

Manual for onepgnote

Guanyuming He

<https://github.com/guanyuming-he/onepgnote>

May 27, 2025

Contents

1 Motivation	2
2 Basic Ideas	2
3 Usage	3
4 Example (Template)	3
5 Future directions	3

1 Motivation

The package was written when I was a student at Imperial College London, preparing for an exam that allows each person to bring a one-page note.

As a \TeX nitian, I naturally wanted to typeset it using \LaTeX . At first, I thought of using some existing package to do that. I found `cheatsheet` on CTAN, but felt that I still could have saved a lot of space to put more things on the paper. Moreover, I have a few cool ideas that `cheatsheet` didn't provide. Thus, I made this package.

2 Basic Ideas

The package is designed to be simple yet powerful, thanks to the following powerful ideas.

1. One major space eater is the glues between sections. Yet they serve an important task: make the sectioning obvious. The first goal is to eliminate the space while keeping the sectionings very conspicuous. To accomplish that, I use `tcolorbox` with bright frames and `\fboxes`.

This feature overrides the `\section` and `\subsection` commands.

2. A lot of ideas are put on a one-note page. Yet for spaces issues, one would want to write all related in a paragraph. Thus, I created macros for inline enumeration: each `\item` is marked with an `\tcbbox` that is as small as about two letters, which contains the `\item` number.

This overrides the `enumerate` environment.

3. A lot of different ideas from all over the course are put in the note. As such, one would sometimes want to refer to another place in a note. Unfortunately, printed paper doesn't allow one to click on hyperlinks.

Therefore, I made all `\labels` and `\refs` visible, and each pair has a unique number to identify it.

4. My major is math-heavy. I reduced the spaces before and after displayed math a lot.

5. I use conspicuous inline `\tcbboxes` to also mark other important things. For example, if one wants to note something, then one puts a `\notebox`, which produces a yellow inline box containing `NOTE`, followed by a space.

6. It may seem a good idea to also load the `geometry` package to control the margins, etc. However, I believe it violates the modular principle. My package should not do things that it's not supposed to do.

Therefore, I avoided all such geometry manipulations in my package, so that a user can load such packages individually to configure what she wants.

These few ideas don't take a lot lines of code to implement, but together, they enable the making of very space-efficient and reading-efficient one-page notes.

3 Usage

The class is `article`-based. You use it like a normal article except:

1. I only override three sectioning commands: `\section`, `\subsection`, and `\subsubsection`. Do not use the others.
2. I only override listing environment `enumerate`. Do not use the others. But I may override more in the future.
3. Because of the tight space, you need to think of where you will allow additional breaks in inline math by `\allowbreak`. I don't like to idea of using a global option to allow all breaks, so I leave the freedom to you.

Please see the example mentioned in the next section to have a direct impression on the effect. Also see its source code to notice that you indeed write the note like using `article`.

4 Example (Template)

Inside the package installation directory, you will notice an `example.tex` that contains an example one-page note.

In fact, that was the note that I used for the exam I mentioned at the beginning in the Motivation. I hope that demonstrates the simplicity and the power of my package.

5 Future directions

As of version 1.0.0. All the features I want have been implemented and most of them are configurable via class options.

One thing I could do in the future is to override more sectioning control sequences and listing environments.

I could also add more styles of boxed, or add control sequences that allow the user to easily create them, in the future.