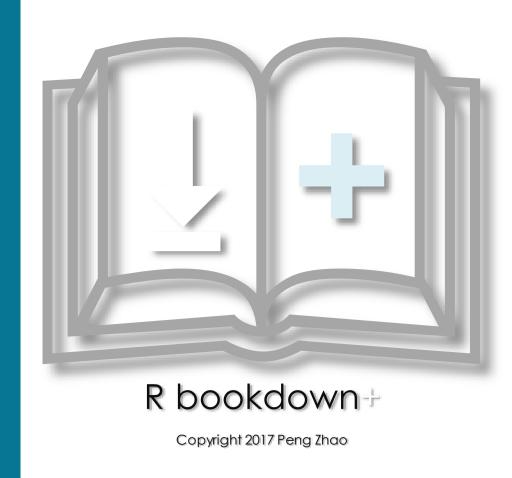
R bookdown+: Authoring varied types of books and documents with R bookdown

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Introduction

Motivation

R bookdown (Xie, 2016) is an excellent R (R Core Team, 2017) package for authoring books on programming languages. It has the potential to do much more than authoring R books if users costumize self-defined templates. However, the development of templates is difficult and unnecessary. Therefore I developed bookdown+ (Zhao, 2017).

Features

R bookdown+ is a collection of multiple templates. With bookdown+ you can easily

- write a laboratory journal, or a personal diary,
- draw a monthly or weekly or conference calendar,
- record guitar chords,
- write a mail in an elegant layout,
- ▶ and, of course, write academic articles in your favourite way,
- with chemical molecular formulae and equations,
- even in Chinese,
- and more wonders will come soon.

This poster you are viewing now is produced by R bookdown+.

Quick start

Before starting, you have to install R, RStudio, bookdown package, and other software and packages (i.e. Pandoc, LATEX, rmarkdown, rticle, knitr, etc.) which bookdown depends on. See the official manual of bookdown ^a for details.

Download bookdown+ b package as a zip file from Github. Unzip it to a folder in your PC. Double click a file named _start.Rproj, which will be opened by RStudio.

Open _runme.R and run it. The explanation is as follows,

- 1. Specify the title and the author of your book or document.
- 2. Choose a template out of the available templates. Run fun/build.R.
- 3. Press ctrl+shift+b to build a demo book, which you can find in book/. Write your own text in body.Rmd, and build your own lovely book.

ahttps://bookdown.org/yihui/bookdown/

bhttps://github.com/dapengde/bookdown-plus

Graphs

Using bookdown or rmarkdown, users can insert figures into a document in a friendly way. Just embed the R scripts into your .Rmd file(s) and compile it/them with knitr package, and the figures will appear automatically with high resolution and reproductivity.

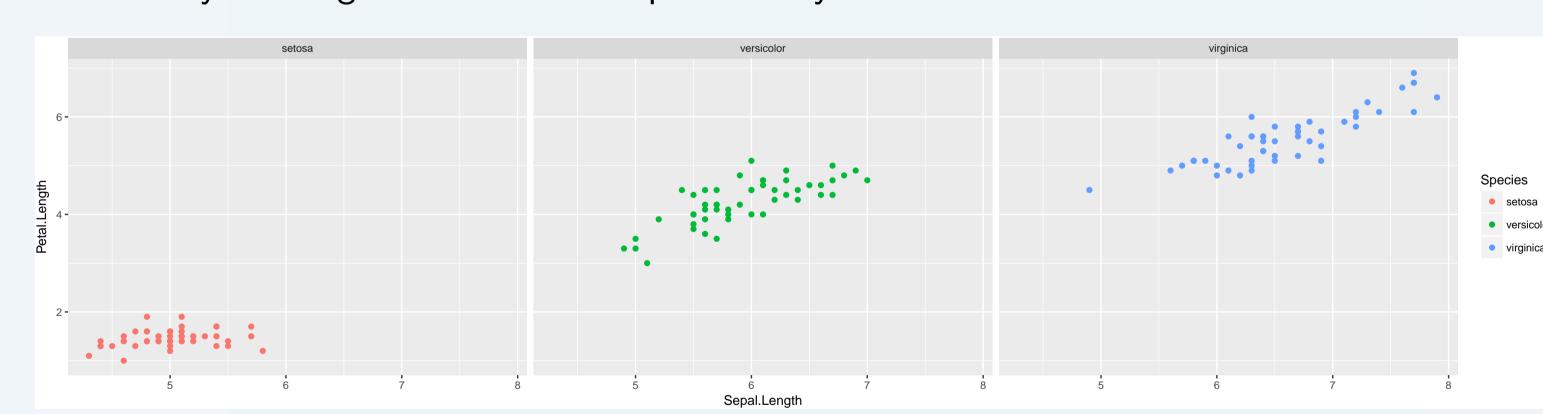


Figure 1: IRIS data plotted with R ggplot2 package.

Table

Similarly to graphs, tables can be inserted either with R script or with markdown syntax.

Sepal.Length Sepal.Width Petal.Length Petal.Width Species

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4.9	3.0	1.4	0.2	setosa
4.7	3.2	1.3	0.2	setosa

Bibliography

R Core Team (2017). R: A Language and Environment for Statistical Computing. R Foundation for Statistical Computing. Vienna, Austria.

Xie, Y (2016). bookdown: Authoring Books and Technical Documents with R Markdown. R package version 0.3.17.

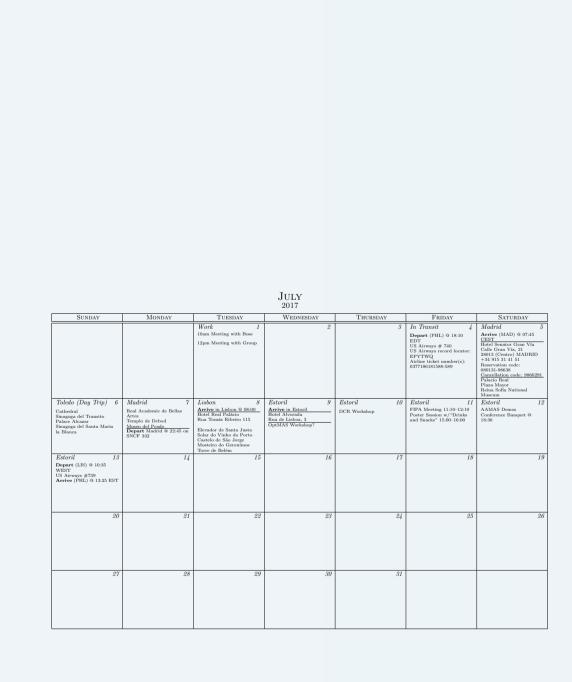
Zhao, P (2017). R bookdown+: Enhancement of bookdown for writing varied types of books and documents.

Book types supported by bookdown+

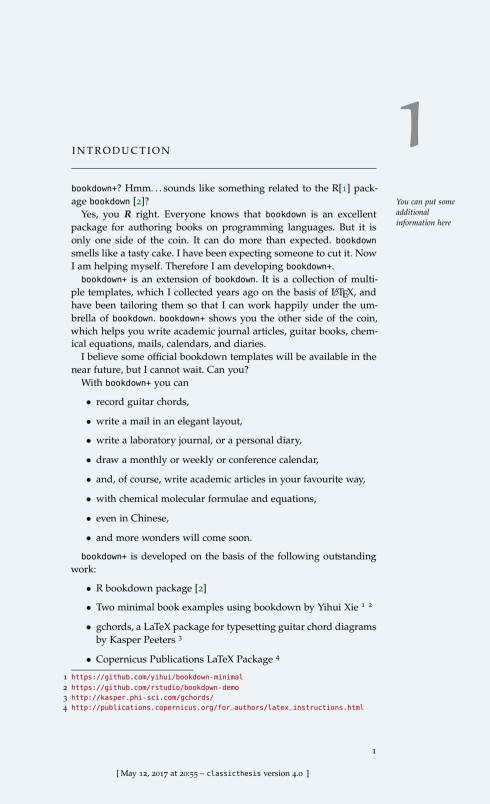
Some sample pages are displayed as follows. More details can be found in the tutorial book (Zhao, 2017).







	8	CHAPTER 2.	DEMOS		
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	A ← B				
	A , → B				
	$A \xrightarrow{H_2O} B$				
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	$A \xrightarrow{x}_{x_i} B$				
	$A \xrightarrow{x} B$				
	A + B				
	A-B				
	A = B				
	$A \pm B$				
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	$A \downarrow B \downarrow \longrightarrow B \uparrow B \uparrow$				
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	$xNa(NH_4)HPO_4 \xrightarrow{\Delta} (NaPO_3)_x + xNH_3 \uparrow + xH_2O$				
	$\mathrm{CO}_2 + \mathrm{C} \longrightarrow 2\mathrm{CO}$				
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2.3 Structural formulae					
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Take-home message

WedneTuesday, 10 May, 2017

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OK, now you can see a _runme.R file as well. Open it and

run the script, or follow my explanation as follows,

0.2 Step 1. Title and author

0.4 Step 3: Write and Build

Now you can press ctrl+shift+b to build a demo book, which

Write your own text in body. Rmd, and build your own lovely

7 | 13

book, or whatever.

Run fun/build.R

vou can find in book/

0.3 Step 2: Template

0.1 Step 0. Preparation

- ▶ R bookdown+ is an extension of bookdown for academic and literal writing, especially for reproducible reports.
- ▶ R bookdown+ is still being developed. Feel free to join me either in contributing templates to **my Github repo** a , or in writing the tutorial of R bookdown+ (Zhao, 2017).

^ahttps://github.com/dapengde/bookdown-plus

Acknowledgements

Many thanks to Dr. Yihui Xie for his amazing generosity and incredible patience in helping me get into the world of R bookdown.

The open source codes from Github and R community are much appreciated.