

# Notes of Learning L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub>

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## **Abstract**

This report is introducing some random knowledge which is mostly useless for .....

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# Preamble

The only purpose of this “Preamble” chapter appearing here is to test `\addcontentsline`

# Chapter 1

## 8th November

*“Live life to the fullest, and focus on the positive.”*  
— Matt Cameron

### 1.1 Basic Introduction of T<sub>E</sub>X and L<sup>A</sup>T<sub>E</sub>X

T<sub>E</sub>X is a typesetting software program which was created by Leslie Lamport. It is able to generate high-quality printable documents. The core philosophy of T<sub>E</sub>X is “What You See Is What You Mean (WYSIWYM)”, which makes writers more focus on contents. The way of using T<sub>E</sub>X to make a document is somewhat similar to programming, writing files which consist of commands and texts under specific grammar rules and then compiling these files to a printable document.

In order to make T<sub>E</sub>X easier to use, Donald Knuth developed an extendable macro library based on the original T<sub>E</sub>X, which is the L<sup>A</sup>T<sub>E</sub>X.

### 1.2 Grammar Structure of L<sup>A</sup>T<sub>E</sub>X

### 1.3 Files Organization of L<sup>A</sup>T<sub>E</sub>X

### 1.4 Encoding

### 1.5 Chinese Support

### 1.6 Brief Introduction of Symbols

### 1.7 Miscs

#### 1.7.1 Text Emphasis

This is an example of `\underline`.  
*This is an example of `\emph`*

#### 1.7.2 Space, Line, Paragraph and Page Control

##### Spaces

~: L<sup>A</sup>T<sub>E</sub>X does not break a line from the position of ~. See the difference between Prof. X and Prof. X.

## Lines

`\newline` and `\\` are used for breaking lines.

## Paragraphs

`\par` and a empty line are used for starting a new paragraph.

BTW, multiple successive empty lines are considered as one.

## Pages

Now, use `\newpage` or `\clearpage` to open a new page.

## 1.8 XXX

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetur id, vulputate a, magna. Donec vehicula augue eu neque. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Mauris ut leo. Cras viverra metus rhoncus sem. Nulla et lectus vestibulum urna fringilla ultrices. Phasellus eu tellus sit amet tortor gravida placerat. Integer sapien est, iaculis in, pretium quis, viverra ac, nunc. Praesent eget sem vel leo ultrices bibendum. Aenean faucibus. Morbi dolor nulla, malesuada eu, pulvinar at, mollis ac, nulla. Curabitur auctor semper nulla. Donec varius orci eget risus. Duis nibh mi, congue eu, accumsan eleifend, sagittis quis, diam. Duis eget orci sit amet orci dignissim rutrum.

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Test index.

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Test index.

## Chapter 2

### 15th November

What is the difference about appearance between *tabular* and *array*

1	2	3	1	2	3
2	3	4	2	3	4

## Chapter 3

# Heading on Level 0 (chapter)

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

### 3.1 Heading on Level 1 (section)

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

#### 3.1.1 Heading on Level 2 (subsection)

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

#### Heading on Level 3 (subsubsection)

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

**Heading on Level 4 (paragraph)** Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

## 3.2 Lists

### 3.2.1 Example for list (itemize)

- First item in a list
- Second item in a list
- Third item in a list
- Fourth item in a list
- Fifth item in a list

### Example for list (4\*itemize)

- First item in a list
  - First item in a list
    - \* First item in a list
      - First item in a list
      - Second item in a list
    - \* Second item in a list
  - Second item in a list
- Second item in a list

### 3.2.2 Example for list (enumerate)

1. First item in a list
2. Second item in a list
3. Third item in a list
4. Fourth item in a list
5. Fifth item in a list

### Example for list (4\*enumerate)

1. First item in a list
  - (a) First item in a list
    - i. First item in a list
      - A. First item in a list
      - B. Second item in a list
    - ii. Second item in a list
  - (b) Second item in a list
2. Second item in a list

### 3.2.3 Example for list (description)

**First** item in a list

**Second** item in a list

**Third** item in a list

**Fourth** item in a list

**Fifth** item in a list

### Example for list (4\*description)

**First** item in a list

**First** item in a list

**First** item in a list

**First** item in a list

**Second** item in a list

**Second** item in a list

**Second** item in a list

**Second** item in a list

## Chapter 4

# Heading on Level 0 (chapter)

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

### 4.1 Heading on Level 1 (section)

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

#### 4.1.1 Heading on Level 2 (subsection)

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

#### Heading on Level 3 (subsubsection)

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

**Heading on Level 4 (paragraph)** Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

**Heading on Level 5 (subparagraph)** Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

## 4.2 Lists

### 4.2.1 Example for list (itemize)

- First;
- Second;
- Third;
- Fourth.

### Example for list (4\*itemize)

- First in the first level;
  - First in the second level;
    - \* First in the 3rd Level;
      - First in the 4th level;
      - Second in the 4th level;
    - \* Second in the 3rd level;
  - Second in the second level.
- Second in the first level.

### 4.2.2 Example for list (enumerate)

1. do I have to generate that many items???
2. Two;
3. Three in French is “Toi”. :)

### Example for list (4\*enumerate)



## **Chapter 5**

**22nd November**

## Chapter 6

**29th November**

**Chapter 7**

**6th December**

## Appendix A

# Random Thoughts

# Index

Donald E.Knuth., 4

Dr. Lamport, 4

"Test, **6–8**

|sub|, *see* Test