

book





xelatex

windows

**1. xelatex**

xelatex latex

**2. xelatex**

xelatex

**4. xelatex**

xelatex tikz

**5.**

github

<https://github.com/a358003542/xelatex-guide-book>  
guide-book

# Contents

**Part I**  
**xelatex**

# Chapter 1

## 1.1 TeX

wikibook latex <http://en.wikibooks.org/wiki/LaTeX/Introduction>wikibook-latex  
TeX Donald Knuth Knuth 1977  
else Tex Tex bug Tex

## 1.2 Knuth

Knuth T<sub>E</sub>X Knuth <http://zh.wikipedia.org/wiki/>

## 1.3 LaTeX

LaTeX , LaTeX Leslie Lamport , T<sub>E</sub>X [?]

## 1.4 XeLaTeX

XeLaTeX UTF-8 LaTeX pdf xelatex tex

beginning

## 2.1

3



## 2.2 documentclass

|   |              |   |               |           |            |
|---|--------------|---|---------------|-----------|------------|
| <code>\part {partname}</code>                   |              |   |               |           |            |
| <code>\chapter {chaptername}</code>             |              |   |               |           |            |
| <code>\section {sectionname}</code>             |              |   |               |           |            |
| <code>\subsection {subsectionname}</code>       |              |   |               |           |            |
| <code>\subsubsection {subsubsectionname}</code> |              |   |               |           |            |
| <code>\paragraph {paragraphname}</code>         |              |   |               |           |            |
| <code>\subparagraph {subparagraphname}</code>   |              |   |               |           |            |
| paragraph                                       | subparagraph |   | subsubsection | section   | subsection |
| book  | article      | : | subparagraph  | paragraph | section    |

10pt 11pt 12pt 10pt[?]

a4paper letterpaper...  
a5paper b5paper executivepaper legalpaper  
fleqn  
leqno  
titlepage, notitlepage article report book  
onecolumn, twocolumn LaTeX  
twoside, oneside LaTeX article report book  
openright, openany chapter book openright report openany article chapter

## 2.3

maketitle

maketitle

listoftables listoffigures  
tableofcontents,

appendix

## 2.4

```

frontmatter  begin document
mainmatter
appendix    ,
backmatter  2

```

---

<sup>2</sup>backmatter appendix <http://tex.stackexchange.com/questions/20538/what-is-the-right-order-when-using-frontmatter-tableofcontents-mainmatter>

# Chapter 3

*geometry*

## 3.1 geometry

```

geometry geometry 3.1
geometry-option-one geometry 1
geometry a0paper a6paper b1paper b6paper paperwidth paperheight
paperwidth textwidth marginparsep marginparwidth left right
includemp=true :
width=textwidth+marginparsep+marginparwidth :
paperwidth=left+width+right true
paperheight textheight top bottom top headheight headsep bot
geometry-option-two geometry 2
includehead=true height includefoot=true, height
geometry

```

## 3.2

```

multicol beamer columns beamer frame
linewidth columnbreak columnbreak TEX columnb
??
2 documentclass twocolumn setlength columnseprule C
columnsep setlength

```

---

<sup>1</sup> <http://texblog.org/tag/columnseprule/>

3.2.1

beamer columns                      minipage                      texmaker

[0.9]ju-li-shi-jian-qu-xian-tu                      -

# Chapter 4

xelatex ubuntu

## 4.1

L<sup>A</sup>T<sub>E</sub>X, encoding,family,series,shape and size

### 4.1.1

T<sub>E</sub>X OT1(Old TEX text encoding), , OT1 ,

### 4.1.2

roman or serif rm sans serif sf  
monospace tt <http://wiki.ubuntu-tw.org/index.php?title=HowtoCustomFontswithFontconfig>

**serif** Serif Windows Linux Sans-  
Serif Serif Sans  
Serif Times New Roman DejaVu Serif

**sans-serif** Sans-Serif Mac  
Sans-Serif DejaVu Sans Helvetica Verda-  
na

**monospace** Mono space m i l

Monospace Andale Mono DejaVu Sans  
Mono Courier AR PL New Sung Mono

**4.1.3**

medium **m**   bold **b**   Bold extended **bx**   Semi-bold **sb**   Condensed **c**

**4.1.4**

normal **n**   Italic **it**   Slanted **sl**   Small Caps **sc**

**4.1.5**

11pt

**4.2****4.2.1**

UTF-8   inputenc fontenc

**4.2.2**

roman font family

**4.2.3**

medium   bold

**4.2.4**

upright shape

**4.2.5**

L<sup>A</sup>T<sub>E</sub>X

12pt   huge Huge   moresize

fontsize

\selectfont

fontencoding fontfamily fontseries fontsl

|                            |                               |            |
|----------------------------|-------------------------------|------------|
|                            |                               |            |
| <code>\textrm{text}</code> | <code>{\rmfamily text}</code> | roman      |
| <code>\textsf{text}</code> | <code>{\sffamily text}</code> | sans-serif |
| <code>\texttt{text}</code> | <code>{\ttfamily text}</code> | monospace  |

Table 4.1:

|                               |                                  |      |
|-------------------------------|----------------------------------|------|
|                               |                                  |      |
| <code>\textmd{text...}</code> | <code>{\mdseries text...}</code> |      |
| <code>\textbf{text...}</code> | <code>{\bfseries text...}</code> | bold |

Table 4.2:

|                               |                                 |            |
|-------------------------------|---------------------------------|------------|
|                               |                                 |            |
| <code>\textup{text...}</code> | <code>{\upshape text...}</code> |            |
| <code>\textit{text...}</code> | <code>{\itshape text...}</code> |            |
| <code>\textsl{text...}</code> | <code>{\slshape text...}</code> |            |
| <code>\textsc{text...}</code> | <code>{\scshape text...}</code> | small caps |

Table 4.3:

|  |           |
|--|-----------|
|  |           |
| <code>{\tiny test line}</code>         | test line |
| <code>{\scriptsize test line}</code>   | test line |
| <code>{\footnotesize test line}</code> | test line |
| <code>{\small test line}</code>        | test line |
| <code>{\normalsize test line}</code>   | test line |
| <code>{\large test line}</code>        | test line |
| <code>{\Large test line}</code>        | test line |
| <code>{\LARGE test line}</code>        | test line |
| <code>{\huge test line}</code>         | test line |
| <code>{\Huge test line}</code>         | test line |

Table 4.4:

| size                       | 10pt (default) | 11pt option | 12pt option |
|----------------------------|----------------|-------------|-------------|
| <code>\tiny</code>         | 5pt            | 6pt         | 6pt         |
| <code>\scriptsize</code>   | 7pt            | 8pt         | 8pt         |
| <code>\footnotesize</code> | 8pt            | 9pt         | 10pt        |
| <code>\small</code>        | 9pt            | 10pt        | 11pt        |
| <code>\normalsize</code>   | 10pt           | 11pt        | 12pt        |
| <code>\large</code>        | 12pt           | 12pt        | 14pt        |
| <code>\Large</code>        | 14pt           | 14pt        | 17pt        |
| <code>\LARGE</code>        | 17pt           | 17pt        | 20pt        |
| <code>\huge</code>         | 20pt           | 20pt        | 25pt        |
| <code>\Huge</code>         | 25pt           | 25pt        | 25pt        |

Table 4.5:



# Chapter 5

xelatex      xltextra fontspec xunicode      xltextra      fontspec xunicode    xunicod

## 5.1 fontspec

fontspec      fontspec      xeCJK      *opentype truetype*

### 5.1.1

fontspec      setmainfont      roman      setmainfont      setromanfont <sup>1</sup>setsansfonts      sans-  
 serif      setmonofont      monospace      Mapping=tex-text  
 fontspec      fontspec      fontspec      fontspec      fontsp  
 [Scale=4,Color=magenta]Ubuntu this is a test.  
     newfontfamily      fontspec      \sffamily  
 \newfontfamily{\ubuntu}[Scale=3]{Ubuntu}  
     \ubuntu{    }  
     : [ font features ] font name [ font features ] font name [ font  
 features ] font name [ font features ] font name    cmd [ font features ] font  
 name  
     font name      fc-list      ,*SimSun:style=Regular*      SimSun    font-  
 manager      *Comic Sans MS Regular*      Comic Sans Ms      font features      xeCJK fo

### 5.1.2 font features

mainfont      boldfont italicfont  
 [BoldFont=Adobe    Std, ItalicFont=Adobe    Std] Adobe    Std

---

<sup>1</sup><http://tex.stackexchange.com/questions/70413/problem-with-xetex-latex-and-system-fonts>

`BoldFont = font name`  
`ItalicFont = font name`  
`BoldItalicFont = font name`  
`SlantedFont = font name`  
`BoldSlantedFont = font name`  
`SmallCapsFont = font name`

### 5.1.3 Color

`Color`      `xcolor`      `xdvipdfm`      `xcolor`      ??

### 5.1.4

`Scale`      `MatchLowercase`      `MatchUppercase`

### 5.1.5 — WordSpace

### 5.1.6 — PunctuationSpace

### 5.1.7 — HyphenChar

`HyphenChar + + \-`

### 5.1.8 — LetterSpace

`feature`

### 5.1.9

`defaultfontfeatures addfontfeatures`  
`addfontfeatures>fontspec>defaultfontfeatures`

## 5.2

`amssymb amsmath`      `siuintx`  
`\everymath{\displaystyle}`

amssymb,amsmath fontspec siunitx math-micro = , text-micro =

## 5.3 xeCJK

xeCJK CJK fontspec

### 5.3.1 xeCJK

fontspec xeCJK CJK fontfeatures

**setCJKmainfont** setmainfont

**setCJKsansfont** setsansfont

**setCJKmonofont** setmonofont

**CJKfontspec** fontspec

**newCJKfontfamily** newfontfamily

**defaultCJKfontfeatures** defaultfontfeatures

**addCJKfontfeatures** addfontfeatures

**setCJKmathfont** setmathrm

### 5.3.2 CJK

Scale=1.2 CJK CJK 1.2 documentclass 10pt CJK 12pt C.

## 5.4 UTF-8

texmaker utf-8  
 % !Mode:: "TeX:UTF-8"  
 UTF-8