Publishing Pdf Docs

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Abstract

Introduction

PubCSS は学資論文向けのCSSです。これらを用いて、統一書式としてのスタイリングを行います。

princeは、HTMLをPDFへ変換するCLIユーティリティです。

mdpdfは、MarkdownをPDFへ変換するCLIユーティリティです。

Methodologies

Prerequisites

- Prince - Download Prince 15.4

- GitHub - elliotblackburn/mdpdf: Markdown to PDF command line app with support for stylesheets

- GitHub - kuangdash/pubcss: Format academic publications in HTML & CSS

Steps

Install prince

```
tar xf prince-15.4-ubuntu20.04-amd64.tar.gz
sudo prince-15.4-ubuntu20.04-amd64/install.sh
```

Then add alias to shell config

- e.g.: `~/.config/fish/config.fish`

```
alias prince_win '/mnt/c/Program\ Files\ \(x86\)/Prince/engine/bin/prince.exe'
```

Usage example

```
prince_win input.html -o output.pdf
```

Install mdpdf

```
npm i -g mdpdf

# 日付
echo '<header><span class=\"date\"></span></header>' > header.html

# Filepath, ページ番号
echo '<footer><span style=\"font-size: 10px\"> <span class=\"pageNumber\"></span>/<span class=\"totalPages\"></span></span></footer>' > footer.html
```

Install PubCSS

```
git clone https://github.com/kuangdash/pubcss.git
cd kuangdash/pubcss

cp formats/acm-sig/css/pub.css . # 議事録
# cp formats/acm-sigchi/css/pub.css . # 会議論文
# cp formats/acm-sigchi-ea/css/pub.css . # 拡張アブストラクト
# cp formats/ieee/css/pub.css . # IEEE会議の議事録
```

Build PDF

- Using prince

```
prince input.html output.pdf
```

- Using Pandoc

```
# Argument of --pdf-engine must be one of wkhtmltopdf, weasyprint, pagedjs-cli, prince, pdflatex, lualatex,
xelatex, latexmk, tectonic, pdfroff, typst, context

set note Notes/pending/demo-note1.md

iconv -c -f SJIS -t UTF8 $note |
pandoc --css pub.css \
-V CJKmainfont="Noto Serif JP" \
--pdf-engine=prince \
-o (basename $note .md).pdf
```

- Using mdpdf

```
set note Notes/pending/demo-note1.md

mdpdf $note \
--style pub.css \
--gh-style false \
--format A4 \
--border '20mm' \
--header header.html \
# --footer footer.html \
# --debug : save as HTML
# --pdf-options '{ \
#     "printBackground": true \
#   }'
```

- Bulk processing

```
fd -t f "$notes*" -g --max-depth 1  --ignore src |
parallel mdpdf {} \
```

```
--style pub.css \
--gh-style false \
--format A4 \
--border '20mm' \
--header header.html
```

Patching CSS

PubCSSへ、いくつかの改善を行います。

```css
/* 日本語フォントの指定 */

body {
  font-family: "Noto Serif JP", "Times New Roman", Times, serif;
  ..
}


/* Header */
header {
  display: flex;
  justify-content: flex-end;
  align-items: center;
  height: 60px;
  background-color: #fff;
  padding: 0 20px;
  margin-bottom: 20px;
}

.date {
  text-align: center;
  display: inline-block;
  margin-right: 20px;
}

/* Footer */
footer {
  font-size: 8pt;
  margin: .5em 0;
}

#footer p {
  border-top: 1px solid darkgray;
  margin-top: 5px;
  padding: 5px;
}

.title, .totalPages, .pageNumber {
  font-size: 8pt;
  font: "Noto Serif JP";
}

/* Numbering */
h1 {
    counter-reset: h2;
}

h2 {
    counter-reset: h3;
}
```

```css
#write h2:before {
    counter-increment: h2;
    content: counter(h2) ". ";
}

#write h3:before {
    counter-increment: h3;
    content: counter(h2) "." counter(h3) ". ";
}

/* コードブロックの折り返し */
.force-word-wrap pre code {
  white-space: pre-wrap;
  word-wrap: break-word;
  overflow-wrap: break-word;
  word-break: keep-all;
}


/* コードブロックの印刷用配色 */
pre {
  background-color: white;
}


@media print {
  /* Token (hljs) styling within code blocks */
  pre > code .hljs-em { font-style: italic; }
  pre > code .hljs-link { text-decoration: underline; }
  pre > code .hljs-strikethrough { text-decoration: line-through; }
  pre > code .hljs-{ color: #000; }
  pre > code .hljs-keyword { color: #708; }
  pre > code .hljs-number { color: #164; }
  pre > code .hljs-variable { color: #c5a; }
  pre > code .hljs-punctuation { color: inherit; }
  pre > code .hljs-property { color: inherit; }
  pre > code .hljs-operator { color: inherit; }
  pre > code .hljs-def { color: #00f; }
  pre > code .hljs-atom { color: #219; }
  pre > code .hljs-variable-2 { color: #05a; }
  pre > code .hljs-type { color: #085; }
  pre > code .hljs-comment { color: #140; }
  pre > code .hljs-string { color: #a11; }
  pre > code .hljs-string-2 { color: #f50; }
  pre > code .hljs-meta { color: #555; }
  pre > code .hljs-qualifier { color: #555; }
  pre > code .hljs-builtin { color: #30a; }
  pre > code .hljs-bracket { color: #997; }
  pre > code .hljs-tag { color: #a50; }
  pre > code .hljs-attribute { color: #00c; }
  pre > code .hljs-hr { color: #999; }
  pre > code .hljs-link { color: #00c; }
}
```

その他、HTMLのスニペット

```html
<!-- トップ画像 -->
<div class='top' align='center'>
  <img src='top.png' alt='alt' height='200px'>
</div>
```

```
<!-- 目次 -->
<div class="toc">

</div>

<!-- 改行 -->
<div style="page-break-after: always;"></div>
```

References

1. princexml

2. PubCSS: Formatting Academic Publications in HTML & CSS | Thomas Park

3. PubCSS: Formatting Academic Publications in HTML & CSS - JOYK Joy of Geek, Geek News, Link all geek