You'll then have to download the stand-alone version of **LanguageTool**. It includes a server mode, which you'll have to launch:

```
$ java -cp languagetool-server.jar org.languagetool.server.HTTPServer
--port 8081
```

You can also use the LanguageTool GUI (**languagetool.jar**) and start the server from the menu “Text Checking -> Options”. This also allows you to configure LanguageTool more precisely by activating or deactivating rules.

You can then run Crowbook, and it will highlight grammar errors in HTML or PDF proofreading output files.

Note: running a grammar check on a long book (like a novel) can take up to a few minutes.

## 5.4 Highlighting non-breaking spaces

The last proofreading feature is a bit less important, but it can be useful in some cases. It is dis/activated by setting **proofread.nb\_spaces** to “true” or “false”, and it will highlight different sort of non-breaking spaces in HTML proofreading output files. This can be useful in some cases, but it is mostly a debugging feature to check that the french cleaner of Crowbook correctly replaces spaces with correct non-breaking spaces in the relevant places.





# Chapter 6

## Tips and tricks

### 6.1 Using Crowbook with Emacs' markdown mode

If you use **Emacs** as a text editor, there is a nice **Markdown mode** to edit Markdown files.

It is possible to use Crowbook for HTML previewing in this mode, which **requires only minimal configuration and tweaking**:

```
(custom-set-variables
 '(markdown-command "crowbook -qs --to html --output /dev/stdout")
 '(markdown-command-needs-filename t))
```

You can then use `markdown-preview` (or `C-c C-c p`) to run Crowbook on this file and preview it in your browser, or run `markdown-live-preview` to see a live preview (updated each time you save you file) in Emacs' integrated browser.

#### Some explanations if it looks a bit cryptic to you

We set `markdown-command` to `crowbook`, the reason for this is a bit obvious. The arguments we give to crowbook might be a bit less obvious:

- `-qs` or `--quiet --single` tells Crowbook that is a standalone markdown file, and not a book configuration file, and to be a bit quiet on error/info messages;
- `--to html` specifies that HTML must be generated;

- `--output /dev/stdout` forces Crowbook to display the result on the stdout, even if you set `output.html` to `some_file.html`.

Also, (`markdown-command-needs-filename t`) is because at this point Crowbook can't read from the stdin and must be specified a file.

## Limitations

While it renders correctly, this only works really nicely on standalone Markdown files where you have specified, e.g.:

```
---
author: Your name
title: Some title
---
```

Else, it will sets `author` and `title` to the default values.

## 6.2 Embedding fonts in an EPUB file

In order to embed fonts in an EPUB file, you'll first have to edit the stylesheet, which you can first obtain with:

```
$ crowbook --print-template epub.css > my_epub_stylesheet.css
```

You'll need to use the `@font-face` attribute:

```
@font-face {
  font-family: MyFont;
  src: url(data/my_font.ttf);
}
```

Then you can add `my_font.ttf` to the files that need to be added to the EPUB zip file:

```
title: My Book
author: Me

cover: cover.png
output.epub: book.epub

resources.files: my_font.ttf
```

(Note that you'll have to repeat the process the different **font-weight** and **font-style** variants of your font if you want it to display correctly when there is some text in **bold**, *italics*, or ***both***.)



# Chapter 7

## Contributing

Crowbook is a free software, and you can contribute to it. There are some things that can be accessible even if you don't know anything about programming.

### 7.1 Internationalization

Crowbook aims to support multiple languages. However, unfortunately, currently only english, french, and (in a more limited way) spanish are currently supported. If you want to have better support for the language you write in, there are easy things you can do:

- Provide a translation for the few strings that Crowbook insert into the rendered documents. This is really easy, as there are currently less than a dozen of them, and you just need to create a new variant of the `lang/en.yaml` file.
- Open an [issue](#) about the typographic rules in your language, if Crowbook doesn't cover them.
- Provide a translation for the Crowbook program. It requires creating a variant of the `.po file`, which is a bit more work because (at this time) it's around 1,500 lines (and less a priority than the first item of this list, as this translation only affects the the command-line interface and not the rendered documents).



# ChangeLog

## unreleased

- Rendering:
  - EPUB: the toc.ncx now displays links to “title” and (if set) “cover”
- Bugfixes:
  - EPUB:
    - \* Fix duplicate HTML escaping (resulting in e.g. ”&” instead of ”&”).
- Internationalization:
  - Strings in generated Crowbook documents (such as “Table of contents”, “Title”, “Cover” and such) are now translated in spanish.

## 0.10.4 (2016-12-16)

- New options:
  - `tex.font_size` specifies an optional font size (in pt) passed to the LaTeX class (must be 10, 11 or 12).
  - `tex.title` can be set to `false` to avoid rendering the title with `\maketitle`.
  - `tex.paper_size` specifies the paper size for PDF output.
  - `tex.template.add`, `html.css.add` and `epub.css.add` allow to specify inline LaTeX or CSS code in the book configuration

file that will be added respectively to `tex.template.add`, `html.css.add` and `epub.css.add`.

- `html.icon` allows to specify the path of an icon for HTML documents.
- Command-line interface:
  - Paths that are displayed should now be normalized, e.g. “foo/bar.pdf” instead of “baz/../foo/bar.pdf”.
- Rendering:
  - HTML:
    - \* The default CSS style has been slightly modified.

### 0.10.3 (2016-11-19)

- Building:
  - Crowbook now requires `rustc`  $\geq$  1.13.0 to build.
  - Pre-built binaries now all include the proofreading feature.
  - Linux binaries are now linked against `musl` library so they should really work on any Linux platform.
- Bugfixes:
  - Fixed escaping of `author` and `title` fields.
  - Fixed text cleaning in ODT rendering that causes corrupt files to be generated.
- CommandLine Interface:
  - Crowbook displays clearer error messages when unable to launch `latex` or `zip` commands.
  - Crowbook uses `term` library in order to display colours correctly on e.g. Windows.
  - The new argument `--lang` (or `-L`) allows to set the runtime language used by Crowbook, overriding `LANG` environment variable.
  - `--list-options` no longer uses colours as it caused problems depending on the terminal or when piping to `less`.



## 0.10.2 (2016-10-21)

Only minor changes in this version:

- Options:
  - `author` and `title`'s default values are both set to the empty string, instead of `Anonymous` and `Untitled`.
  - `input.autoclean` has been renamed `input.clean`.
  - `input.smart_quotes` has been renamed `input.clean.smart_quotes`.
  - new option: `input.clean.ligature.dashes` will (if set to true) replace `--` to en dash (`-`) and `---` to em dash (`-`).
  - new option: `input.clean.ligature.guillemets` will (if set to true) replace `<<` and `>>` to french guillemets (`«` and `»`).
- Rendering:
  - HTML: if `html_single.one_chapter` and `rendering.inline_toc` are both set to true, only render the TOC if currently displayed chapter is the first.

## 0.10.1 (2016-10-18)

Fixed a bug in `fr.po` translation that prevented building from fresh install.

## 0.10.0 (2016-10-18)

This release contains some breaking changes (mostly for the API, which has been split in separate libraries). It also features some internationalization support, and the program should now be translated if your `LANG` environment variable is set to french.

- **Breaking changes:**
  - Templates:
    - \* Conditional inclusion depending on `lang` must now be done using `lang_LANG` (e.g. `lang_fr`, `lang_en`, and so on). This might impact custom `epub.css` and `html.css` templates.

- API:
  - \* The `escape` module has been moved to a separate crate, `crowbook_text_processing`. The `cleaner` module is no longer public, but the features it provided are also available in `crowbook_text_processing`.
- New options:
  - `html.css.colours` allows to provide a CSS file that only redefine the colour scheme. Such a file can be built from `crowbook --print-template html.css.colours`.
  - `input.smart_quotes`: if set to `true`, tries to replace ' and " by curly quotes.
- Command line interface:
  - Crowbook is now (imperfectly) localized in french, and can be translated to other languages.
  - Added the `--quiet` (or `-q`) argument, that makes crowbook run without displaying any messages (except some error messages at this point).
- Rendering:
  - HTML:
    - \* The table of contents menu is no longer displayed in the HTML single renderer if it doesn't contain at least two elements.
    - \* The default colour theme has been modified a little.
- Bugfixes:
  - Fix the escaping of non-breaking spaces in EPUB, as `&nbsp`; and its friends aren't valid entities in XHTML, apparently.

## 0.9.1 (2016-09-29)

This release mainly introduces generation of proofreading copies, allowing, if they are set (and `crowbook` was compiled with the `proofread` feature) to generate proofreading copies, using tools to check grammar and detect repetitions. These features are currently experimental.

- New options:

- `html.escape_nb_spaces`, if set to true (by default), will replace unicode non breaking spaces with HTML entites and CSS so it can display correctly even if reader's don't have a browser/font supporting these unicode symbols.
- Output files for proofread documents: `output.proofread.html`, `output.proofread.html_dir` and `output.proofread.pdf`.
- Proofread options `proofread.repetitions` and `proofread.nb_spaces` have been added.
  - \* `proofread.nb_spaces`, if set to true, highlights non-breaking spaces so it is easier to check the correct typography of a book. Note that it requires that `html.escape_nb_spaces` be set to true (default) to work.
  - \* `proofread.repetitions`, if set to true, uses **Caribon** to highlight repetitions in a document. It also uses the settings `proofread.repetitions.fuzzy`, `proofread.repetitions.proofread.repetitions.threshold`, `proofread.repetitions.proofread.repetitions.ignore_proper`. Note that this feature is not built by default, you'll have to build crowbook with `cargo build --release --features "repetitions"`.
- New default settings for options:
  - `tex.command` is now `xelatex` by default.
- Rendering:
  - LaTeX:
    - \* Add support for xelatex in the default template.
  - Improved french cleaner (see **an article (in french)** that talks about what it does).
- Crowbook user guide: documentation has been updated to correctly reflect 0.9.x options.
- API:
  - `clap` dependency is now optional, people who want to use Crowbook as a library should include it with `crowbook = { version = "0.9", default-features = false }`. (`clap` is still required to build a working binary).

## 0.9.0 (2016-09-23)

The main objective of this release is to clean public interfaces, in order to limit breaking changes in the future. *Ideally*, all pre-1.0 releases should thus be 0.9.x. Concretely, this meant three things:

- reducing the surface of Crowbook's library API;
- cleaning options names
- cleaning the names exported in templates and document them, in order not to break user-defined templates in future (non-breaking) releases. More detailed changes for this release:
- **Breaking change for users:** removed `tex.short` option, replaced by a more generic `tex.class` (default being `book`). `html.crowbook_link` has also been removed.
- Renamed options. Using the old name will print a deprecation warning but will still work for a while.

```
- temp_dir -> crowbook.temp_dir
- zip.command -> crowbook.zip.command
- verbose -> crowbook.verbose
- html.print_css -> html.css.print
- html.display_chapter -> html_single.one_chapter
- html.script -> html_single.js
- numbering -> rendering.num_depth
- numbering_template -> rendering.chapter_template
- display_toc -> rendering.inline_toc
- toc_name -> rendering.inline_toc.name
- enable_yaml_blocks -> input.yaml_blocks
- use_initials -> rendering.initials
- autoclean -> input.autoclean
- html_dir.css -> html.css (not really renamed, html_dir.css
  is actually removed as there is no point in having different
  CSS for standalone and multifile HTML rendering, is it?)
```

- New options:

- More metadata: `license`, `version` and `date`. These metadata are not treated by the renderers, but they are exported to the templates: `{{metadata}}` allows to access the content. If they are present, a `has_metadata` is also set to true, allowing to do something like `{{title}} {{#has_version}}version{{/has_version}} {{/has_version}}`.
- Yet more metadata: it is possible to add custom metadata by prefixing it with `metadata..` They will then be accessible in the templates, with dots (‘.’) replaced by underscores (‘\_’). E.g., with `metadata.foo: bar` you can access it in your templates with `{{metadata_foo}}`.
- `output.base_path` specifies a directory where the output files (set by `output.FORMAT`) will be written.
- `resources.base_path.templates` specifies where templates can be found.
- Rendering:
  - Metadata can now contain Markdown and will be rendered by the renderers. This might not be a good idea for common fields (e.g. “title”), though. Use with caution.
  - `rendering.inline_toc.name` can use `{{loc_toc}}` to specify a localized name.
  - HTML:
    - \* `html.top` and `html.footer` are now considered as templates, so you can use some `{{metadata}}` in it.
    - \* Improved the way footnotes are displayed.
    - \* In standalone HTML, footnotes are rendered at the end of the document instead of at the end of the chapter, unless `html_single.one_chapter` is true.
  - LaTeX:
    - \* If `tex.class` is set to `article`, chapters will be displayed as `\sections` since `article` class doesn’t handle chapters.
    - \* Except if `tex.class` is set to `book`, margins are now symmetrical.
    - \* LaTeX template now uses `version` and `date`.
- Bugfixes:

- `import_config` only import options from another book file that are not equal to the default ones and that haven't already been set by the caller. E.g., `author: foo` then `import_config: bar.book` won't erase the author previously set.
  - `import_config` now correctly translates the imported book's paths.
- Crowbook program:
  - Still working to improve error messages.
  - `crowbook --list-options` uses colours. This might hurt your eyes.
  - Display an error message when mustache can't compile a template, instead of panicking.
- Internal/API:
  - Added static methods to `Logger` to allows displaying messages more easily/prettily.
  - Reduce public API's surface so less changes will need to be considered breaking in the future.

## 0.8.0 (2016-09-19)

This release adds support for syntax highlighting in code blocks, customized top and footer blocks for HTML rendering, and the special `import_config` option that allows to import options from another book file. It also provides (hopefully) better error messages.

- New options:
  - `import_config` is not really an option, but allows to import another configuration file, useful if you share a same set of options between multiple books.
  - `use_initials` (set to false by default) makes Crowbook use initials (“letrines”) at start of each chapter. Support is still experimental.
  - `html.highlight_code` (set to true by default) allows syntax highlighting for code blocks, using `highlight.js`.

- `html.highlight.css` and `html.highlight.js` can be used to provide other themes (default is `default.css`) and an `highlight.js` build that support other languages.
- `html.footer` allows to specify custom footer. If not set, `html.crowbook_link` allows to disable “Generated by Crowbook” message.
- `html.top` allows to specify a custom header that will be displayed at the top of HTML file(s).
- Deprecated options:
  - `side_notes` has been renamed `html.side_notes`.
- Crowbook program:
  - All output formats are now rendered concurrently.
  - Better error messages. Crowbook now tries to give more information when displaying an error, with the file name where a problem was found, and, in some cases, the line. It also tries to detect errors (such as files not found) sooner.
  - Some “warning” messages have also been “moved” to error messages, to make sure they are displayed even when crowbook isn’t runned with `--verbose`.
- Rendering:
  - Hidden chapter now produce empty `\chapter*{}` and `<h1>` in LaTeX and HTML. This allow to delimit a chapter break even if nothing is displayed.
- Bugfixes:
  - Navigation menu of standalone HTML didn’t include a call to javascript when `html.display_chapter` was set to true, meaning it didn’t display the chapter correctly.
  - Implementations of `Image` and `StandaloneImage` were reversed in LaTeX.
  - `StandaloneImage` urls were not adjusted (meaning that running `crowbook` from another directory failed).
  - Image paths are now found correctly in `HtmlDir` rendering even if `crowbook` is called from another directory (same fix as 0.6’s for Epub and LaTeX, which was forgotten for `HtmlDir`).

- Internal/API:
  - In order to have better error messages, there was a need to refactor the **Error** type, and make more methods return **Result<X>** instead of **X**. The API is, therefore, quite modified.
  - Added a **Renderer** trait used by the various renderers.
  - Removed some methods from public API.

## 0.7.0 (2016-09-11)

This releases renders images differently when they are on a standalone paragraph or inside a paragraph.

- Internal/API:
  - **Token** has a new variant, **StandaloneImage**. This is used to distinguish an image that is alone in a paragraph of an image that is inlined alongside text.
  - **Parser.parse** method now distinguishes between **Image** and **StandaloneImage**. Currently, an image is considered “standalone” if it is the sole element of a paragraph, even if it is among a link.
  - **Token** has a new **is\_image** method.
- Rendering:
  - Standalone images are now rendered differently than inline images (80% of width VS original size) in HTML/EPUB and LaTeX.

## 0.6.0 (2016-09-09)

- Deprecated options:
  - **nb\_char**: since it was only used for french cleaner and for typography reasons it's better to use different non breaking spaces according to context, this option was not really useful anymore.
- Rendering:



- Images are now displayed at 80% width of the page.
- Bugfixes:
  - Image paths are now found correctly in LaTeX and EPUB rendering even if **crowbook** is called from another directory.
  - Fixed a bug in **French** cleaner when a string to clean ended by a non-breaking space (space was doubled with a breaking one).
  - LaTeX/PDF:
    - \* “Autocleaning” is now also activated (for french at least) for LaTeX rendering, since it doesn’t correctly insert non-breaking spaces for e.g. ‘«’ or ‘»’.
    - \* Fixed escaping of -- to -{- to avoid tex ligatures.
  - HTML/EPUB:
    - \* `html.display_chapter` now defaults to `false` (e.g., by default the HTML displays the entirety of a book).
    - \* Fixed rendering of lists when `lang` is set to `fr`.
    - \* Links are now HTML-escaped, fixing errors in XHTML (for EPUB rendering) when links contained ‘&’ character.

### 0.5.1 (2016-04-14)

Mostly rendering fixes:

- Epub:
  - Fix a validation problem when book contained hidden chapters.
- French cleaner:
  - Use semi-cadratine space instead of cadratine space for dialogs.
  - Use non-narrow non-breaking spapce instead of narrow one for ‘:’, ‘«’ and ‘»’ (following [https://fr.wikipedia.org/wiki/Espace\\_inseparable](https://fr.wikipedia.org/wiki/Espace_inseparable)).
- HTML:
  - Add viewport meta tags.

- Standalone HTML:
  - \* Don't display the button to display chapter and the previous/next chapter link if `html.display_chapter` is set to `false`.
  - \* Fix chapter displaying when some chapters are not numbered.
- Multi-files HTML:
  - \* Fix previous/next chapter display to make it consistent with standalone HTML.

## 0.5.0 (2016-04-02)

- Crowbook now requires Rustc 1.7.0.
- It is now possible to render HTML in multiple files:
  - `output.html_dir` will activate this renderer, and specify in which directory to render these files;
  - `html_dir.css` allows to override the CSS for this rendering;
  - `html_dir.index.html` allows to specify a template for the `index.html` page;
  - `html_dir.chapter.html` allows to specify a template for the chapters pages.
- New book options:
  - `tex.short`: if set to true, the LaTeX renderer will use `article` instead of `book` as document class, and will use the default `\maketitle` command for article. This option is by default set to false, except when Crowbook is called with `--single`.
  - `enable_yaml_blocks`: parsing YAML blocks is no longer activated by default, except when using `--single`. This is because you might want to have e.g. multiple short stories using YAML blocks to set their titles and so on, *and* a separate `.book` file to render a book as a collection of short stories. In this case, you wouldn't want the displayed title or the `output.pdf/html/epub` files be redefined by the short stories `.md` files.
  - `html.print_css`: allows to specify a stylesheet for media print

- `html.display_chapter`: displays one chapter at a time in standalone HTML
  - `html.script`: allows to specify a custom javascript file for standalone HTML
  - `html_dir.script`: same thing for multipage HTML
  - `resources.base_path`: by default, Crowbook resolves local links in markdown files relatively to the markdown file. This option allows to resolve them relatively to a base path. This option comes with two variants, `resources.base_path.images` and `resources.base_path.links`, which only activate it for respectively images tags and links tags. These two options are ignored when `base_path` is set. There is also `resources.base_path.files` which specify where additional files (see below) should be read, but this is one is set to `.` (i.e., the directory where the `.book` file is) by default.
  - `resources.files`: indicate a (whitespace-separated) list of files that should be embedded. Currently only used with the EPUB renderer.
  - `resources.out_path`: indicate where `resources.files` should be copied in the final document. Default to `data`, meaning that files will be placed in a `data` directory in the EPUB.
- Rendering:
    - Templates can now use localized strings according to the `lang` option
    - Standalone HTML now includes locale files using base64.
    - Standalone HTML displays one chapter at a time, though it can be changed via a button in the menu.
    - HTML/EPUB: default CSS now uses the `lang` value to determine how to display lists (currently the only difference is it uses “–” when `lang` is set to “fr” and standard bullets for other languages).
  - Bugfixes:
    - Fixed a bug of filename “resolution” when Crowbook was called with `--single` (e.g., `crowbook -s tests/test.md` would previously try to load `tests/tests/test.md`).

- Epub renderer now uses the `mime_guess` library to guess the mime type based on extension, which should fix the mime type guessed for a wide range of extensions (e.g., `svg`).
- Internal/API:
  - The `Book::new`, `new_from_file`, and `new_from_markdown_file` take an additional `options` parameter. To create a book with default options, set it to `&[]`.

## 0.4.0 (2016-03-01)

- Crowbook now internally uses a true YAML parser, `yaml_rust`, for its options. Since the “old” Crowbooks’s config format was similar, but had some subtle differences, this is somewhat of a breaking change:
  - strings should now be escaped with “” in some cases (e.g. if it contains special characters). On the other hand, it *allows* to optionally escape a string with these quotes, which wasn’t possible until then and might be useful in some cases.
  - multiline strings now follow the YAML format, instead of the previous “YAML-ish” format. This can impact the way newlines are added at the end of a multiline string. See e.g. [this link](#) for the various ways to include multiline strings in Yaml.
- Crowbook now parses YAML blocks (delimited by two lines with “---”) in Markdown files, ignoring keys that it doesn’t recognize. This allows crowbook to be compatible(-ish) with Markdown that contains YAML blocks for Jekyll or Pandoc.
- New option `--single` allows to give Crowbook a single Markdown file (which can contain options within an inline YAML block) instead of a book configuration file. This is useful for e.g. short stories.
- Enhanced the way debugging/warning/info messages are handled and displayed:
  - Added a `--debug` option to the binary.
  - Internal: added a `Logger` struct.

- Different levels of information (debug/warning/info/error) get different colours.
- Bugfixes:
  - Crowbook no longer crashes when called with the `--to` argument if it can't create a file.

### 0.3.0 (2016-02-27)

- Crowbook now tries to convert local links. That is, if you link to a Markdown file that is used in the book. (e.g. [README.md](#)), it *should* link to an appropriate inner reference inside the book.
- Latex renderer now supports (local) images.
- Epub renderer now embed (local) images in the EPUB file.
- Some changes to the HTML/Epub stylesheets.
- Internal (or usage as a library):
  - Crowbook no longer changes current directory, which worked in the binary but could cause problem if library was used in multithreaded environment (e.g. in `cargo test`).
  - More modules and methods are now private.
  - Improved documentation.
  - Added more unit tests.
- Bugfixes:
  - Epub renderer now correctly renders unnumbered chapter without a number in its `toc.ncx` file

### 0.2.2 (2016-02-25)

- Bugfixes:
  - French cleaner now correctly replaces space after `—` (in e.g. dialogs) with “em space”.

## 0.2.1 (2016-02-25)

- Bugfixes:
  - HTML/Epub rendering no longer incorrectly increment chapter count for unnumbered chapters.
  - Latex: makes what is possible to avoid overflowing the page.
- Minor changes:
  - Latex: improvement of the default way URLs are displayed.

## 0.2.0 (2016-02-25)

- Command line arguments:
  - New argument `--print-template` now allows to print a built-in template to `stdout`.
  - New argument `--list-options` prints out all valid options in a config file (or in `set`), their type and default value.
  - New argument `--set` allows to define or override whatever option set in a book configuration.
  - `--create` can now be used without specifying a `BOOK`, printing its result on `stdout`.
- Configuration file:
  - Added support for multiline strings in `.book` files, with either `'|'` (preserving line returns) or `'>'` (transforming line returns in spaces)
  - New option `display_toc` allows to display the table of contents (whose name, at least for HTML, is specified by `toc_name`) in HTML and PDF documents.
  - Option `numbering` now takes an int instead of a boolean, allowing to specify the maximum level to number (e.g. 1: chapters only, 2: chapters and section, ..., 6: everything).
- Rendering:
  - Added support for numbering all headers, not just level-1 (e.g., having a subsection numbered 2.3.1).

- Tables and Footnotes are now implemented for HTML/Epub and LaTeX output.
- Internal:
  - Refactored `Book` to use an `HashMap` of `BookOptions` instead of having like 42 fields.

## 0.1.0 (2016-02-21)

- initial release





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Version 2.1, February 1999

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