`keisennote` Package Documentation

KKTeX

Version 1.0.3 (2025/09/17)

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`
- `xparse`, `calc`, `ifthen`
- `fp`
- `zref-savepos`
- `luatex85`, `url`, `expl3`, `xkeyval`

Load the package:

```
\usepackage{keisennote}
```

3 Commands

3.1 `\notefill`

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

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

- `<scale>` (optional, default: 0.5pt): size of triangular end markers.
- `<color>` (optional, default: white!70!black): color of lines and dots.

Example:

```
\notefill[0.6pt][Gray]
```

3.2 \note

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

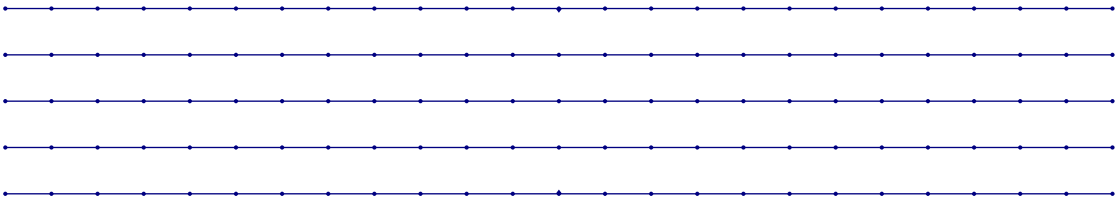
Typesets a short ruled block with a specified number of lines.

- `<lines>` (mandatory, integer ≥ 2): number of ruled lines.
- `<scale>` (optional, default: 0.5pt): size of triangular markers.
- `<color>` (optional, default: white!70!black): color of lines and dots.

Example:

```
\note{5}[0.4pt][NavyBlue]
```

This produces the following output.



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

3.3 \masumefill

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

Fills the current vertical space with grids and dots.

- `<scale>` (optional, default: 0.5pt): size of triangular end markers.
- `<color>` (optional, default: white!70!black): color of lines and dots.

Example:

```
\notefill[0.6pt][Gray]
```

3.4 \masume

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

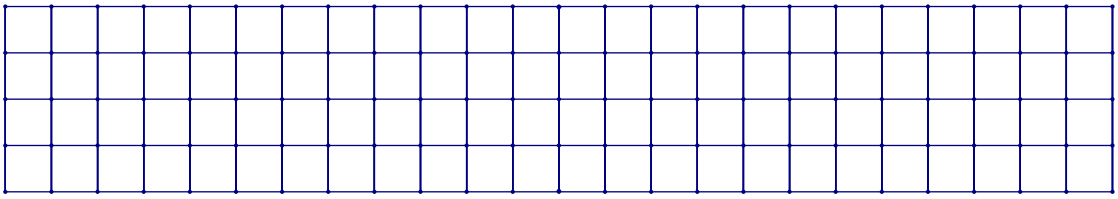
Typesets a short grid block with a specified number of lines.

- `<lines>` (mandatory, integer ≥ 2): number of ruled lines.
- `<scale>` (optional, default: 0.5pt): size of triangular markers.
- `<color>` (optional, default: white!70!black): color of lines and dots.

Example:

```
\masume{5}[0.4pt][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:

- `\noteLineWidth`: thickness of ruled lines (default: 0.5pt)
- `\dotsRadius`: radius of intersection dots (default: 0.8pt)
- `\noteLineDistance`: vertical distance between lines (default: 6mm)

Example:

```
\setlength{\noteLineDistance}{7truemm} % A-kei spacing
```

5 Examples

5.1 Short Note Block

```
\note{4}
```

5.2 Full Page Fill

```
\notefill
```

6 Implementation Notes

- Notebook lines are drawn using TikZ, with dots placed at equal horizontal intervals.
- The number of dots per line is automatically calculated using the `fp` package.
- Triangular markers are added at the top and bottom of each ruled block.
- `\notefill` measures available vertical space using `zref-savepos`.

7 License

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

8 Version History

- **v1.0.0 (2025/09/13)** — Initial public release.
- **v1.0.3 (2025/09/13)** — KKTeX added `\masume` and `\masumefill`.

9 Source Code

```
\ProvidesPackage{keisennote}[2025/09/17, v1.0.3]

\RequirePackage[dvipsnames, svgnames, x11names]{xcolor}
\RequirePackage{luatex85, zref, zref-savepos, fp, url, expl3, xkeyval
   }
\RequirePackage{tikz}\RequirePackage{graphicx}
\usetikzlibrary{shapes, positioning, shadows, shadows.blur, patterns,
    decorations.text, decorations.pathmorphing, arrows.meta, calc,
   snakes, intersections}
\RequirePackage{xparse, calc, ifthen}

\newdimen\VoD@mag
\VoD@mag=.5pt
\newdimen\noteLineWidth
\newdimen\dotsRadius
\newdimen\noteLineDistance
\noteLineWidth.5truept\relax% <-
\dotsRadius.8truept\relax%  <-
```

```
\noteLineDistance=6truemm\relax% <-     A : 7 truemmB : 6 truemm

%%%
\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{.5pt} O{white!70!black} }{\par\
    bgroup
  \VoD@mag=#1
  \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[#2] (\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[#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];
        }
        \advance\VDNT@currentYPos\VDNT@Yinterval\relax
      }
      \fill[#2] (\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{.5pt} O{white!70!black} }{\par\bgroup

  %%
  \VoD@mag=#2
  %%
  \@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[#3] (\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[#3,line width=\noteLineWidth] (0,\VDNT@currentYPos) --
            (\linewidth,\VDNT@currentYPos);
        \foreach \k in{0,1,...,\VDNT@dotsNum}{
          \VDNT@currentXPos=\dimexpr\VDNT@Xinterval*\k\relax
          \fill[#3] (\VDNT@currentXPos,\VDNT@currentYPos) circle [
              radius=\dotsRadius];
        }
      }
      \fill[#3] (\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{.5pt} O{white!70!black} }{\par\
    bgroup
  \VoD@mag=#1
  \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[#2] (\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[#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,0) -- (\VDNT@currentXPos,\VDNT@notegoal
              -.5\VDNT@Yinterval);
          \fill[#2] (\VDNT@currentXPos,\VDNT@currentYPos) circle [
              radius=\dotsRadius];
        }
        \advance\VDNT@currentYPos\VDNT@Yinterval\relax
      }
      \fill[#2] (\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{.5pt} O{white!70!black} }{\par\
    bgroup
  %%
  \VoD@mag=#2
  %%
  \@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[#3] (\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[#3,line width=\noteLineWidth] (0,\VDNT@currentYPos) --
            (\linewidth,\VDNT@currentYPos);
        \foreach \k in{0,1,...,\VDNT@dotsNum}{
          \VDNT@currentXPos=\dimexpr\VDNT@Xinterval*\k\relax
          \draw[#3,line width=\noteLineWidth] (\VDNT@currentXPos,\
              VDNT@Yinterval) -- (\VDNT@currentXPos,\VDNT@Yinterval*#1)
              ;
          \fill[#3] (\VDNT@currentXPos,\VDNT@currentYPos) circle [
              radius=\dotsRadius];
        }
      }
      \fill[#3] (\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
```