FAQ on Writing Papers Using LaTeX

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Chapter 1

Introduction

LaTeXis a very useful tool for writing papers and thesis. It will generate very beautiful document compared with other softwares, such as MS WORD. Specifically, it is very convenient to writing formulas under LaTeX. The best is that LaTeXcan be free for use and has numerous free packages to enhance the function of LaTeX.

However, it faces the same difficulties similar to other freewares. It is hard to use compared with WYSIWYG[1] softwares. Numerous independent packages makes it also hard to find the package you require.

This FAQ is trying to help those who is somewhat new in using LaTeXwhile already has the basic knowledge of the how to write and compile LaTeXfiles. If you have any question or suggestions, please write to tangjun@ece.umn.edu

[1] What your see is what you get

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Document class

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Tables and Figures

4.1 How to show figures in “draft” mode?

Add `\psfull` before `\begin{document}`. If no `\psfull` command has been defined, then define a new command as following:

```
\newcommand{\psfull}{\setkeys{Gin}{draft=false}}
```

`\psfull` may have already been defined in some packages.

4.2 How to have a table or figure shown as landscape?

Using environment `landscape` defined in package `lscape`. For example:

```
\usepackage{lscape}
...
\begin{landscape}
\begin{table}
\centering
\caption{Landscape table}\label{tab:land.table}
\begin{tabular}{|c|}
\hline
Nothing in the table.
\hline
\end{tabular}
\end{table}
\end{landscape}
```

With these commands, the results is shown in Table 4.1.

Table 4.1: Landscape table

Nothing in the table.

Table 4.2: Footnote in table

No footnote for this entry	Footnote for this entry[a]

[a]here is the footnote

Please note, the package is not `landscape` which defines landscape mode of a full document.

4.3 Footnotes

This section will cover some problem related to footnotes, especially when they are required in tables or figures. Some of the information are borrowed from: http://www.tex.ac.uk/cgi-bin/texfaq2html.

4.3.1 Footnotes in tables

Sometimes, we need to add footnotes on the table entries. But if we directly add these `\footnote{something}`, the footnotes will show nowhere. There are multiple solutions for this problem. Here is the most straight forward one: using minipage.

For example:

```
\begin{table}
\centering
\caption{Footnote in table}\label{tab:land.table}
\begin{minipage}{\textwidth} %for 2-column document, use 0.5\textwidth
\centering
\begin{tabular}{|c|c|}
\hline
No footnote for this entry & Footnote for this
entry\footnote{here is the footnote} \\
\hline
\end{tabular}
\end{minipage}
\end{table}
```

The results is illustrated in Table 4.2

4.3.2 Multiple footnote with identical text

The problem can be easily solved by utilizing footnotemark and setcounter command. For example:

```
A\footnote{A, B, C, and D has the same footnote. And the footnote
appears for the first time on A.}, ...
\newcounter{fnnumber}
```

```
\setcounter{fnnumber}{\value{footnote}}
B\footnotemark[\value{fnnumber}], ...
C\footnotemark[\value{fnnumber}], ... and
D\footnotemark[\value{fnnumber}].
```

has following effect:
A[1], ... B[1], ... C[1], ... and D[1].

It is also said that the same effect can be achieved by using label and ref command. But I cannot make it work with following codes:

```
A\footnote{A, B, C, and D has the same footnote. And the footnote
appears for the first time on A.\label{fn:id.fn}}, ...
B\footnotemark[{\ref{fn:id.fn}}], ...
C\footnotemark[{\ref{fn:id.fn}}], ... and
D\footnotemark[{\ref{fn:id.fn}}].
```

The reason of failure may come from the re-definition of ref command in some of the package I'm using. In the re-definition, ref command is protected, such that it cannot be used as a parameter for the footnotemark command.

[1] A, B, C, and D has the same footnote. And the footnote appears for the first time on A.

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Math

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Packages

7.1 From where can we obtain required packages?

If you are using PC, from Miktex 2.2, you can install a full version of latex which includes all packages required. It also provides online update functions, so that you can maintain the up to date packages on local hard disk. However, installing all of the packages requires over 600MB space. Miktex can be obtained through: www.miktex.org.

If you are using Linux or Unix, you can manually download the require packages through:
http://www.ctan.org.

If you are using Miktex older than 2.2, you can also download from ctan.org. But please remember to update the Miktex database.

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Misc

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