`keisennote` Package Documentation

Kosei Kawaguchi a.k.a. KKTeX

Version 1.0.4 (2025/10/04)

Contents

1 Acknowledgements / Credit

This package is based on the code from VoD's Qiita article, with some improvements. The original author has kindly granted permission to release this as a LaTeX package.

2 Installation

Place `keisennote.sty` in a directory where LaTeX can find it, e.g., your local `texmf` tree or alongside your document.

Dependencies:

- `xcolor`
- `tikz`
- `zref`, zref-savepos, fp
- `kvoptions`

Load the package:

```
\usepackage{keisennote}
```

3 Commands

3.1 `\notefill`

```
\notefill[<color>]
```

Fills the current vertical space with ruled notebook lines and dots.
Example:

```
\notefill[green]
```

3.2 `\note`

```
\note{<lines>}[<color>]
```

Typesets a short ruled block with a specified number of lines.

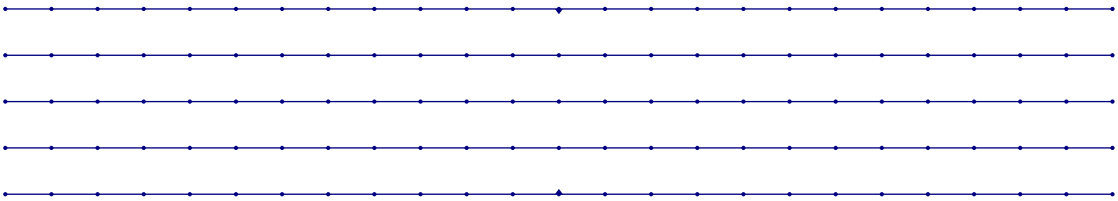
- `<lines>` (mandatory, integer ≥ 2): number of ruled lines.

- `<color>` (optional, default: white!70!black): color of lines and dots.

Example:

```
\note{5}[NavyBlue]
```

This produces the following output.



Inserting `\bigskip` before (and after) using the `\note` command can sometimes improve the appearance.

3.3 `\masumefill`

```
\masume[<color>]
```

Fills the current vertical space with grids and dots.

- `<color>` (optional, default: white!70!black): color of lines and dots.

Example:

```
\notefill[Gray]
```

3.4 `\masume`

```
\masume{<lines>}[<color>]
```

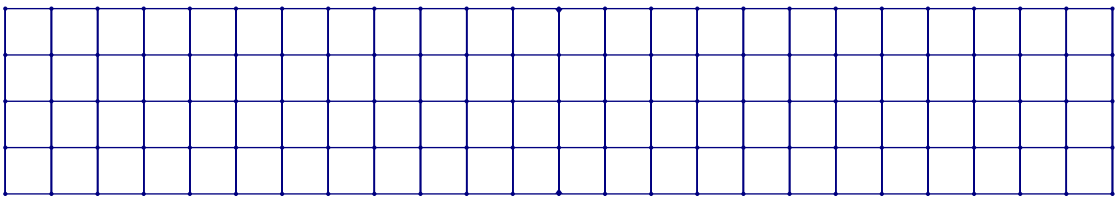
Typesets a short grid block with a specified number of lines.

- `<lines>` (mandatory, integer ≥ 2): number of ruled lines.
- `<color>` (optional, default: white!70!black): color of lines and dots.

Example:

```
\masume{5}[NavyBlue]
```

This produces the following output.



Inserting `\bigskip` before (and after) using the `\masume` command can sometimes improve the appearance.

4 Package Parameters

These dimensions can be adjusted:

`\SetNoteLineWidth` You can set the width of note lines : `\SetNoteLineWidth[2mm]`

`\SetNoteDotRadius` You can set the radius of dots. : `\SetNoteDotRadius[1pt]`

`\SetNoteLineDistance` You can set the distance between each lines.
: `\SetNoteLineDistance[7mm]`

`\SetNoteTriangleSize` You can set the size of triangles. : `\SetNoteTriangleSiz[1pt]`

If no argument is given, the parameter is reset to its default value.

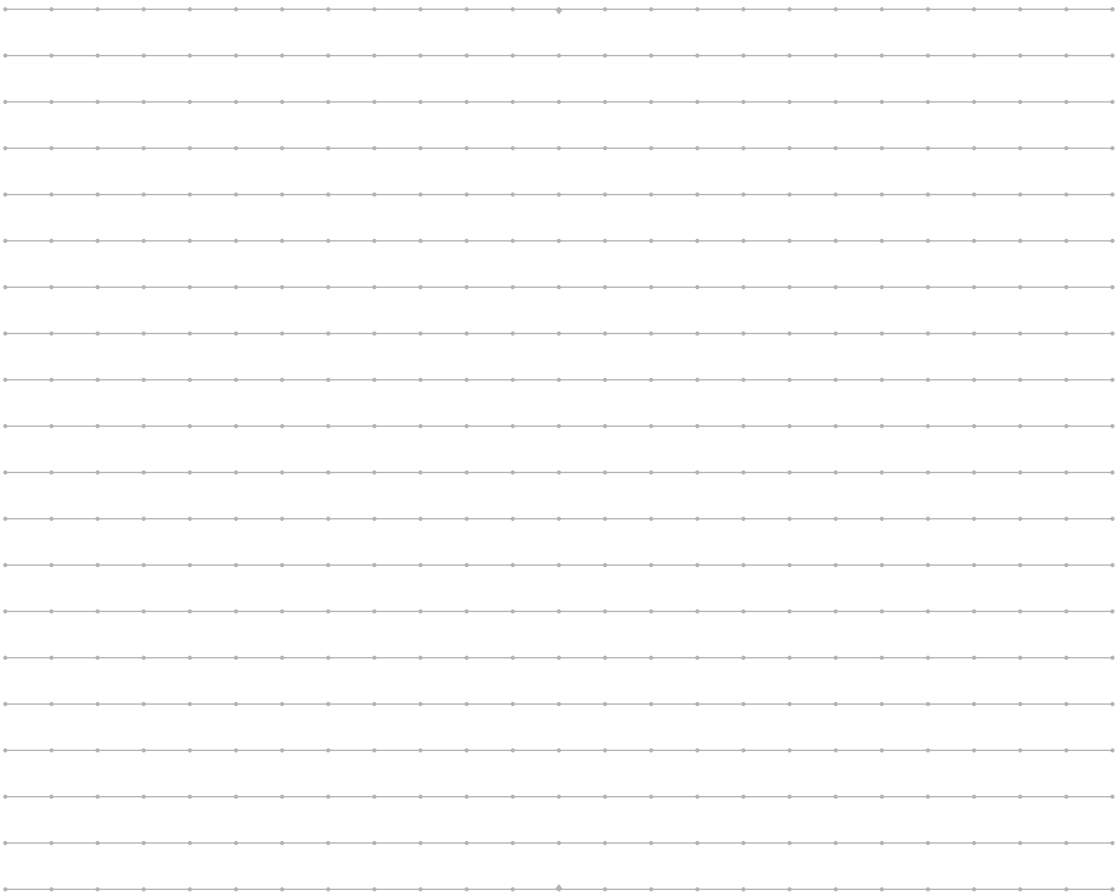
5 Examples

5.1 Short Note Block

```
\note{4}
```

5.2 Full Page Fill

`\notefill`



6 License

Released under the LaTeX Project Public License (LPPL) 1.3c.

7 Version History

- **v1.0.0 (2025/09/13)** — Initial public release.
- **v1.0.3 (2025/09/13)** — KKTeX added `\masume` and `\masumefill`.
- **v1.0.4 (2025/10/4)** — KKTeX fixed the problem in `\masumefill` and added some package options and setting commands.

8 Source Code

```
\ProvidesPackage{keisennote}[2025/10/04, v1.0.4]

\RequirePackage[dvipsnames, svgnames, x11names]{xcolor}
\RequirePackage{zref, zref-savepos, fp}
\RequirePackage{tikz}

\RequirePackage{kvoptions}

\SetupKeyvalOptions{%
  family=kn,%
  prefix=kn@%
}

\newdimen\noteLineWidth
\noteLineWidth=.5truept

\newdimen\dotsRadius
\dotsRadius=.8truept

\newdimen\noteLineDistance
\noteLineDistance=6truemm

\newdimen\VoD@mag
\VoD@mag=.5pt

%%%
\DeclareStringOption[.5truept]{linewidth}%
\DeclareStringOption[.8truept]{radius}%
\DeclareStringOption[6truemm]{distance}%
\DeclareStringOption[.5pt]{triangle}%

\ProcessKeyvalOptions* %

%%%
\setlength{\noteLineWidth}{\kn@linewidth}
\setlength{\dotsRadius}{\kn@radius}
\setlength{\noteLineDistance}{\kn@distance}
\setlength{\VoD@mag}{\kn@triangle}


%%%
```

```
\NewDocumentCommand{\SetNoteLineWidth}{O{.5truept}}{%
  \setlength{\noteLineWidth}{#1}
}
\NewDocumentCommand{\SetNoteDotRadius}{O{.8truept}}{%
  \setlength{\dotsRadius}{#1}
}
\NewDocumentCommand{\SetNoteLineDistance}{O{6truemm}}{%
  \setlength{\noteLineDistance}{#1}
}
\NewDocumentCommand{\SetNoteTriangleSize}{O{.5pt}}{%
  \setlength{\VoD@mag}{#1}
}

%%%
\newdimen\VDNT@currentXPos
\newdimen\VDNT@currentYPos
\newdimen\VDNT@Xinterval
\newdimen\VDNT@Yinterval
\newdimen\VDNT@notegoal

%%% \         notefill
\def\VDNT@pkgname{vodnote}
\global\newcount\VDNT@uniqe


%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

%%% \notefill
\NewDocumentCommand{\notefill}{ O{white!70!black} }{\par\bgroup
  \parindent\z@
  %%
  \@tempcnta\linewidth
  \@tempcntb\noteLineDistance
  \FPeval\VDNT@dotsNum{round(round(((\the)\@tempcnta/(\the)\@tempcntb
     )/2:0)*2:0)}%
  \VDNT@Xinterval\dimexpr(\linewidth)/\VDNT@dotsNum\relax
  \VDNT@Yinterval\VDNT@Xinterval
  %%
  \zsaveposy{\VDNT@pkgname.\the\VDNT@uniqe.TopPos}%
  %%
  \leavevmode\vfill\leavevmode
  \zsaveposy{\VDNT@pkgname.\the\VDNT@uniqe.BottomPos}%
  %%
```

```
  \VDNT@notegoal=\dimexpr
    \zposy{\VDNT@pkgname.\the\VDNT@uniqe.TopPos}sp
    -\zposy{\VDNT@pkgname.\the\VDNT@uniqe.BottomPos}sp
  \relax
  %%
  \noindent\smash{%
    \begin{tikzpicture}[xscale=0.996]
      \VDNT@currentYPos\z@
      \fill[#1] (\VDNT@Xinterval*\VDNT@dotsNum/2,\VDNT@currentYPos+\
          VoD@mag*4pt) -- ++(\VoD@mag*3pt,-\VoD@mag*4pt) -- ++(-\
          VoD@mag*6pt,0) -- cycle;
      \@whiledim\VDNT@currentYPos<\VDNT@notegoal\do{
        \VDNT@currentXPos\z@
        \draw[#1,line width=\noteLineWidth] (0,\VDNT@currentYPos) --
            (\linewidth,\VDNT@currentYPos);
        \foreach \k in{0,1,...,\VDNT@dotsNum}{%
          \VDNT@currentXPos=\dimexpr\VDNT@Xinterval*\k\relax
          \fill[#1] (\VDNT@currentXPos,\VDNT@currentYPos) circle [
              radius=\dotsRadius];
        }
        \advance\VDNT@currentYPos\VDNT@Yinterval\relax
      }
      \fill[#1] (\VDNT@Xinterval*\VDNT@dotsNum/2,\VDNT@currentYPos-\
          VDNT@Yinterval-\VoD@mag*4pt) -- ++(\VoD@mag*3pt,\VoD@mag*4pt
          ) -- ++(-\VoD@mag*6pt,0) -- cycle;
    \end{tikzpicture}%
  }%
  \egroup
  %%
  \global\advance\VDNT@uniqe\@ne
  \par
}


%%% \note
\NewDocumentCommand{\note}{ m O{white!70!black} }{\par\bgroup
  %%
  \@tempcnta\linewidth
  \@tempcntb\noteLineDistance
  \FPeval\VDNT@dotsNum{round(round(((\the)\@tempcnta/(\the)\@tempcntb
      )/2:0)*2:0)}%
  \VDNT@Xinterval\dimexpr\linewidth/\VDNT@dotsNum\relax
  \VDNT@Yinterval\VDNT@Xinterval
```

```
  %%
  \noindent
    \begin{tikzpicture}[xscale=0.996]
      \VDNT@currentYPos\z@
      \fill[#2] (\VDNT@Xinterval*\VDNT@dotsNum/2,\VDNT@currentYPos+\
          VDNT@Yinterval+\VoD@mag*4pt) -- ++(\VoD@mag*3pt,-\VoD@mag*4
          pt) -- ++(-\VoD@mag*6pt,0) -- cycle;    %
      \foreach \i in{1,2,...,#1}{
        \VDNT@currentXPos\z@
        \global\VDNT@currentYPos=\dimexpr\VDNT@Yinterval*\i\relax
        \draw[#2,line width=\noteLineWidth] (0,\VDNT@currentYPos) --
            (\linewidth,\VDNT@currentYPos);
        \foreach \k in{0,1,...,\VDNT@dotsNum}{
          \VDNT@currentXPos=\dimexpr\VDNT@Xinterval*\k\relax
          \fill[#2] (\VDNT@currentXPos,\VDNT@currentYPos) circle [
              radius=\dotsRadius];
        }
      }
      \fill[#2] (\VDNT@Xinterval*\VDNT@dotsNum/2,\VDNT@currentYPos-\
          VoD@mag*4pt) -- ++(\VoD@mag*3pt,\VoD@mag*4pt) -- ++(-\
          VoD@mag*6pt,0) -- cycle;    %
    \end{tikzpicture}%
  \egroup
  \par
}


%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

\NewDocumentCommand{\masumefill}{ O{white!70!black} }{\par\bgroup
  \parindent\z@
  %%
  \@tempcnta\linewidth
  \@tempcntb\noteLineDistance
  \FPeval\VDNT@dotsNum{round(round(((\the)\@tempcnta/(\the)\@tempcntb
     )/2:0)*2:0)}%
  \VDNT@Xinterval\dimexpr(\linewidth)/\VDNT@dotsNum\relax
  \VDNT@Yinterval\VDNT@Xinterval
  %%
  \zsaveposy{\VDNT@pkgname.\the\VDNT@uniqe.TopPos}%
  %%
  \leavevmode\vfill\leavevmode
  \zsaveposy{\VDNT@pkgname.\the\VDNT@uniqe.BottomPos}%
```

```
  %%
  \VDNT@notegoal=\dimexpr
    \zposy{\VDNT@pkgname.\the\VDNT@uniqe.TopPos}sp
    -\zposy{\VDNT@pkgname.\the\VDNT@uniqe.BottomPos}sp
  \relax
  %%
  \noindent\smash{%
    \begin{tikzpicture}[xscale=0.996]
      \VDNT@currentYPos\z@
      \fill[#1] (\VDNT@Xinterval*\VDNT@dotsNum/2,\VDNT@currentYPos+\
          VoD@mag*4pt) -- ++(\VoD@mag*3pt,-\VoD@mag*4pt) -- ++(-\
          VoD@mag*6pt,0) -- cycle;
      \@whiledim\VDNT@currentYPos<\VDNT@notegoal\do{
        \VDNT@currentXPos\z@
        \draw[#1,line width=\noteLineWidth] (0,\VDNT@currentYPos) --
            (\linewidth,\VDNT@currentYPos);
        \foreach \k in{0,1,...,\VDNT@dotsNum}{%
          \VDNT@currentXPos=\dimexpr\VDNT@Xinterval*\k\relax
          \draw[#1,line width=\noteLineWidth]
          (\VDNT@currentXPos,0) -- (\VDNT@currentXPos,\
              VDNT@currentYPos);
          \fill[#1] (\VDNT@currentXPos,\VDNT@currentYPos) circle [
              radius=\dotsRadius];
        }
        \advance\VDNT@currentYPos\VDNT@Yinterval\relax
      }
      \fill[#1] (\VDNT@Xinterval*\VDNT@dotsNum/2,\VDNT@currentYPos-\
          VDNT@Yinterval-\VoD@mag*4pt) -- ++(\VoD@mag*3pt,\VoD@mag*4pt
          ) -- ++(-\VoD@mag*6pt,0) -- cycle;
    \end{tikzpicture}%
  }%
  \egroup
  %%
  \global\advance\VDNT@uniqe\@ne
  \par
}


\NewDocumentCommand{\masume}{ m O{white!70!black} }{\par\bgroup
  %%
  \@tempcnta\linewidth
  \@tempcntb\noteLineDistance
  \FPeval\VDNT@dotsNum{round(round(((\the)\@tempcnta/(\the)\@tempcntb
```

```
    )/2:0)*2:0)}%
  \VDNT@Xinterval\dimexpr\linewidth/\VDNT@dotsNum\relax
  \VDNT@Yinterval\VDNT@Xinterval
  %%
  \noindent
    \begin{tikzpicture}[xscale=0.996]
      \VDNT@currentYPos\z@
      \fill[#2] (\VDNT@Xinterval*\VDNT@dotsNum/2,\VDNT@currentYPos+\
          VDNT@Yinterval+\VoD@mag*4pt) -- ++(\VoD@mag*3pt,-\VoD@mag*4
          pt) -- ++(-\VoD@mag*6pt,0) -- cycle;    %
      \foreach \i in{1,2,...,#1}{
        \VDNT@currentXPos\z@
        \global\VDNT@currentYPos=\dimexpr\VDNT@Yinterval*\i\relax
        \draw[#2,line width=\noteLineWidth] (0,\VDNT@currentYPos) --
            (\linewidth,\VDNT@currentYPos);
        \foreach \k in{0,1,...,\VDNT@dotsNum}{
          \VDNT@currentXPos=\dimexpr\VDNT@Xinterval*\k\relax
          \draw[#2,line width=\noteLineWidth] (\VDNT@currentXPos,\
              VDNT@Yinterval) -- (\VDNT@currentXPos,\VDNT@Yinterval*#1)
              ;
          \fill[#2] (\VDNT@currentXPos,\VDNT@currentYPos) circle [
              radius=\dotsRadius];
        }
      }
      \fill[#2] (\VDNT@Xinterval*\VDNT@dotsNum/2,\VDNT@currentYPos-\
          VoD@mag*4pt) -- ++(\VoD@mag*3pt,\VoD@mag*4pt) -- ++(-\
          VoD@mag*6pt,0) -- cycle;    %
    \end{tikzpicture}%
  \egroup
  \par
}

\endinput
```