

1 introduction

Latex:Typesetting for professional documents latex isn't WISYWIG. WISYWIG:What you see is what you get. HTML: Hyper text Markup Language -*i* for Web Pages. XML:Extensible Markup Language Like: `<first name>` REX `<first name>` is tagged Between. Graph ML: Represents graph, edge and so on. Latex: not Wrapped, tags are not wrapped. Latex Focuses On Content.

1.1 Setting Up Latex

1.A TeX Distribution (type Setting Engine) 2.A LaTeX editor

1.1.1 .log

.log contains every thing in console and etc

2 Word Faces

We can make **Bold** or *italic* or Underline our Words. if we don't want indent our preceding paragraph we use **no indent** command like as is.

3 Environment

3.1 Bulleted Lists

C Based Programming Languages:

- C++
- C
- C#

3.2 Numbered Lists

Materials you need to start Programming:

1. PC
2. Internet Access
3. Encourage

3.3 Description

We use this mode to describe items:

Python Python is a interpretable Language.

C & C++ Are Compiler Based Languages.

Java Uses Both Interpretation and Compilation Benefits With *JVM*.

3.4 White Spaces

LaTeX ignores White Spaces & Indentations in Code. So far So No Problem.

4 Tabular Environment

ASCII Table In different formats

Dec	Hex	bin	Character
0	0	0	<i>[NULL]</i>
1	1	1	<i>[START OF HEADING]</i>

Dec	Hex	bin	Character
2	2	10	<i>[START OF TEXT]</i>
3	3	11	<i>[END OF TEXT]</i>

Dec	Hex	bin	Character
4	4	100	<i>[END OF TRANSMISSION]</i>
5	5	101	<i>[ENQUIRY]</i>

Table is is a floating environment and we can Wrap tabular environments into tables LaTeX Will Find Best Place to Place table And Also we can Apply Our Preferences.

For Example We Wrapped Following Table in an *Environment*:

Dec	Hex	bin	Character
6	6	110	<i>[ACKNOWLEDGE]</i>
7	7	111	<i>[BELL]</i>
127	7F	1111111	<i>[DEL]</i>

Table 1: Part Of ASCII Table

4.1 Recommendation

Always Use Tabular Environments.

4.2 Spanning Tables

5 Photo

In order to use photo in LaTeX Documents we must import *graphicx* library using **usepackage**

Table 2: Spanning rows and columns

	Ranges	
	X	Y
hot	7	9
	5	8
	6	7
cold	4	7
	2	9
	3	5

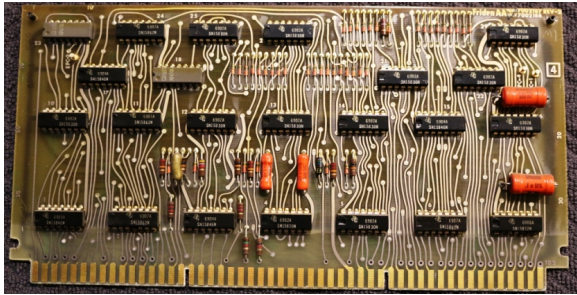


Figure 1: This is a office environment in 80s

6 Article

We can cite Article or Books in our latex file. first of all we collect our citations in *.bib* file and in \LaTeX file we cite them.for example [2] is a book and [1] is file.

When we import references from *.bib* file, \LaTeX Enumerate them in Automatic manner and *.bbl* file will be created for further usages.

6.1 Reference Manager Software

Bibliothek and Mendeley are commonly used soft-wares that are used for create and export *.bib* files.

7 Mathematics

7.1 Equations

like $E = mc^2$ We can type many Equations inline Using \$ sign.

Floating Environments Also Suggested for Mathematical Equation like Mentioned in 1 .

$$I = A^{-1} * A \quad (1)$$

7.2 Special Characters

There are lots of special characters in mathematics that are also recognized by latex. some of them are mentioned below.

$$7^4 + 6 * 17 \geq 13 \cup X \alpha 13 \exists \rightarrow \beta \cup \sigma \quad (2)$$

8 Algorithm

Algorithm Environment!

```
procedure DEC-MDP(S,A,P,R,O, $\Omega$ )
```

```
    if  $S \geq A$  then
```

```
     $S \leftarrow A$ 
```

```
    end if
```

```
end procedure
```

9 Clickable Links

you can visit CTAN Website for more help:<https://ctan.org>

9.1 Article Template

you can use various journals templates. for example IEEE template :http://www.ieee.org/publications_standards/publications/authors/author_templates.html downloaded wile may have *.bst* file for bibliography typesetting. Using Downloaded template:

```
\documentclass[conference]{IEEEtran}
```

10 More Photos

This photo of paper that 2a and Figure 2b in figure 2.

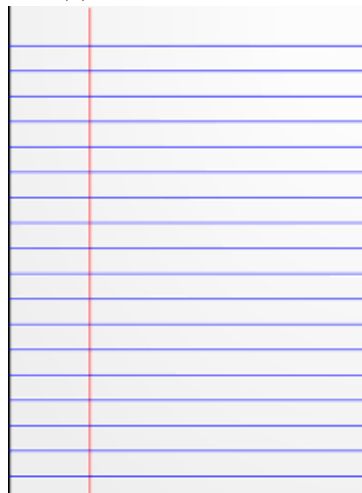
11 Parallel Cooperation in L^AT_EX

when we importing specific file in our destination L^AT_EXfile ,for example this L^AT_EXfile we must import that using \input{file name within same folder without *.tex* Extension}.

In source file any additional doesn't necessary.



(a) Beginning



(b) End

Figure 2: The Process

12 Solving Enumeration Problem

Some times we start Enumerating For Example say Countries we end up with problems:

1. America
2. Canada
3. Brazil

Then We explain some thing & we enumerate again:

1. Japan
2. China

12.1 First Solution

it will reset the counter after explanation between.

Importing *enumitem* will solve this problem. so we can use resume as parameter for enumeration environment **EXCEPT** first Environment.

1. America
2. Canada
3. Brazil

Then We explain some thing & we enumerate again:

4. Japan
5. China

13 conclusion

Use L^AT_EX you Microsoft Slave!

14 References

References

- [1] Latex website. <https://www.latex-project.org>.
- [2] J. G. Smith and H. K. Weston. Nothing particular in this year's history. *J. Geophys. Res.*, 2:14–15, 1954.