

# Tinderbox file for Quarto

How to use this file

fryagbye



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# Introduction

This Tinderbox file supports creating a book, manuscript (beta), revealjs with [Quarto](#).

[Tinderbox file for Quarto \(Web version\)](#)

You can easily make qmd files and \_quarto.yml with it. Here is an example of books created with Quarto.

- [R for Data Science \(2e\)](#)(Wickham and Grolemund (2016))

You can preview Rchunk and Graphs (Mermaid Flowchart and Graphviz) in Tinderbox.

Tinderbox file for Quarto

AUTHOR  
fryagbye

**1 Welcome to the Quarto Book**

This is a demonstration of Quarto's book format. In this book, you'll find:

- An introduction to the Quarto book structure.
- A chapter with a data visualization example.
- A conclusion summarizing what we've learned.

Table of contents

1 Welcome to the Quarto Book

Edit this page Report an issue

図 1: Tinderbox with Quarto part1

My Workflow is 図 2.

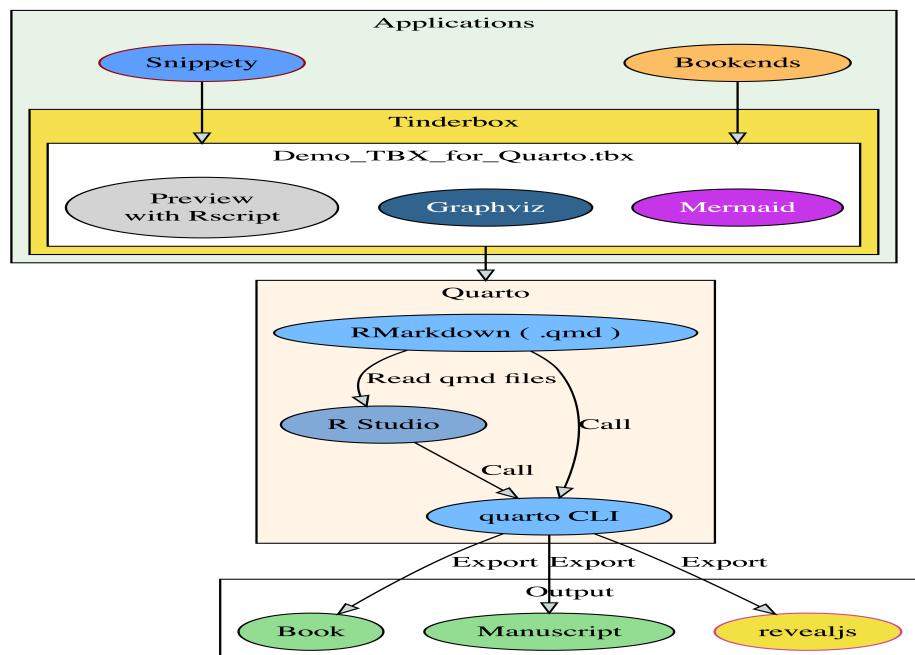


図 2: Tinderbox Work Flow with Quarto. ( Graphviz version )

# Chapter 1

## Usage environment

Please refer to the output results of `quarto check`.

- Quarto is using the released version 1.7.13 (pre-release)<sup>\*1</sup>.
- R is version 4.4.2.
- I use luaLatex for output in Japanese. I have installed MacTex because TinyTeX doesn't include it.
- It may be better to uninstall TinyTeX.
- I have set it to use the `lightbox` extension ( included in Quarto v1.4+).

<sup>\*1</sup>I have set it to use the `quarto-live` extension for revealjs. ([quarto live](#))  
`quarto check`

```
# Quarto check output
Quarto 1.7.13

[✓] Checking environment information...
      Quarto cache location: /Users/tk4o2ka/Library/Caches/quarto

[✓] Checking versions of quarto binary dependencies...
      Pandoc version 3.4.0: OK
      Dart Sass version 1.70.0: OK
      Deno version 1.46.3: OK
      Typst version 0.11.0: OK

[✓] Checking versions of quarto dependencies.....OK

[✓] Checking Quarto installation.....OK
      Version: 1.7.13
      Path: /Applications/quarto/bin

[✓] Checking tools.....OK
      Chromium: 869685
      TinyTeX: (not installed)

[✓] Checking LaTeX.....OK
      Using: Installation From Path
      Path: /usr/local/texlive/2024/bin/universal-darwin
```

---

<sup>\*1</sup> Since the old headless mode has been removed from Chrome 132, Quarto v1.7.13 or later is required.

```

Version: 2024

[✓] Checking Chrome Headless.....OK

Using: Chrome found on system
Path: /Applications/Google Chrome.app/Contents/MacOS/Google Chrome
Source: MacOS known location

[✓] Checking basic markdown render....OK

[✓] Checking Python 3 installation....OK

Version: 3.13.2
Path: /opt/homebrew/opt/python@3.13/bin/python3.13
Jupyter: (None)
Jupyter is not available in this Python installation.
Install with python3 -m pip install jupyter
There is an unactivated Python environment in .venv. Did you forget to activate it?

[✓] Checking R installation.....OK

Version: 4.4.2
Path: /Library/Frameworks/R.framework/Resources
LibPaths:
- /Library/Frameworks/R.framework/Versions/4.4-arm64/Resources/library
knitr: 1.49
rmarkdown: 2.29

[✓] Checking Knitr engine render.....OK

```

## 1.1 Installed packages

```

#| echo: false
#| message: false
pacman::p_load(tidyverse, gt)
installed.packages() |>
  as_tibble() |>
  select(Package, Version, Built) |>
  gt::gt()

```

Package List

Name	Version	Built
askpass	1.2.0	4.4.0
backports	1.4.1	4.4.0
base	4.4.0	4.4.0
base64enc	0.1-3	4.4.0
bigD	0.2.0	4.4.0
bit	4.0.5	4.4.0
bit64	4.0.5	4.4.0
bitops	1.0-7	4.4.0
blob	1.2.4	4.4.0

Name	Version	Built
boot	1.3-30	4.4.0
brew	1.0-10	4.4.0
brio	1.1.5	4.4.0
broom	1.0.5	4.4.0
bslib	0.7.0	4.4.0
cachem	1.0.8	4.4.0
callr	3.7.6	4.4.0
cellranger	1.1.0	4.4.0
class	7.3-22	4.4.0
cli	3.6.2	4.4.0
clipr	0.8.0	4.4.0
cluster	2.1.6	4.4.0
codetools	0.2-20	4.4.0
collections	0.3.7	4.4.0
colorspace	2.1-0	4.4.0
commonmark	1.9.1	4.4.0
compiler	4.4.0	4.4.0
conflicted	1.2.0	4.4.0
cpp11	0.4.7	4.4.0
crayon	1.5.2	4.4.0
curl	5.2.1	4.4.0
cyclocomp	1.1.1	4.4.0
data.table	1.15.4	4.4.0
datasets	4.4.0	4.4.0
DBI	1.2.2	4.4.0
dbplyr	2.5.0	4.4.0
desc	1.4.3	4.4.0
digest	0.6.35	4.4.0
downlit	0.4.3	4.4.0
dplyr	1.1.4	4.4.0
dtplyr	1.3.1	4.4.0
ellipsis	0.3.2	4.4.0
evaluate	0.23	4.4.0
fansi	1.0.6	4.4.0
farver	2.1.1	4.4.0
fastmap	1.1.1	4.4.0
fontawesome	0.5.2	4.4.0
forcats	1.0.0	4.4.0
foreign	0.8-86	4.4.0
fs	1.6.4	4.4.0
gargle	1.5.2	4.4.0
generics	0.1.3	4.4.0
ggplot2	3.5.1	4.4.0
gitcreds	0.1.2	4.4.0
glue	1.7.0	4.4.0
googledrive	2.1.1	4.4.0
googlesheets4	1.1.1	4.4.0
graphics	4.4.0	4.4.0
grDevices	4.4.0	4.4.0
grid	4.4.0	4.4.0
gt	0.10.1	4.4.0
gttable	0.3.5	4.4.0
gtExtras	0.5.0	4.4.0
haven	2.5.4	4.4.0

---

Name	Version	Built
highr	0.10	4.4.0
hms	1.1.3	4.4.0
htmltools	0.5.8.1	4.4.0
htmlwidgets	1.6.4	4.4.0
httr	1.4.7	4.4.0
ids	1.0.1	4.4.0
isoband	0.2.7	4.4.0
jquerylib	0.1.4	4.4.0
jsonlite	1.8.8	4.4.0
juicyjuice	0.1.0	4.4.0
kableExtra	1.4.0	4.4.0
KernSmooth	2.23-22	4.4.0
knitr	1.46	4.4.0
labeling	0.4.3	4.4.0
languageserver	0.3.16	4.4.0
lattice	0.22-6	4.4.0
lazyeval	0.2.2	4.4.0
lifecycle	1.0.4	4.4.0
lintr	3.1.2	4.4.0
lubridate	1.9.3	4.4.0
magrittr	2.0.3	4.4.0
markdown	1.12	4.4.0
MASS	7.3-60.2	4.4.0
Matrix	1.7-0	4.4.0
memoise	2.0.1	4.4.0
methods	4.4.0	4.4.0
mgcv	1.9-1	4.4.0
mime	0.12	4.4.0
modelr	0.1.11	4.4.0
munsell	0.5.1	4.4.0
nlme	3.1-164	4.4.0
nnet	7.3-19	4.4.0
nvimcom	0.9.42	4.4.0
openssl	2.1.2	4.4.0
pacman	0.5.1	4.4.0
paletteer	1.6.0	4.4.0
parallel	4.4.0	4.4.0
pillar	1.9.0	4.4.0
pkgbuild	1.4.4	4.4.0
pkgconfig	2.0.3	4.4.0
pkgload	1.3.4	4.4.0
prettyunits	1.2.0	4.4.0
prismatic	1.1.2	4.4.0
processx	3.8.4	4.4.0
progress	1.2.3	4.4.0
ps	1.7.6	4.4.0
purrr	1.0.2	4.4.0
R.cache	0.16.0	4.4.0
R.methodsS3	1.8.2	4.4.0
R.oo	1.26.0	4.4.0
R.utils	2.12.3	4.4.0
R6	2.5.1	4.4.0
ragg	1.3.0	4.4.0
rappdirs	0.3.3	4.4.0

Name	Version	Built
RColorBrewer	1.1-3	4.4.0
Rcpp	1.0.12	4.4.0
reactable	0.4.4	4.4.0
reactR	0.5.0	4.4.0
readr	2.1.5	4.4.0
readxl	1.4.3	4.4.0
rematch	2.0.0	4.4.0
rematch2	2.1.2	4.4.0
remotes	2.5.0	4.4.0
reprex	2.1.0	4.4.0
rex	1.2.1	4.4.0
rlang	1.1.3	4.4.0
rmarkdown	2.26	4.4.0
roxygen2	7.3.1	4.4.0
rpart	4.1.23	4.4.0
rprojroot	2.0.4	4.4.0
rstudioapi	0.16.0	4.4.0
rvest	1.0.4	4.4.0
sass	0.4.9	4.4.0
scales	1.3.0	4.4.0
selectr	0.4-2	4.4.0
spatial	7.3-17	4.4.0
splines	4.4.0	4.4.0
stats	4.4.0	4.4.0
stats4	4.4.0	4.4.0
stringi	1.8.3	4.4.0
stringr	1.5.1	4.4.0
styler	1.10.3	4.4.0
survival	3.5-8	4.4.0
svglite	2.1.3	4.4.0
sys	3.4.2	4.4.0
systemfonts	1.0.6	4.4.0
tcltk	4.4.0	4.4.0
textshaping	0.3.7	4.4.0
tibble	3.2.1	4.4.0
tidyR	1.3.1	4.4.0
tidyselect	1.2.1	4.4.0
tidyverse	2.0.0	4.4.0
timechange	0.3.0	4.4.0
tinytex	0.50	4.4.0
tools	4.4.0	4.4.0
tzdb	0.4.0	4.4.0
utf8	1.2.4	4.4.0
utils	4.4.0	4.4.0
uuid	1.2-0	4.4.0
V8	4.4.2	4.4.0
vctrs	0.6.5	4.4.0
viridisLite	0.4.2	4.4.0
vroom	1.6.5	4.4.0
withr	3.0.0	4.4.0
xfun	0.43	4.4.0
xml2	1.3.6	4.4.0
xmlparsedata	1.0.5	4.4.0

yaml	2.3.8	4.4.0
------	-------	-------

## 1.2 RStudio Session information

```
#| echo: false
sessionInfo()
```

```
Platform: aarch64-apple-darwin20 Running under: macOS 15.1.1 Matrix products: default BLAS:
/System/Library/Frameworks/Accelerate.framework/Versions/A/Frameworks/vecLib.framework/Versions/A/libBLAS.dylib LAPACK: /Library/Frameworks/R.framework/Versions/4.4-arm64/Resources/lib/libRlapack.dylib
LAPACK version 3.12.0 locale:
[1] en_US.UTF-8/en_US.UTF-8/en_US.UTF-8/C/en_US.UTF-8/en_US.UTF-8
time zone: Asia/Tokyo tzcode source: internal attached base packages:
[1] stats graphics grDevices utils datasets methods base
loaded via a namespace (and not attached):
[1] compiler_4.4.0 tools_4.4.0
```

## Chapter 2

# Setting

1. Setting up with “TBXConfig” note

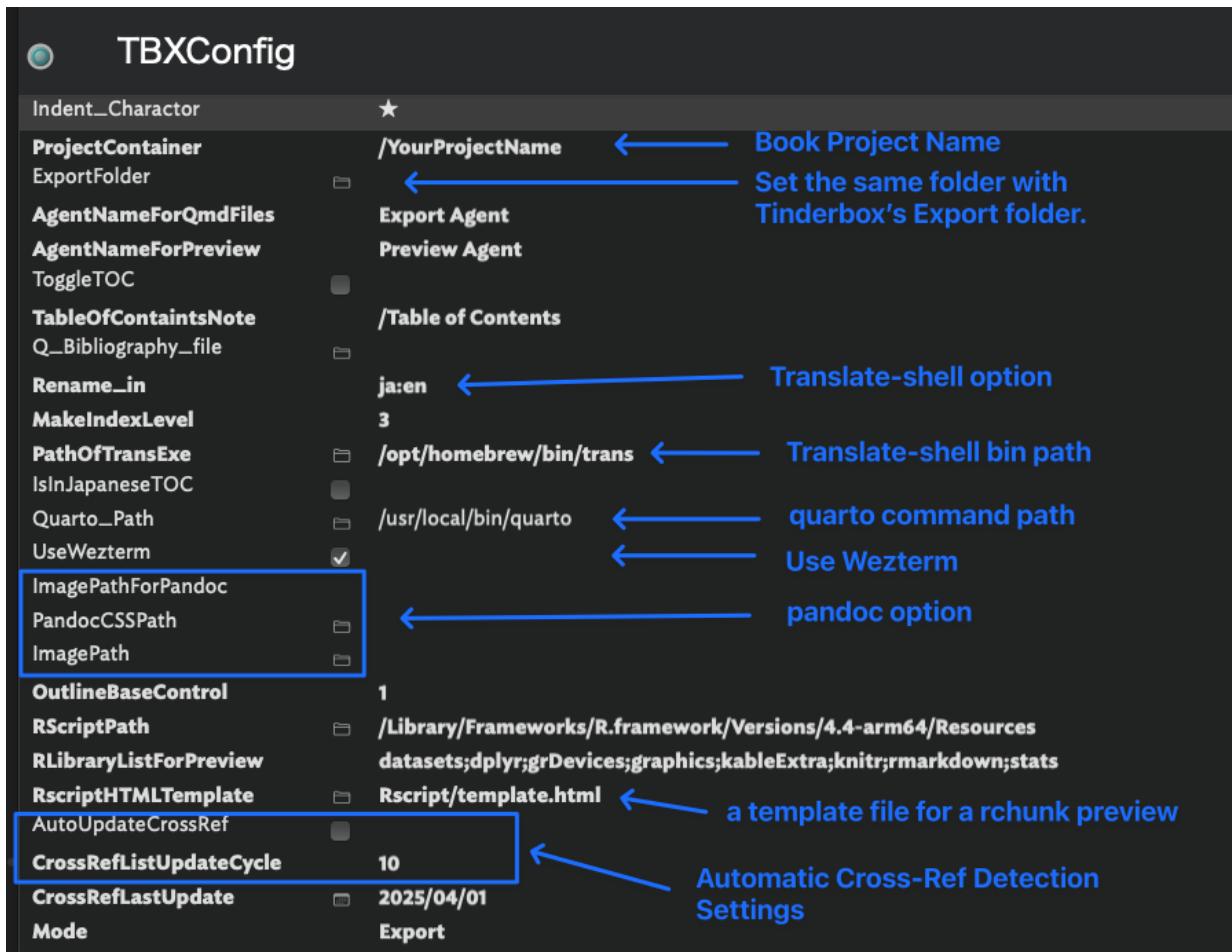


図 2.1: User Attributes in TBXConfig

You need to change the values of the following “TBXConfig” attributes for configuration.

- \$Indent\_Character → Set the symbol representing the depth of indentation. ( default value = ★ )
- \$ExList → List of notes excluded from cross-reference search ( default value = “List and Agent etc” )
- \$ProjectContainer → Book Project Path for CrossRef Search and Label Lists
- \$ExportFolder → Path of exported files.

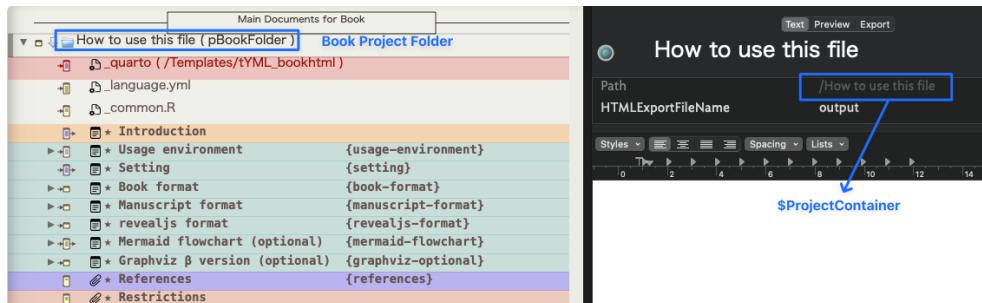


図 2.2: Project Container Example

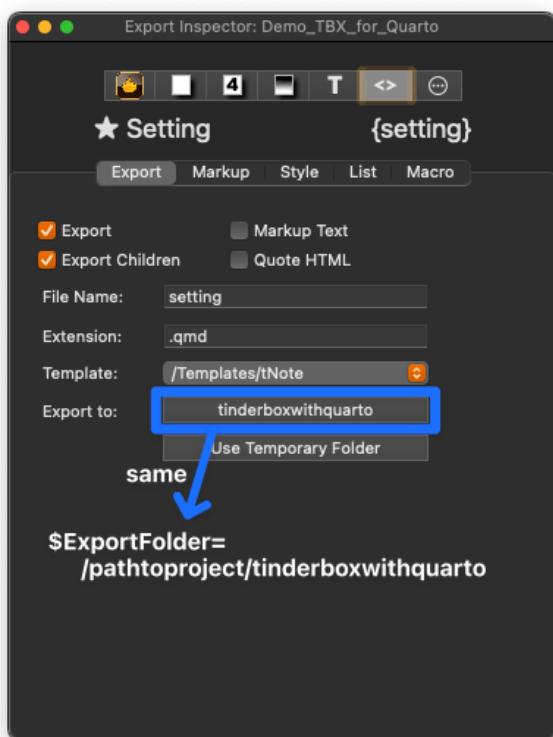


図 2.3: Export Folder Setting

- `$ToggleTOC` → Toggle for Generating TOC. ( default value = false ) You can use quarto option for TOC in `_quarto.yml`.
- `$Q_TableOfContainsNote` → `$Name` of TOC note. ( default value = Table of Contents )
- `$Rename_in` → `translate-shell` option setting ‘[SOURCES]:[TAGETS]’. ( default value = ja:en )
- `$Q_PDFEngine` → Setting for `pdf engine` This file is tested only with lualatex. ( default value = lualatex )
- `$OutlineBaseControl` → Adjustment of section levels in Markdown. ( default = 1 )  
`$OutlineBaseControl` is enabled in Manuscript and revealjs project. This attribute is used in pSubfolderManuscript and pSubfolderRevealjs note. e.g.
  - `$OutlineBaseControl = 1` → ## Title
  - `$OutlineBaseControl = 1` → # Title
- `$RScriptLibraryPath` → R Library Resource Path ( default Value )

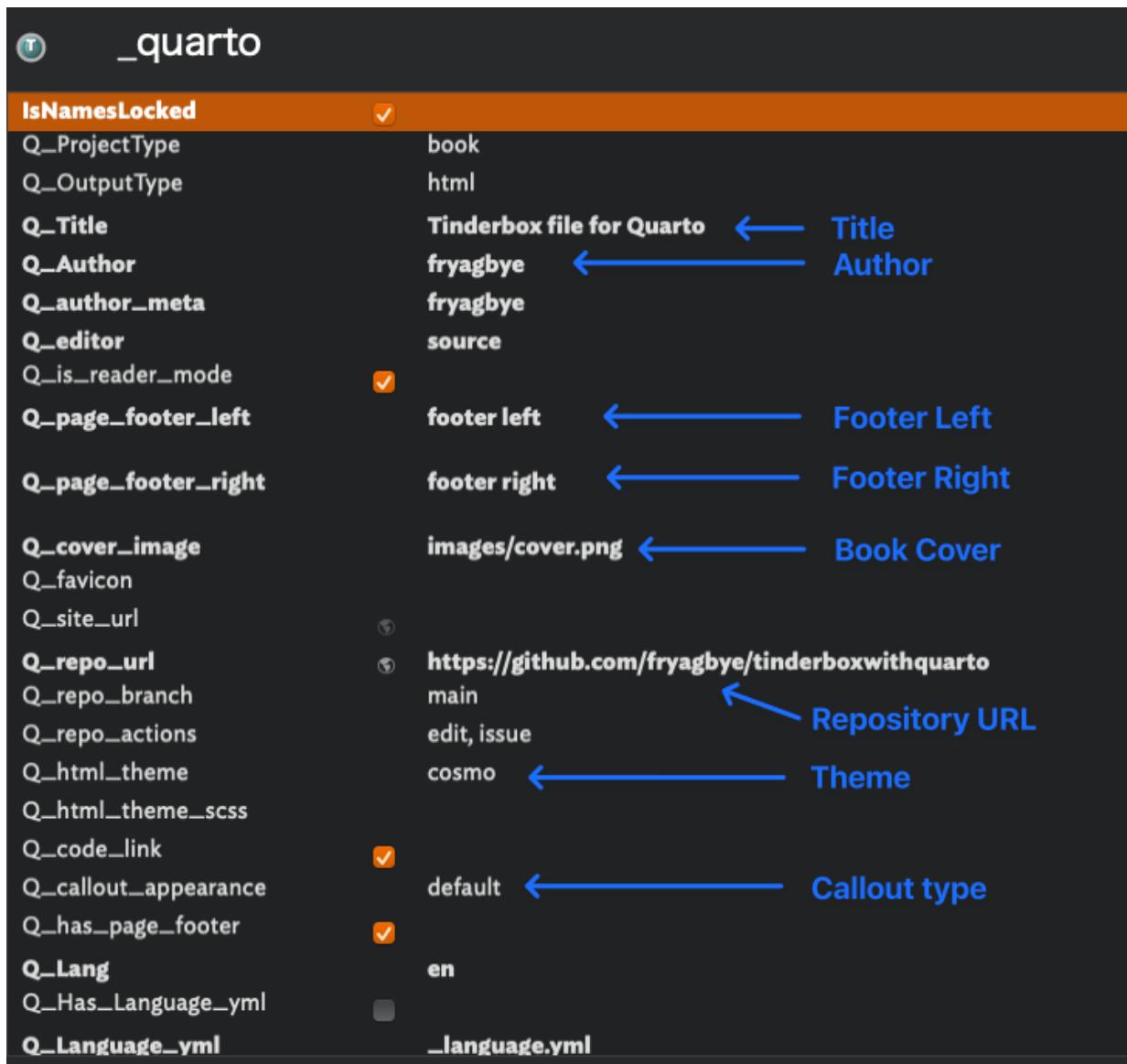
```
[~] Checking R installation.....OK
Version: 4.4.2
Path: /Library/Frameworks/R.framework/Resources
LibPaths:
- /Library/Frameworks/R.framework/Versions/4.4-arm64/Resources/library
knitr: 1.49
rmarkdown: 2.29

[~] Checking Knitr engine render.....OK
```

図 2.4: Rscript Library Path

## 2. Making a `_quarto.yml`

You can change the values of attributes of the “`_quarto`” note to change quarto options. The quarto options are attributes that start with “Q” in this file. The initial setting specified in `_quarto.yml` is for Japanese output. Please refer to [Quarto Book Structure](#) and [PDF Basics](#) in detail. If you use [Custom Translations](#), you need to make `$Q_Has_Language_YML` true and set `$Q_Language_YML` for the filename. The “`_language`” note in this file is for translating to Japanese.

图 2.5: `_quarto.yml` 01

<b>Q_Lang</b>	en	
<b>Q_Has_Language_yml</b>	<input type="checkbox"/>	
<b>Q_Language_yml</b>	<input type="checkbox"/> <b>_language.yml</b>	<b>Language YML (Custom translation)</b>
<b>Q_IsKeepmd</b>	<input type="checkbox"/>	
<b>Q_cache</b>	<input type="checkbox"/>	<b>Cache ON / OFF</b>
<b>Q_ClassOptionHTML</b>	<input type="checkbox"/> fleqn	
<b>Q_Bibliography_file</b>	<input type="checkbox"/> citation/references.bib	<b>Bibliography File Path</b>
<b>Q_BibCSL_file</b>		
<b>Q_HasCitationHover</b>	<input checked="" type="checkbox"/>	
<b>Q_HasTOC</b>	<input checked="" type="checkbox"/>	<b>Toggle Generation of "Table Of Contents"</b>
<b>Q_TOC_Depth</b>	2	
<b>Q_HasNumberSection</b>	<input checked="" type="checkbox"/>	
<b>Q_NumberSection</b>	3	
<b>Q_Filters</b>		
<b>Q_HasLightbox</b>	<input checked="" type="checkbox"/>	
<b>Q_LightboxLoop</b>	<input checked="" type="checkbox"/>	
<b>Q_LightboxMatch</b>	auto	
<b>Q_LightboxDescPosition</b>	bottom	
<b>Q_LightboxEffect</b>	zoom	<b>Lightbox extension options</b>
<b>Q_CodeAnnotations</b>	hover	
<b>Q_Sidebar_Style</b>	docked	
<b>Q_Sidebar_Pinned</b>	<input checked="" type="checkbox"/>	
<b>Q_LinkExternalNewwindow</b>	<input checked="" type="checkbox"/>	
<b>Q_NumberSection</b>	3	
<b>Q_include_in_header_html</b>	<code>&lt;link rel="preconnect" href="https://fonts.googleapis.com"&gt;;</code>	

图 2.6: \_quarto.yml 02

<b>Q_CodeAnnotations</b>	hover	
<b>Q_Sidebar_Style</b>	docked	
<b>Q_Sidebar_Pinned</b>	<input checked="" type="checkbox"/>	
<b>Q_LinkExternalNewwindow</b>	<input checked="" type="checkbox"/>	
<b>Q_NumberSection</b>	3	
<b>Q_include_in_header_html</b>	<code>&lt;link rel="preconnect" href="https://fonts.googleapis.com"&gt;; &lt;link rel="preconnect" href="https://fonts.gstatic.com" crossorigin&gt;; &lt;link href="https://fonts.googleapis.com/css2?family=Noto+Sans+Mono:wght@400;700&amp;display=swap" rel="stylesheet"&gt;; &lt;link href="https://fonts.googleapis.com/css2?family=Noto+Sans+JP:wght@400;700&amp;family=Noto+Sans+Mono:wght@400;700&amp;display=swap" rel="stylesheet"&gt;;</code>	<b>Include in Header</b>
<b>Q_HighlightStyle</b>	base16-atelier-dune	<b>Highlight Style</b>
<b>Q_ReferenceLocation</b>	margin	<b>Output Location</b>
<b>Q_CitationLocation</b>		

图 2.7: \_quarto.yml 03

3. Changing the `_common.R` file. ( optional )  
 You can set up `knitr` package options for R chunk.



# Part I

## "Book format"



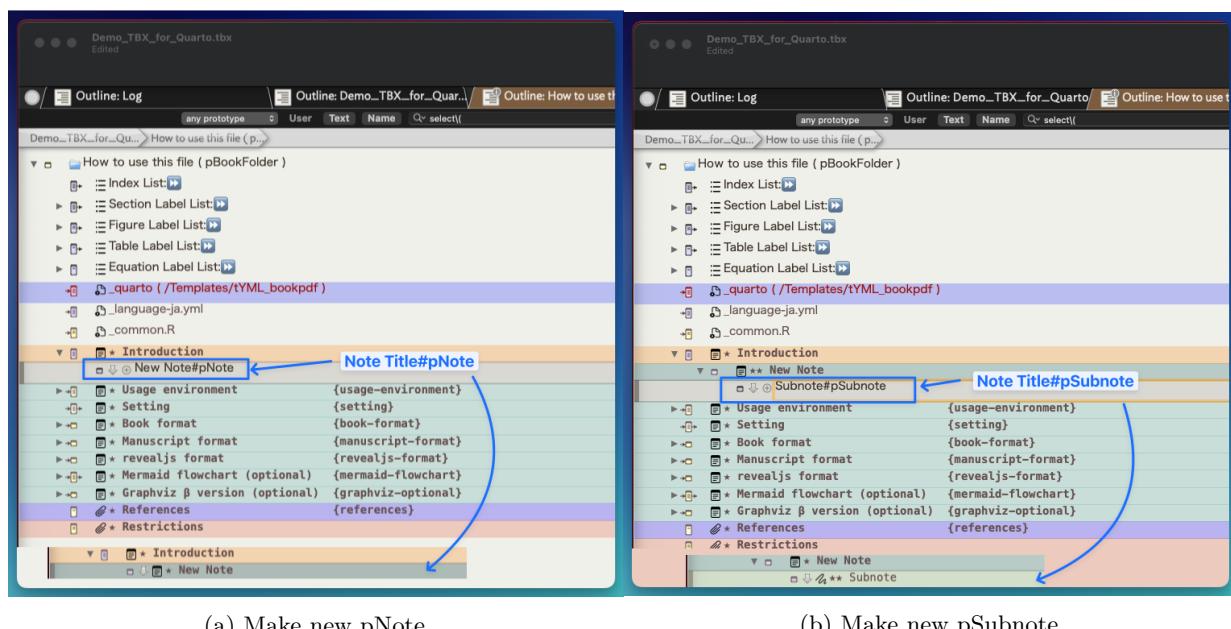
# Chapter 3

## Make new notes

### 1. Make notes with Prototype pNote and pSubnote

pNote is for Sections and pSubnote is for Subsections. Please set the Prototype of pNote to level 1 and pSubnote below level.

- When creating a note, please enter “#pNote” or “#pSubnote” following the title. (or apply the pNote Prototype or pSubnote to notes you make )  
e.g. Note title -> わが輩は猫である#pSubnote  
– The note title (\$Name) is the header for pNote or pSubnote.
- Depending on the hierarchy level, the level of the header also changes.  
e.g. If the title of pSubnote in level 2 depth is “わが輩は猫である”, it will be output as follows when exporting. > ## わが輩は猫である



### 2. Index.qmd

In the quarto book format, **only one index.qmd is required**, \$IsIndexqmd of the index.qmd is set to **true**. You can make the note for index.qmd with the pIndexQmd Prototype or make \$IsIndexqmd of pNote **true**.

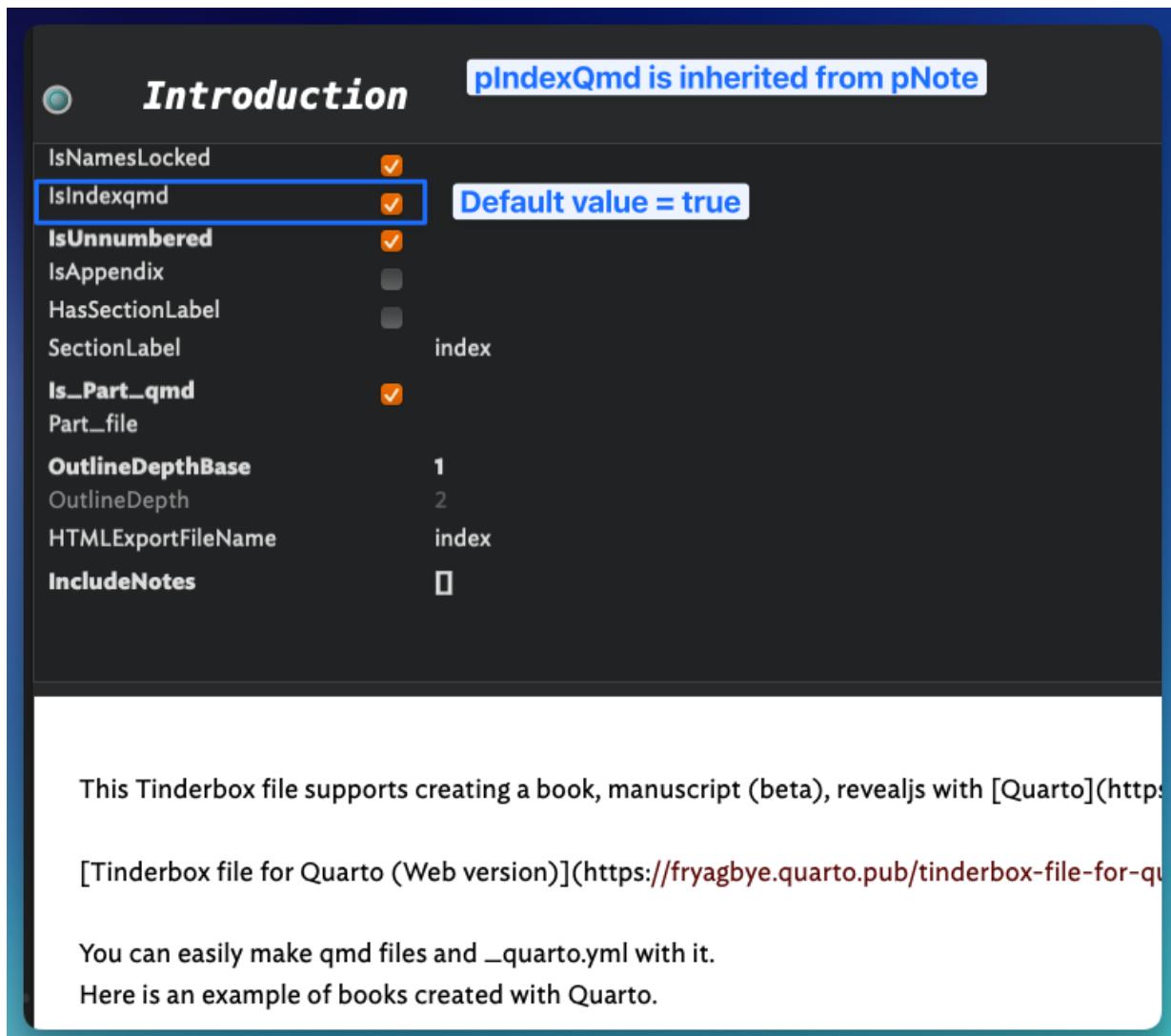


図 3.2: Make the Index.qmd

### 3.1 Special Notes Prototype

#### 1. pReferenceQmd

This prototype is inherited from pNote and \$Text has a div with id `refs` to call a works cited list (below). ([Quarto Bibliography Generation](#)) :::: `{#refs}` ::::

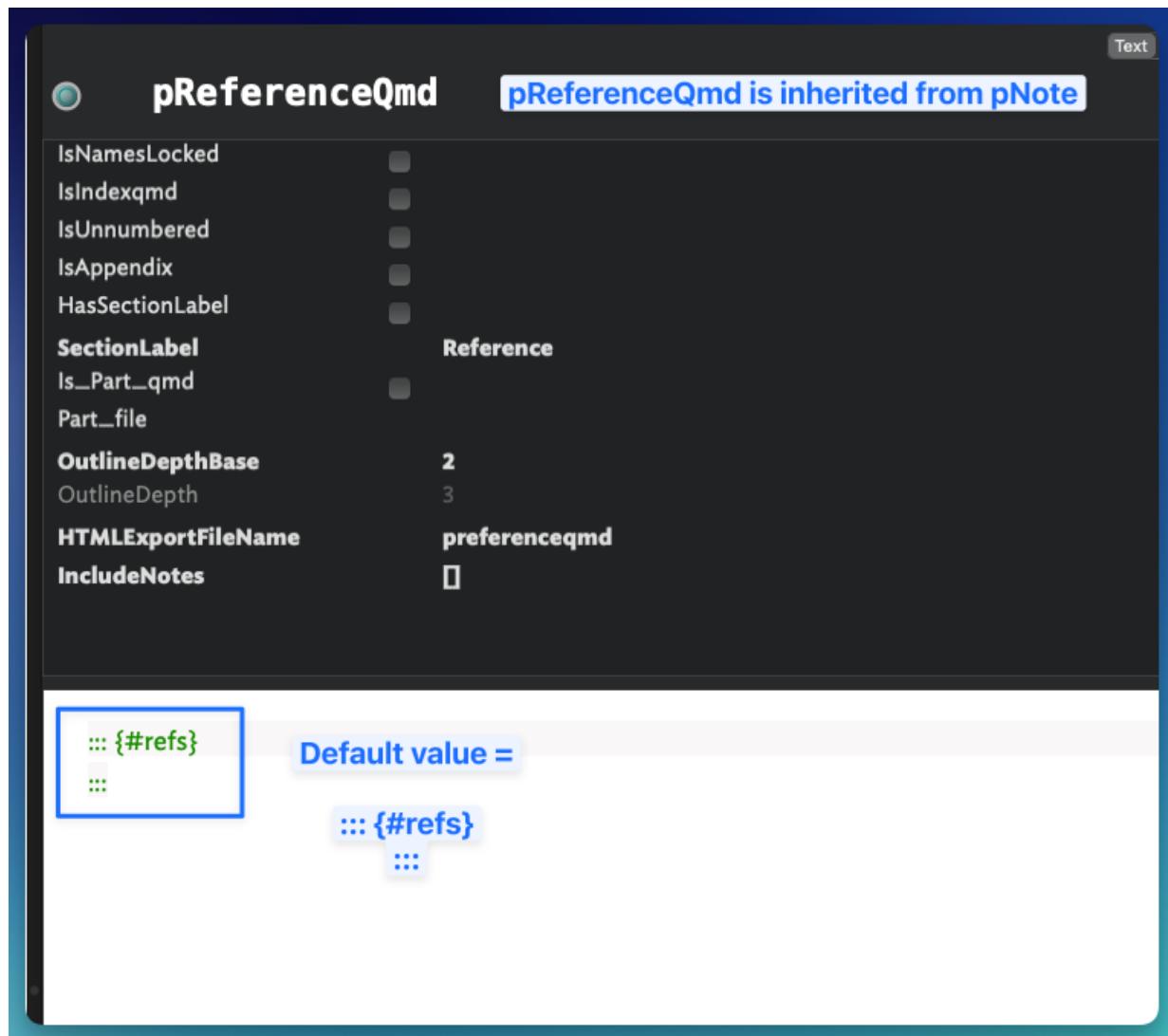


図 3.3: Make a reference note

## 2. pAppendixQmd

This prototype is inherited from pNote and \$IsAppendix is **true**.

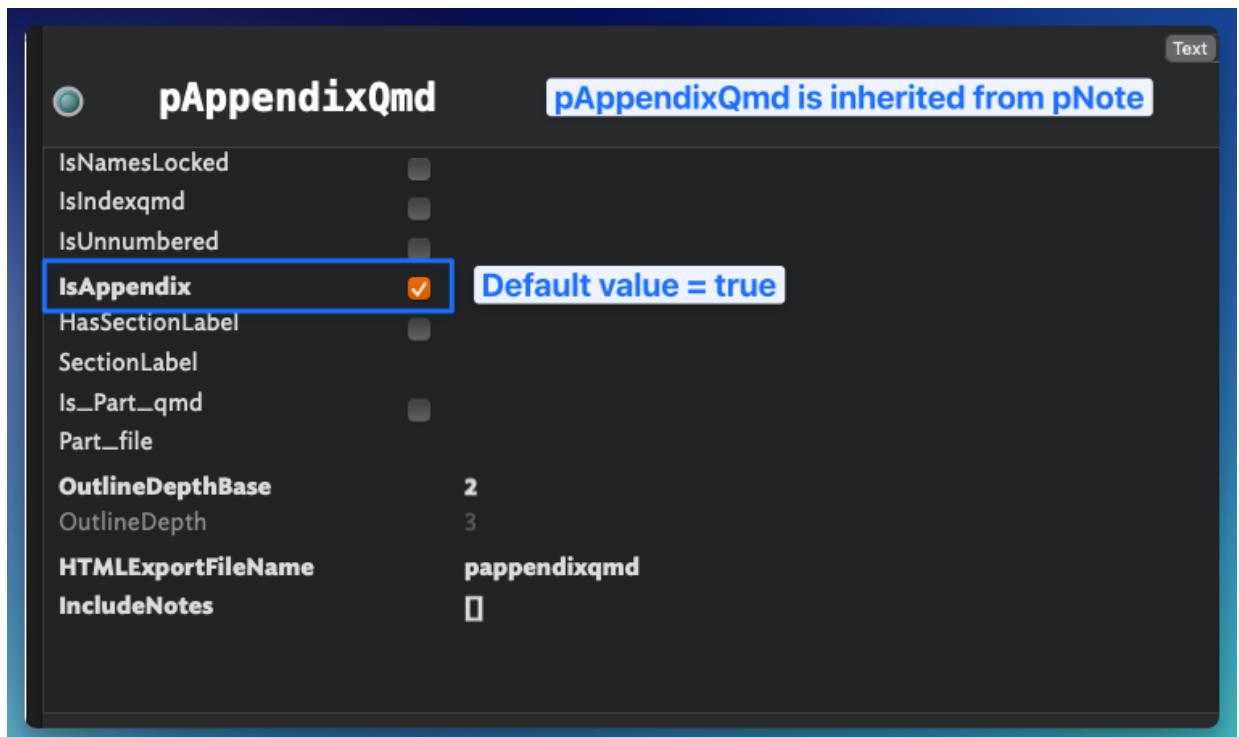


図 3.4: Make a appendix note

# Chapter 4

## Chunks and Graphs

### 1. R chunk and Python chunk notes

You can create a pRChunk for an R chunk and a pPChunk for a Python chunk. The “Chunk & Graph: Make Chunk List” stamp generates a tag like < Lang:Tag Label ➔ Figure Label >. These tags can be used to reference R chunks, Python chunks, Mermaid diagrams, or Graphviz code. Please do not insert tags in the middle of a sentence.

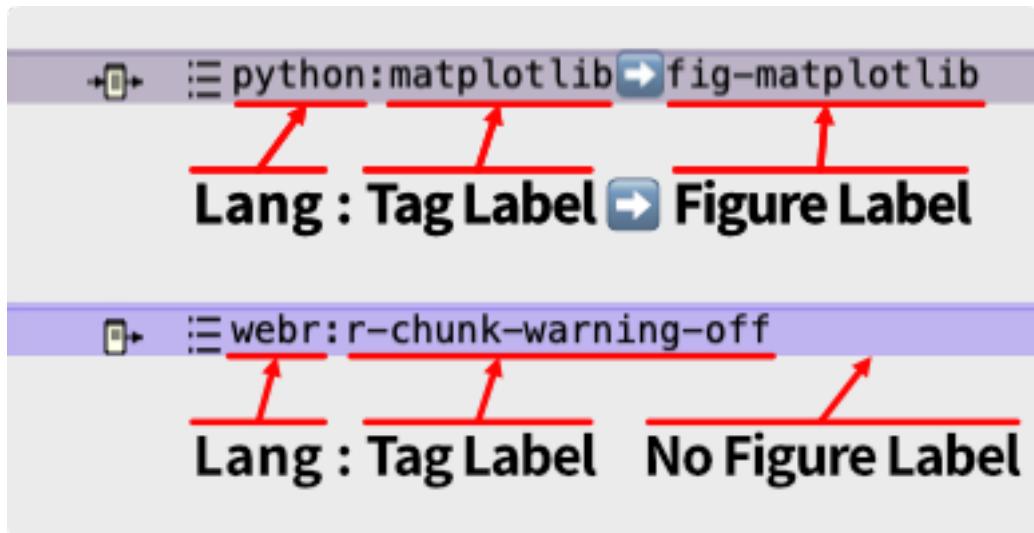


図 4.1: Chunk Tag Example

If tags called in your notes are changed or deleted, the warning is shown. you can suppress the warning with `$SuppressTagWarning` in the project container note.

### 2. Rendered Preview in Text Pane(R chunks, Mermaid diagrams, and Graphviz only)

You can check the results of the code executed within an R chunk in the Preview screen. Similarly, the results of Mermaid and Graphviz code can also be displayed. However, this is not possible for Python.



## Chapter 5

# Rename HTMLExportFileName of a note with translation

There is a stamp “**Notes: Tranlate Section Labels**” that translates the Japanese title (\$Name) into English and automatically sets \$HTMLExportFileName <sup>\*1</sup>. and you can set \$SectionLabel with stamp “Set: Section Label”. The labels of the section cannot be duplicated, so please modify them manually if necessary. In addition, you can change the language to be translated with \$Rename\_in in the TBX configuration note (**TBXConfig**). ( By default, from Japanese to English).

```
> brew install translate-shell
```

---

<sup>\*1</sup> [Translate-shell](#) installation required.



# Chapter 6

## Part in Book format

For Part, please refer to [Quarto's "Book Structure" reference](#). pNote is compatible with quarto's **Part** or **Chapter**. If pNote is at the bottom of pNote, the top pNote will be Part (Part ○), and the lower pNote will be Chapter (Chapter ○). You can place pNote at hierarchical level 2 only if you are under pNote of hierarchy level 1. In this case, the hierarchy level and header level are different, so the header level is set based on the user attribute `$OutlineDepthBase`. pNote, which is treated as a Part, is turned on (`true`) for `$Is_Part_qmd`. The lower pNote contains the export file name (e.g. `filename.qmd`) of the pNote, which is Part, in `$Part_file`. If a Part note is empty, only the title (`$Name`) of the note is reflected in `_quarto.yml`, as shown in the “**Dice**” in the example below. If the `dice.qmd` is not empty, the part title (as a level one header) as well as some introductory content for the part.

```
#_quarto.yml
chapters:
  - index.qmd
  - preface.qmd
  - part: "Dice" # if $Text("Dice").wordCount == 0
    chapters:
      - basics.qmd
      - packages.qmd
```

```
#_quarto.yml
chapters:
  - index.qmd
  - preface.qmd
  - part: dice.qmd # if $Text("Dice").wordCount >0
    chapters:
      - basics.qmd
      - packages.qmd
```

The figure below shows the export example when Part is supported and the output result of `_quarto.yml`.

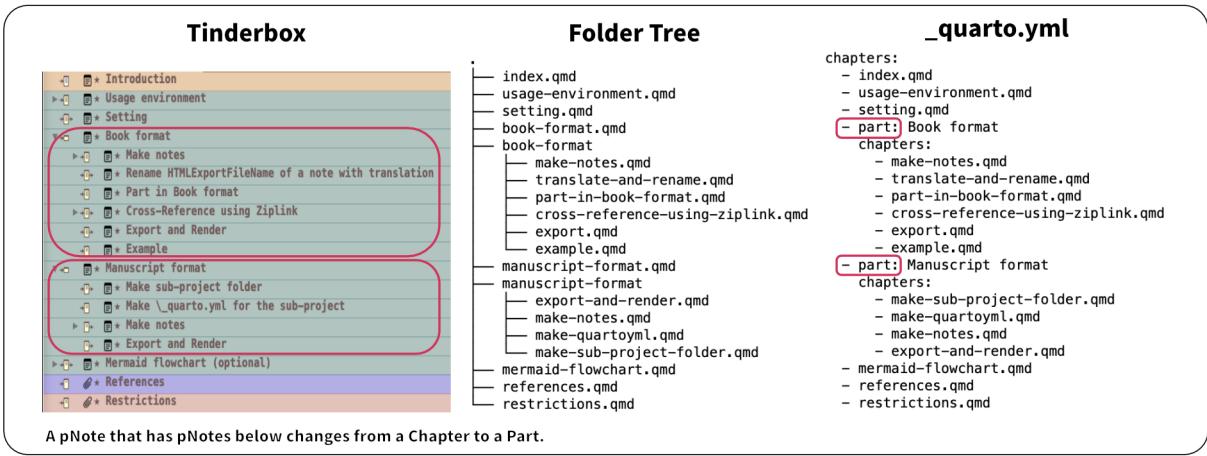


図 6.1: Folder configuration at the time of output and `_quarto.yml`

## Chapter 7

# Cross-Reference using Ziplink

In Quarto, labeled diagrams, tables, etc., can be mutually quoted. Label Lists are collected automatically (or manually). <sup>\*1</sup>

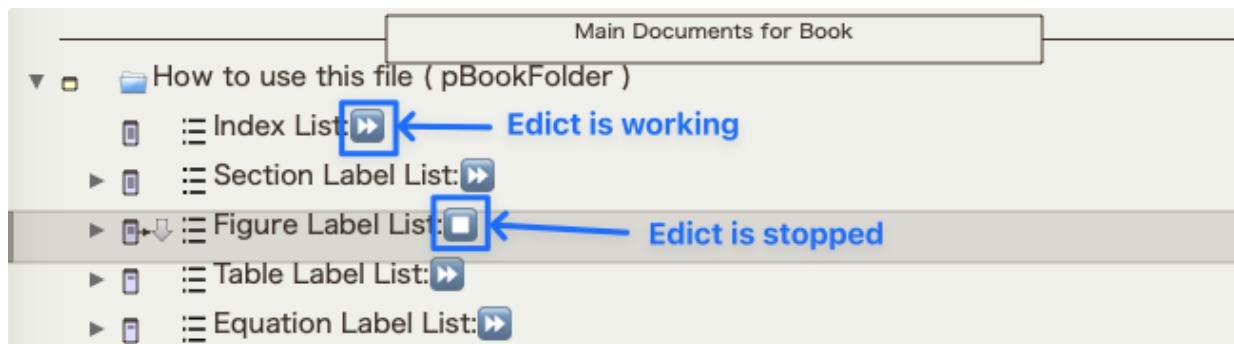


図 7.1: Label Lists and Working indicator( or ) for collecting automatically or not.

Convert it to a quotable title (citation name starting with @) and create a note for the corresponding part. Tinderbox's **Ziplink** function <sup>\*2</sup> is a function for easily pasting links to notebooks. It is diverted to make it easy to enter the quoted name. This makes it relatively easy to find and enter the quoted label even if the number increases.

## 7.1 How to set the label of the diagram

### 7.1.1 Image link in markdown format

Recognize and collect labels in a format that extends the markdown. ![Test image](screenshots/tool-bar.png){#fig-test fig-alt="test" fig-align="left" width=100%}

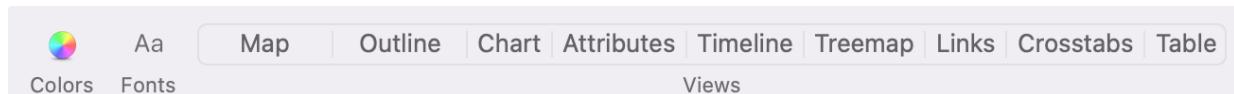


図 7.2: label: 図 7.2

## 7.2 R chunk

Automatically recognize and collect R chunk labels in the following format (#| label: fig-xxx-ooo, etc.). The method of specifying a label in the curly bracket ({r fig-xxx-ooo}) is not supported. In the following example, you can quote 図 7.3.

<sup>\*1</sup> The diagrams and tables are extracted in regular expressions.

<sup>\*2</sup> Please refer to "Text link creation via the Ziplinking method" in [A Tinderbox Reference File](#). (Anderson (2024))

```
library(ggplot2)
ggplot(airquality, aes(Temp, Ozone)) +
  geom_point() +
  geom_smooth(method = "loess")
```

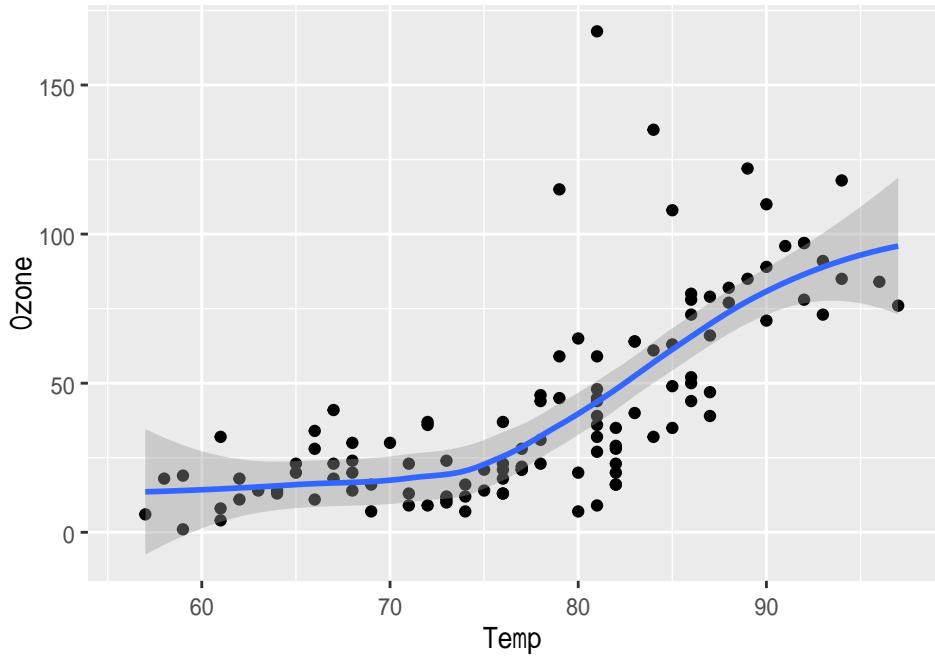


図 7.3: Temperature and ozone level.

### 7.3 Python chunk

```
import numpy as np
a = np.arange(15).reshape(3, 5)
a

array([[ 0,  1,  2,  3,  4],
       [ 5,  6,  7,  8,  9],
       [10, 11, 12, 13, 14]])

import matplotlib.pyplot as plt
fig = plt.figure()
x = np.arange(10)
y = 2.5 * np.sin(x / 20 * np.pi)
yerr = np.linspace(0.05, 0.2, 10)

plt.errorbar(x, y + 3, yerr=yerr, label='both limits (default)')
plt.errorbar(x, y + 2, yerr=yerr, uplims=True, label='uplims=True')
plt.errorbar(x, y + 1, yerr=yerr, uplims=True, lolims=True,
             label='uplims=True, lolims=True')

upperlimits = [True, False] * 5
lowerlimits = [False, True] * 5
plt.errorbar(x, y, yerr=yerr, uplims=upperlimits, lolims=lowerlimits,
```

```
label='subsets of uplims and lolims')

plt.legend(loc='lower right')
plt.show(fig)
```

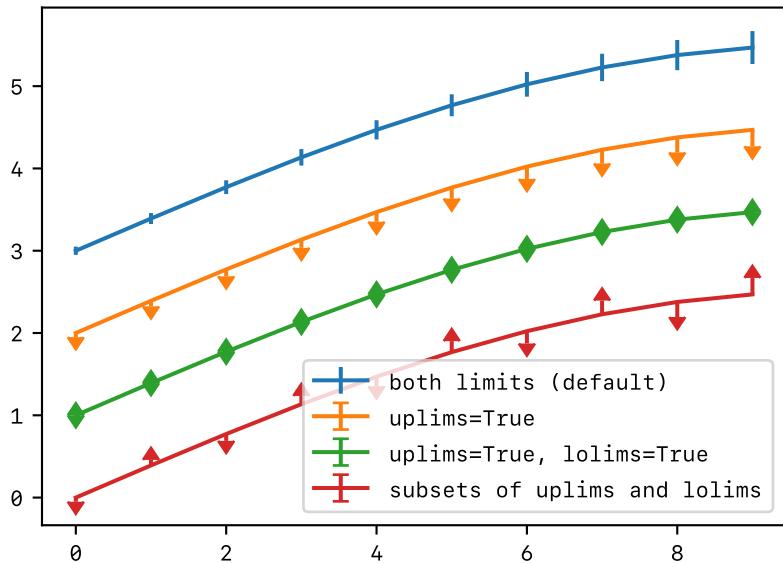


図 7.4

## 7.4 How to set the label of the table

There are multiple ways to specify labels, but they are only supported if it is a table in markdown format and the label name is above, as shown in the example below.\*<sup>3</sup>

```
: 明度・彩度の修飾子 {#tbl-brightness-saturation}

|項目|効果|
|----|-----|
|dark|暗くする|
|darker|より暗くする|
|darkest|最も暗くする|
|light|明るくする|
```

表 7.1: 明度・彩度の修飾子

項目	効果
dark	暗くする

\*<sup>3</sup> For other formats, please refer to [quarto cross-reference](#).

項目	効果
darker	より暗くする
darkest	最も暗くする
light	明るくする

## 7.5 Equations

Equation Example Black-Scholes (式 7.1) is a mathematical model that seeks to explain

- Input

```
$$
ma^2S^2 \partial^2C / \partial S^2 + rS \partial C / \partial S = rC
$$
```

- Output

$$ma^2S^2 \frac{\partial^2C}{\partial S^2} + rS \frac{\partial C}{\partial S} = rC \quad (7.1)$$

## 7.6 How to quote

If you enter two square brackets “[]”, the list will be displayed, so please enter a part of the label name. As the candidates are narrowed down, select the citation label you want to enter.

表 7.2: How to quote

Types of quotations	Lable	Quote
Chapters, Sections etc.	#sec-	@sec-
Figures	#fig- #  label:fig-%%  label:fig- //  label:fig-	@fig-
Charts	#tbl-	@tbl-
Equations	#eq-	@eq-

## 7.7 Dummy links for cross-reference

You can create dummy links showing where each cross-reference, starting with the @ symbol in the section, figure, and table label lists, is cited.

1. execute the “Labels: Make Dummy Link Data For Cross-Reference” stamp
2. select cross-ref label notes ( start with “@” ) and execute the “Labels: Dummy Link between Reference and Selected notes” stamp.

## 7.8 Restrictions on quoted labels

- The label before change or deletion remains because it cannot be detected even if the quoted label name is changed or deleted.
- Cross-ref detection is carried out by regular expression. If it is executed in the middle of input, it will be duplicated with a short label.

In this case, if necessary, delete the quoted label name in Stamp and perform the detection manually by following the steps below.

1. Labels: Clear Cross-Reference List (Delete all citation labels under the Reference List.)
2. Labels: Make Cross-Reference List (Re-detect the quoted label.)



## Chapter 8

# Export and Render

### 1. Export \_quarto.yml

You can change the output format to “pdf” or “html” with the stamp “Change quarto.yml template”. If you use a \_language.yml, you export “\_language” note (optional. See チャプター 2 Setting)

### 2. Export .qmd files ( pNote notes only)

The pSubnote at the bottom of pNote at the time of output is all output as one qmd file in the state contained when pNote is exported. Therefore, it is OK to export by selecting only pNote to the “output” folder. In addition, pSubnote does not require output, but if you export, it is set to output as a text file (extension .txt). If you select the pNote notes below “Export Agent” and output it, then execute the “Move qmd files” stamp, you can overwrite the qmd file directly to ./output (= \$HTMLExportFileName of your project folder) (図 8.1). This method avoids considering the folder structure when referencing image files with a relative path.

```
./your Project Path = Export Path
├── _extensions/ ← quarto-live extension
├── citation/
├── myproject/ ← Subproject(Manuscript)
├── myrevealjs/ ← Subproject(revealjs)
├── output/ ← Subproject(Book)
├── Rscript/
│   ├── _RchunkPreviewOutput.html
│   └── _RchunkPreviewOutput.qmd ← intermediate files for RScript Preview
├── Demo_TBX_for_Quarto.tbx
└── tinderboxwithquarto.Rproj ← RStudio Project File
    ├── poetry.lock ← For Poetry
    └── pyproject.toml
```

図 8.1: Folders

### 3. Preview HTML output.

- Terminal application

```
# preview
# quarto preview projectname (quarto command options)
e.g.
> quarto preview output
```

\* The stamp "Quarto: Book Preview ( Select Export Agent )"

```
~/github/tinderboxwithquarto on Qmain [x!?] is v0.1.0 pyenv via v1.7.19 via v4.4.3 arm64
> quarto preview output
Preparing to preview

Watching files for changes
Browse at http://localhost:6664/
GET: /
```

図 8.2: Example: Quarto Preview

4. Render pdf or html.
  - Terminal application

```
> quarto render output
```

```
~/github/tinderboxwithquarto on Qmain [x!?] is v0.1.0 pyenv via v1.7.19 via v4.4.3 arm64
> quarto render output
[ 1/17] index.qmd
[ 2/17] usage-environment.qmd
[ 3/17] setting.qmd
[ 4/17] make-notes.qmd
[ 5/17] chunks-and-graphs.qmd
[ 6/17] rename-htmlexportfilename-of-a-note-with-translation.qmd
[ 7/17] part-in-book-format.qmd
[ 8/17] cross-reference-using-ziplink.qmd
[ 9/17] export.qmd
[10/17] example.qmd
[11/17] make-manuscript-subproject.qmd
[12/17] export-and-render.qmd
[13/17] make-revealjs-subproject.qmd
[14/17] mermaid-flowchart.qmd
[15/17] graphviz-optional.qmd
[16/17] references.qmd
[17/17] restrictions.qmd

Output created: _bookhtml/index.html
```

図 8.3: Example: Quarto Render

\* The stamp "Quarto: Book Render ( Select For Export )"

You can use RStudio for preview and render.

# Chapter 9

## Example

[Example HTML](#)  
[Example PDF](#)



## Part II

### "Manuscript format"



# Chapter 10

## Make sub-project folder

Make a note for the sub-project with **pSubfolderManuscript** like this ( `_quarto_manuscript` ).

### 10.1 Make notes

The manuscript has only one qmd file. The qmd file name is set in `_quarto.yml` (`_quarto_manuscript`).

#### 10.1.1 Front Matter and Subnote

##### 1. pFrontmatterManuscript

This is a qmd file that contains a Front Matter. When you export, it has contents of descendants.  
You can set data for author(s) with the path of note with pAuther notes. ( like Authors )

##### 2. pSubnoteManuscript

This is a dummy file for pFrontmatterManuscript. The markdown level depends on the indent level  
and `$OutlineBaseControl` of the subproject folder.

```
($OutlineDepthBase + $OutlineBaseControl(collect(ancestors,$Path)[-1])) * "#"
```



## Chapter 11

# Export and Render

### 1. Export

You have to export `_quarto.yml` (`_quarto_manuscript`) and one `qmd` (`main`) in the sub-project folder.

### 2. Activate a virtual environment

if you use a virtual environment, activate it. e.g.

```
> poetry shell
```

### 3. Render sub-project

```
# quarto render "your project name"
> quarto render myproject
# For preview
> quarto preview myproject --to html
```



# Part III

## "revealjs format"



# Chapter 12

## Make sub-project folder

Make a note for the sub-project with **pSubfolderRevealjs**.

### 12.1 Front Matter and Subnote

1. pFrontmatterRevealjs

This is a qmd file that contains a Front Matter. When you export, it has descendants' contents.

2. pSubnoteRevealjs

This is a dummy file for pFrontmatterRevealjs. The markdown level depends on the indent level and `$OutlineBaseControl` of the subproject folder.

```
($OutlineDepthBase + $OutlineBaseControl(collect(ancestors,$Path) [-1])) * "#"
```

3. Quote chunk code blocks

You can chunk code blocks with a quote tag like the one below from a child note (pRChunk or pPChunk).

### 12.2 quarto-live extention (β version)

This file supports [quarto-live](#). You add the quarto-live extension to your subproject path. (If you add it to the project root folder and call it with a relative path, an error will occur.)

### 12.3 Example

[Example live-revealjs](#)



## Chapter 13

# Mermaid flowchart (optional)

This file can generate Mermaid flowchart from notes, links.

- Container notes -> Subgraphs ( pMFSUBGRAPH )
- Non Container notes -> Nodes ( pMFNode )

Work Flow is a sample of Mermaid flowchart.

Please check it in Map view. You need to use pre-release version <sup>\*1</sup>

### 13.1 How to use

1. You make a container note for Flowchart and set pMFContainer.
2. You make notes ( pMFNode ) and links.
3. You choose a direction for drawing like TD or LR.(\$M\_Direction)
4. Run the stamp ( **Mermaid: Make a Flowchart** ).
5. Prototypes of container notes **has** a child note change from pMFNode to pMFContainer automatically by the stamp.
6. The note (pMFContainer) has the code for mermaid flowchart.

---

<sup>\*1</sup> Since the old headless mode has been removed from Chrome 132, Quarto v1.7.13 or later is required.([Transition to Chrome new headless mode · Issue #10532 · quarto-dev/quarto-cli](#))

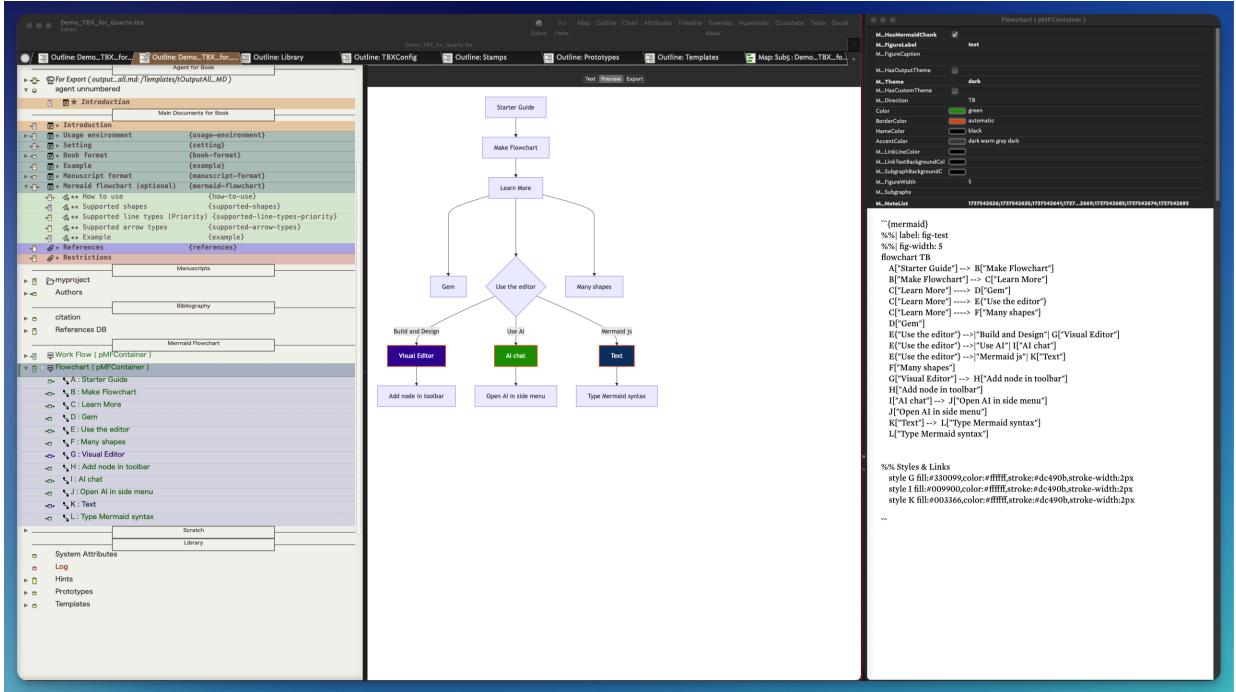


図 13.1: Tinderbox with Quarto part2 (English &amp; Japanese sub)

## 13.2 Supported shapes

- rectangle (<- normal and other shapes)
- rounded
- oval
- lozenge
- diamond
- hex

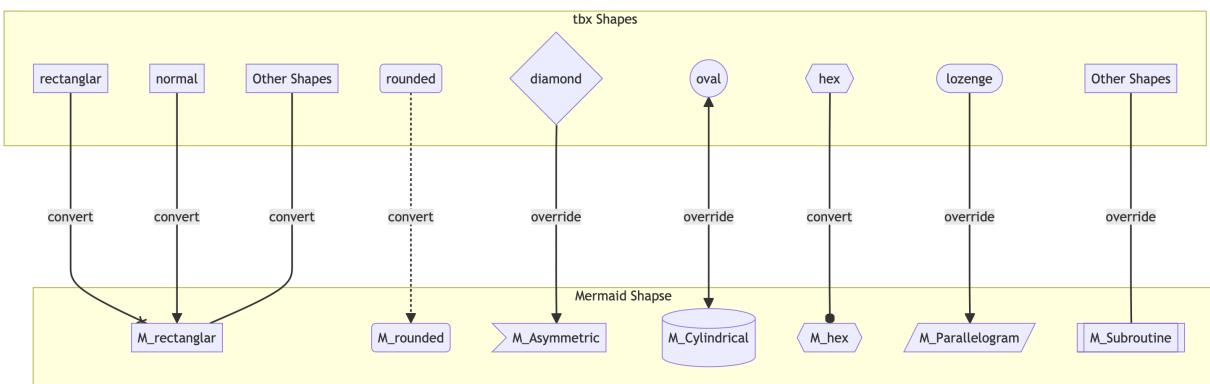


図 13.2: Convert shapes

## 13.3 Supported line types (Priority)

- normal -> (4th)
- bold ==> (3rd)

- dotted `-.->` (2nd)
- invisible `~~~` (1st)

## 13.4 Supported arrow types

- arrow only

## 13.5 Example

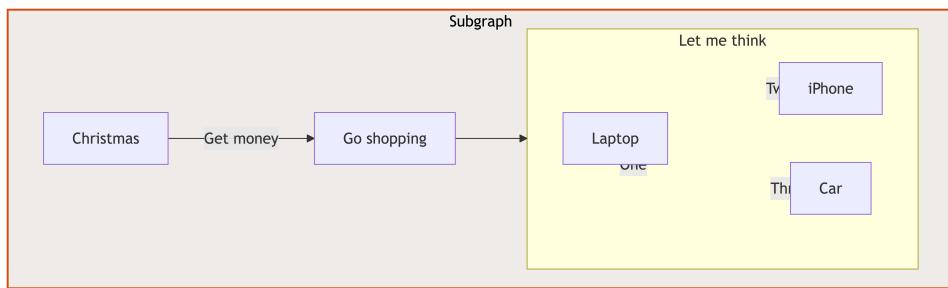


図 13.3



# Chapter 14

## Graphviz β version (optional)

### 14.1 How to use

1. You make a container note for the graph and set pGContainer.
2. You make notes ( pGNode ) and links. **You can't make links to cluster (subgraph).**
3. You choose a direction for drawing like TB or LR.(\$GG\_Rankdir)
4. You can choose a Layout Engin like **dot**, **neato**, **fdp** and so on.
5. Change attributes for Graphviz.
  - Attributes starting with **GG\_** are for the Subgraph ( cluster ) options
  - Attributes starting with **GN\_** are for the Note options
  - Attributes starting with **GE\_** are for the Edge options
6. Run the stamp ( **Graphviz: Make a Dot graph** ).
7. Prototypes of container notes have a child note change from pGNode to pGContainer automatically by the stamp.
8. The note (pGContainer) has the code for Graphviz.

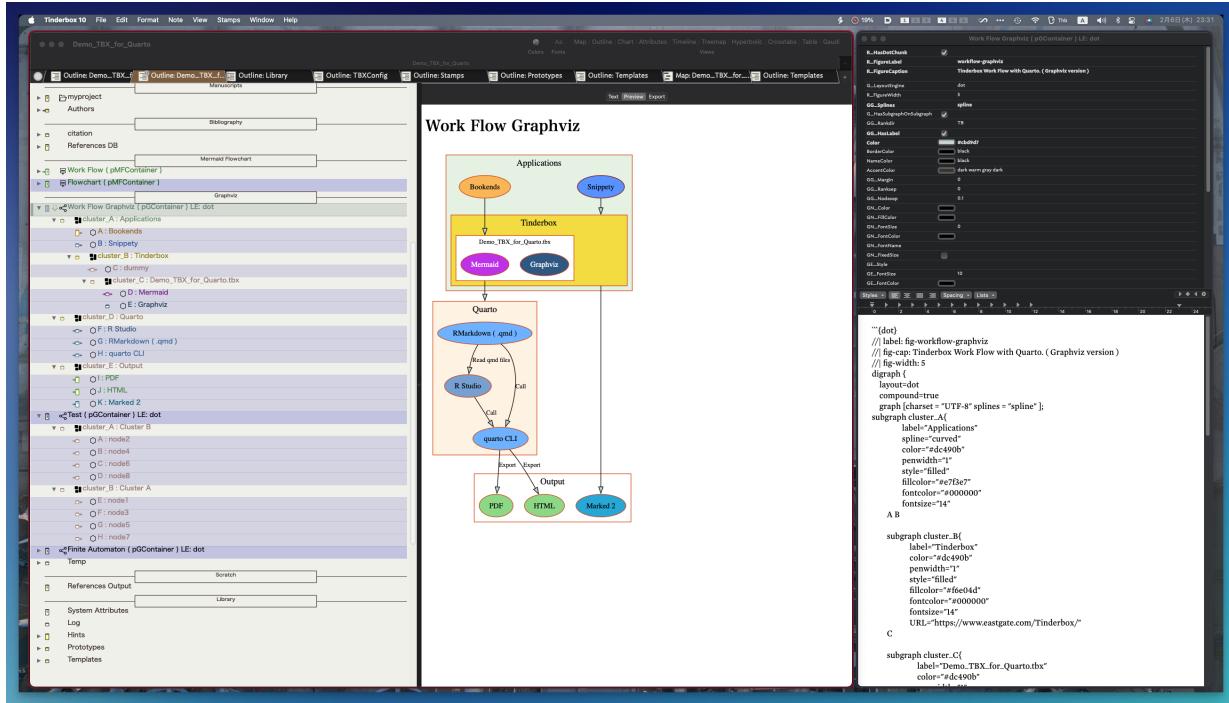


図 14.1: Tinderbox with Quarto part3

## 14.2 Example

図 2 and 図 14.2.

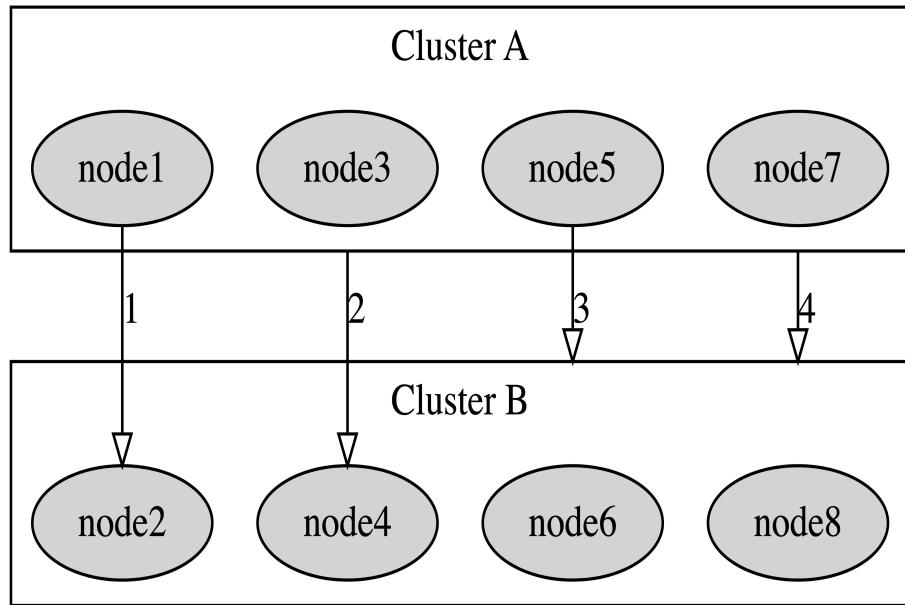


図 14.2: Graphviz Test

## Chapter 15

## References

- Anderson, Mark. 2024. “A Tinderbox Reference File.” 2024.
- Wickham, Hadley, and Garrett Grolemund. 2016. *R for Data Science: Import, Tidy, Transform, Visualize, and Model Data*. “O’Reilly Media, Inc.”



# Appendix A

## Restrictions

It seems that the section label customization function cannot be used in the latest release [ref. Cross-references on unnumbered pages fail \(PDF\) or are mislabeled \(HTML\)](#). If you turn on `$IsUnnumbered` and `$HasSectionLabel`, the display of the quote will be fixed to the number + title, so please turn off `$IsUnnumbered`. Please do not use parentheses in note titles. The section label list is not being generated correctly.