Doc#19072501

A digital template for my notebook

At some point in July, 2019, I got the idea of maybe developing a digital version of my note taking method, using X∃LATEX. I hope it could be easy and efficient to use and the same time it keeps all the features of my original on-paper note taking method. If this is possible, then I can get rid of a heavy notebook being carried all the time and yet I can still take notes like I have been doing.

The template is based on the `tufte-book` class.

font settings and usage

Language	Style	Font	Examples
Latin	Serif	Bembo	ABC123
	Sans Serif	GillSans	**ABC123**
	Monospace	Menlo	ABC123
CJK	Serif	SourceHanSerif	汉字かな한글
	Sans Serif	SourceHanSans	汉字かな한글
	Monospace	SourceHanMono	汉字かな한글

The default CJK glyphs are for Simplified Chinese. To change them for a specific CJK language, use the following commands:

```
\jp  % Japanese: 骨文才免返曜

\kr  % Korean: 骨文才免返曜

\sch  % Simplified Chinese: 骨文才免返曜

\tch  % Traditional Chinese: 骨文才免返曜
```
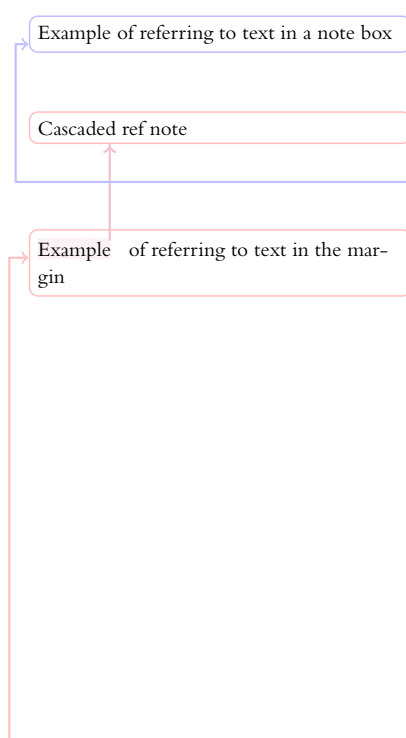
other useful commands:

```
\coding  % Menlo + Source Han Mono
\sansall % Source Han Sans for all chars
\sans % GillSans + Source Han Sans
```

Example of referring to text in a note box

Cascaded ref note

Example of referring to text in the margin

Doc#19072801

Continue on Doc#19072501 – reference notes

Drawing arrows to refer to some text is a very frequent in my notes. This example links to the reference note on the margin of this page. It is done by:

```
% \clearpage
  \rfnote[<offset>]{<ref id>}{<color>}{<text>}
  \begin{notebox}/
    \markintext{<red id>}{<color>}{<text>}
  \end{notebox}
```

`<offset>` means to adjust the end point of the arrow on the ref note. We need this because there is some unknown bug on getting the exact position of a tikz node on the margin. However, this is optional. It should be something like `0.8cm`. `<offset>` must be an integer. `<color>` can be `blue`, `red`, etc. The two `<text>`s are linked texts.

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I also want to allow cascading as well. This is an example. It is done by:

```
% \clearpage
\rfnote[<offset>]{<ref id #1>}{<color>}{<text>}
\rfnote[<offset>]{<ref id #2>}{<color>}{
    \markinmargin{<ref id #1>}{<color>}{<text>}}
\begin{notebox}{<title>}
    \markintext{<ref id #2>}{<color>}{<text>}
\end{notebox}
```

Note that when the linked `<text>` is in the margin, then you should use `\markinmargin` instead of `\markintext`.

I recommend using the same color for a whole cascading chain so that it is clear to see.

To structure a note

The main part of a note is located in a note box environment. we can use blue-background subtitles and dash lines to structure a note. The related commands are:

```
\begin{notebox}{<title>}
    \tcbsubtitle{<subtitle>}
    \tcbline  % dash line
\end{notebox}
```

Doc#1907290I

vertical texts

Since CJK texts can be formatted vertically, I think it is beneficial to have a simple command to do that.

这，是一句中文竖排字符。

これは、縦書きの文字です。

不建议用半角字符 ABC123

建议用全角的ＡＢＣ１２３

令元年七月二十九日。

To do this, use:

```
\cjkvert[<commands>]{<vertical length>}{<text>}
```

For example, to get the above output, `<commands>` should be `\sans` and `<vertical length>` should be `0.45\textwidth`

- -

I aslo want to use Furigana when I am writting some Japanese texts. You can do this as the following example:

```
\ruby{外貨}{がいか}預金には、
\ruby{為替}{かわせ}差益や為替差損があります。
```

The result is:

外貨預金には、為替差益や為替差損があります。

Doc#1907300I

expand the note box to the whole page

We can do this using the `fullwidth` environment provided by `tufte-book` package itself outside the `notebox` environment. ref note should still work.   However, I don't recommend expanding the note box when using ref notes because some ref notes maybe hidden by the note box.

Doc#19080201

Q&A

Q&A is a very effective way of taking notes. It helps you to get the point of a note very quickly because knowledge is essentially about answering questions. If there are no questions, there is no knowledge.

> Q2: The question goes here
>
> A2: The answer goes here

To do this, use the following command:

```
\qa[<q&a id>]{<question>}{<answer>}
```

Doc#19010101

Updates on the template

We now make **Bold** and *Italic* fonts possible. Here is an example list for both Latin and CJK characters.

Language	Style	Bold	Italic
Latin	Serif	**ABC123**	*ABC123*
	Sans Serif	**ABC123**	*ABC123*
	Monospace	**ABC123**	*ABC123*
CJK	Serif	**汉字かな한글**	汉字かな한글
	Sans Serif	**汉字かな한글**	汉字かな한글
	Monospace	**汉字かな한글**	汉字かな한글

We also make a new design on *concept* element.

We use a *name-meaning-example* triplet to explain a concept.

> name
>
> meaning
>
> examples

To do this, use the following command:

```
\concept[<name>]{<meaning>}{<examples>}
```

We use curly brackets to group concepts.

- A

- B $\begin{cases} \bullet \text{ B1} \begin{cases} \bullet \text{ B11} \\ \bullet \text{ B12} \end{cases} \\ \bullet \text{ B2} \\ \bullet \text{ B3} \\ \bullet \text{ B4} \end{cases}$

$\left. \begin{array}{l} \bullet \text{ B2} \\ \bullet \text{ B3} \\ \bullet \text{ B4} \end{array} \right\} = \text{merge to B}'$

- C

To use forking brackets, make sure you are inside an itemize or enumerate environment, and then use the following envronment:

```
\item A
\begin{fork}
  \item A1
  \item A2
\end{fork}
```

To use merging brackets, mark the two endpoints with \tikzmark{name1} and \tikzmark{name2}, and then use the following commands after them:

```
\merge{name1}{name2}[concept C]
```

Another update is that we now make listing latex code more easy with the following environment (delete the space in latexbloc k):

```
\begin{latexbloc k}{emph1,...}{kw1,...}{style commands}
  \keyword{emphasized word}
\end{latexbloc k}
```

updates on text emphasis

Command	Effect
\strikethrough[color]{text}	AaBbCc123 汉字かな한글
\crossout[color]{text}	AaBbCc123 汉字かな한글
\highlight[color]{text}	AaBbCc123 汉字かな한글
\underline[color]{text}	AaBbCc123 汉字かな한글
\underdbline[color]{text}	AaBbCc123 汉字かな한글
\underwave[color]{text}	AaBbCc123 汉字かな한글
\underdot[color]{text}	AaBbCc123 汉字かな한글
\undertriangle[color]{symbol}{text}	AaBbCc123 汉字かな한글
\undercircle[color]{symbol}{text}	AaBbCc123 汉字かな한글
\undercross[color]{symbol}{text}	AaBbCc123 汉字かな한글

Bibliography