The mindflow package

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1 Introduction

The mindflow package provides you a way to write your ideas, annotations or writing plans.

For example (with option `linenumber` and `rightmarker`):

```
1  What to write next:                                          *
2      • usage;                                                  *
3      • some internal macros;                                   *
4      • an example maybe;                                       *
5      • the complete code.                                      *
```

You can also add line numbers to the other part document in the usual way. Line numbers within the mindflow environments are independent from those of the main text.

2 Usage

Simply load the package with `\usepackage{mindflow}`. By default it has no line numbers or markers. You can use the following options:

`linenumber`	Enable line numbers
`leftmarker`	Enable left marker, by default it is a "*"
`rightmarker`	Enable right marker, by default it is a "*"
`incolumn` or `twocolumn`	The separation line would fit in the column (*automatically applied in two-column documents*)
`off`	Hide all the `mindflow` environments

`mindflow` Then you can use the mindflow environment as

```
\begin{mindflow}
    ...
\end{mindflow}
```

3 Some technical details

`\mindflowTextFont` `\mindflowNumFont` The font for texts and line numbers within the `mindflow` environments can be specified by redefining `\mindflowTextFont` and `\mindflowNumFont`. By default they are defined as:

```
\newcommand{\mindflowTextFont}{\normalfont\footnotesize}
\newcommand{\mindflowNumFont}{\normalfont\scriptsize\ttfamily}
```

`\mindflowLeft` `\mindflowRight` The left and right marker can be changed by redefining `\mindflowLeft` and `\mindflowRight`. Both have the default value as "*".

And finally, the color for texts and line numbers within the `mindflow` environments are called `mindflowText` and `mindflowNum`, respectively. By default, they have the same color as the context, with opacity 30% and 8%, respectively.

4 An example

With option `linenumber, leftmarker, rightmarker` and the following settings:

```
\colorlet{mindflowText}{blue!50!cyan}
\colorlet{mindflowNum}{blue!50!cyan}
\renewcommand{\mindflowTextFont}{\footnotesize\sffamily}
\renewcommand{\mindflowNumFont}{\footnotesize\sffamily}
\renewcommand{\mindflowLeft}{\hspace{1em}\(\succ\)}
\renewcommand{\mindflowRight}{\(\prec\)}
```

One gets:

```
 6  ≻  Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Etiam lobortis facilisis sem. Nullam nec mi et neque pharetra   ≺
 7  ≻  sollicitudin. Praesent imperdiet mi nec ante. Donec ullamcorper, felis non sodales commodo, lectus velit ultrices augue, a   ≺
 8  ≻  dignissim nibh lectus placerat pede. Vivamus nunc nunc, molestie ut, ultricies vel, semper in, velit. Ut porttitor. Praesent   ≺
 9  ≻  in sapien. Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Duis fringilla tristique neque. Sed interdum libero ut   ≺
10  ≻  metus. Pellentesque placerat. Nam rutrum augue a leo. Morbi sed elit sit amet ante lobortis sollicitudin. Praesent blandit   ≺
11  ≻  blandit mauris. Praesent lectus tellus, aliquet aliquam, luctus a, egestas a, turpis. Mauris lacinia lorem sit amet ipsum.   ≺
12  ≻  Nunc quis urna dictum turpis accumsan semper.   ≺
```

5 Implementation

Below is the complete source code of this package.

```
 1 \RequirePackage{kvoptions}
 2 \SetupKeyvalOptions{%
 3     family = @mindflow,
 4     prefix = @mindflow@
 5 }
 6 \DeclareBoolOption[false]{off}              % Turn off mindflow
 7 \DeclareBoolOption[false]{leftmarker}       % Left marker
 8 \DeclareBoolOption[false]{rightmarker}      % Right marker
 9 \DeclareBoolOption[false]{linenumber}       % Line numbers
10 \DeclareBoolOption[false]{twocolumn}        % Two column
11 \DeclareBoolOption[false]{incolumn}         % Separation line fits in the column
12
13 \ProcessKeyvalOptions*\relax
14
15 \if@mindflow@twocolumn
16   \@mindflow@incolumntrue
17 \fi
18
19 %%===============================
20 %% Initialization
21 %%===============================
22 \RequirePackage{lineno}
23 \RequirePackage{xcolor}
24
25 \colorlet{mfSavedColor}{.}
26 \colorlet{mindflowText}{mfSavedColor!30}
27 \colorlet{mindflowNum}{mfSavedColor!8}
28
29 \newcommand{\mindflowTextFont}{\normalfont\footnotesize}
30 \newcommand{\mindflowNumFont}{\normalfont\scriptsize\ttfamily}
31 \newcommand{\mindflowLeft}{*}
32 \newcommand{\mindflowRight}{*}
33
34 %%===============================
35 %% The mindflow environment
36 %%===============================
```

```latex
37 \newif\ifLNturnsON
38
39 \newcommand*{\mfSepLine}{%
40   \parskip=0pt
41   \LNturnsONfalse%
42   \ifLineNumbers\LNturnsONtrue\fi\nolinenumbers%
43   \par\noindent\nopagebreak%
44   \if@mindflow@incolumn%
45     \makebox[\linewidth]{\rule{\linewidth}{0.4pt}}%
46   \else%
47     \hspace*{-\paperwidth}\makebox[\linewidth]{\rule{4\paperwidth}{0.4pt}}%
48   \fi%
49   \nopagebreak\par%
50   \ifLNturnsON\linenumbers\fi%
51 }
52
53 \newcounter{recordLN}
54 \newcounter{mfLN}
55 \setcounter{mfLN}{1}
56
57 \if@mindflow@off
58   \RequirePackage{verbatim}
59   \let\mindflow=\comment
60   \let\endmindflow=\endcomment
61 \else
62   \newenvironment{mindflow}
63   {%
64     \setcounter{recordLN}{\value{linenumber}}
65     \setcounter{linenumber}{\value{mfLN}}
66     \LNturnsONfalse%
67     \ifLineNumbers\LNturnsONtrue\fi\nolinenumbers%
68     \mindflowTextFont\color{mindflowText}%
69     \mfSepLine%
70     \linenumbers%
71     \renewcommand\makeLineNumber{%
72       \hss\color{mindflowNum}%
73       \if@mindflow@linenumber%
74         \mindflowNumFont\LineNumber~%
75       \fi%
76       \if@mindflow@leftmarker%
77         \mindflowLeft\hspace{1em}%
78       \fi%
79       \if@mindflow@rightmarker%
80         \rlap{\hskip\textwidth\hspace{1em}\mindflowRight}%
81       \fi%
82     }%
83   }
84   {%
85     \par%
86     \vspace{-.5\baselineskip}\mfSepLine%
87     \ifLNturnsON\linenumbers\fi%
88     \setcounter{mfLN}{\value{linenumber}}
89     \setcounter{linenumber}{\value{recordLN}}
90   }
91 \fi
```