WriteOnGrid [en]
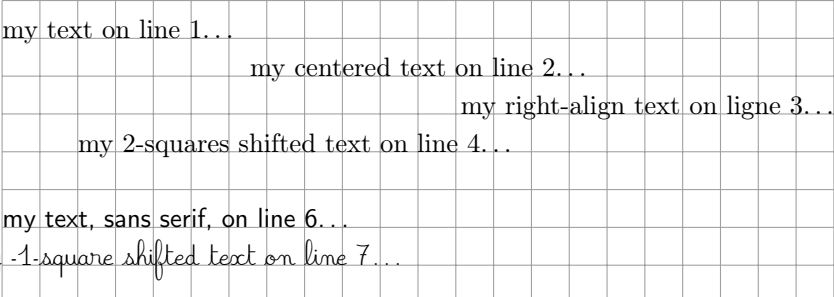
To write on lines
of a grid.

Version 0.1.0 – 16/01/2023

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https://github.com/cpierquet/WriteOnGrid

▶ Some commands to create a grid (5x5 or Seyes) and to write « on » the lines.

▶ Possibility to personnalize size, margins, ...

my text on line 1...

my centered text on line 2...

my right-align text on ligne 3...

my 2-squares shifted text on line 4...

my text, sans serif, on line 6...

my -1-square shifted text on line 7...

my text on line 1...

my text on line 2...

$1 + \frac{1}{2} = \frac{3}{2}$ et $(1+x)^2 = 1 + 2x + x^2$ on line 3...

my text on line 4...

$\LaTeX$

$\mathrm{pdf}\LaTeX$

$\mathrm{Lua}\LaTeX$

$\mathrm{Ti}k\mathrm{Z}$

$\TeX\mathrm{Live}$

MiKTeX

Introduction

1   The package

1.1   Loading of the package, used packages

The package writeongrid loads within the preamble :

```latex
\usepackage{writeongrid}
```
Code LaTeX

It's mostly compatible with latex, pdflatex, lualatex or xelatex compilation !

It loads the following packages and libraries :

— tikz with the librairies ⟨**calc**⟩ and ⟨**positionning**⟩ ;
— xstring, xparse and simplekv.

1.2   The package itself

The idea is to, thanks to TikZ, propose commands and environment to work with a grid, and to write on the lines.

```latex
%environment, with keys to prepare the grid
%commands to write or pass a line

\begin{EnvGrid}[keys]<color>
    \WriteLine[keys]<alignment>{text}
    \PassLine
\end{EnvGrid}
```
*Code LaTeX*

1.3   Overall functioning

The grid is given by the number of squares (nbCol×nbRow), and after we can adjust with *overtakings* to enlarge the grid onto the margins of the paper (left or right). We can also *adjust* the global margin, to begin the lines differently.

For example, a 5×5 grid :

— with a size 24x5 squares ;
— with an overtaking by 2 squares at the left and 3 squares at the right ;
— with a global margin of 1 square ;
— with a *border* to show the *basis* grid.
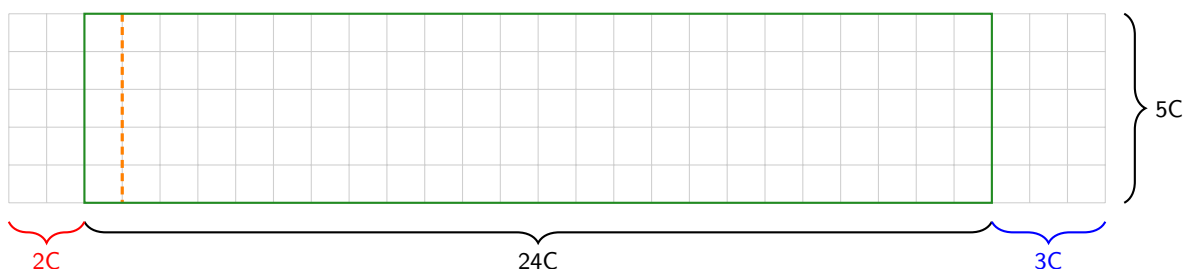
The tikzpicture is *bounded* by the *border*, in order to specify overtakings or alignment.

Le left-border of the *border* is aligned on the left-margin of the page, so take care of the \parindent.

2 Commands, keys and options

2.1 The environement

```
%environment, with keys to prepare the grid

\begin{EnvGrid}[keys]<color>
    ...
\end{EnvGrid}
```
Code LaTeX

The first argument, *optional*, between [...] give the ⟨**keys**⟩ :

— ⟨**NumSwuares**⟩ to specify the size of the grid, under `(nbCol)x(nbRow)` ;   default : ⟨**17x5**⟩
— ⟨**Unit**⟩ to specify the scale of the grid ;   default : ⟨**1**⟩
— ⟨**Margin**⟩ to specify the global margin at the beginning of the lines ;   default : ⟨**0**⟩
— ⟨**Enlarge**⟩ to specify the squares-overtakings, globally with `LR` or side by side with `L`/`R` ;   default : ⟨**0**⟩
— the boolean ⟨**Border**⟩ to display the basis border of the grid ;   default : ⟨**false**⟩
— the boolean ⟨**Seyes**⟩ to work with a Seyes grid.   default : ⟨**false**⟩

The second argument, *optional*, between <...> is the major color of the grid, ⟨**lightgray**⟩ by default.
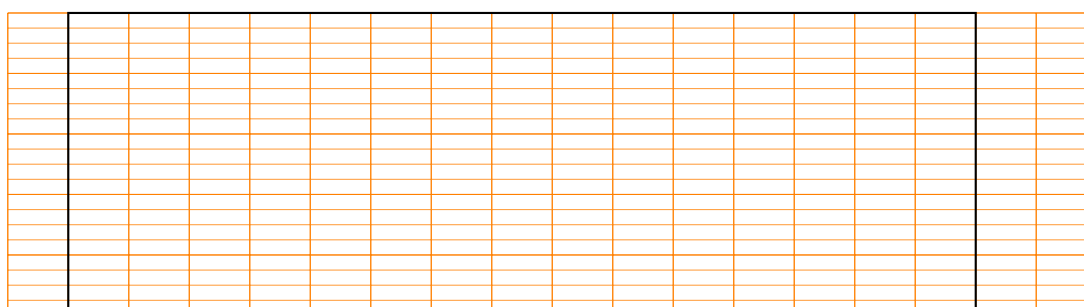
```
%the borders are added to show the basis grid

%30x5 small squares, w/o overtakings, basis color
\begin{EnvGrid}[NumSquares=30x5]
\end{EnvGrid}

%36x8 small squares, overtakings 3/3, LightSteelBlue color
\begin{EnvGrid}[NumSquares=36x8,Enlarge=3/3]<LightSteelBlue>
\end{EnvGrid}

%15x5 big squares, overtakings 1/2, orange, centered
\begin{center}
    \begin{EnvGrid}[NumSquares=15x5,Enlarge=1/2,Seyes]<orange>
    \end{EnvGrid}
\end{center}
```
Code LaTeX
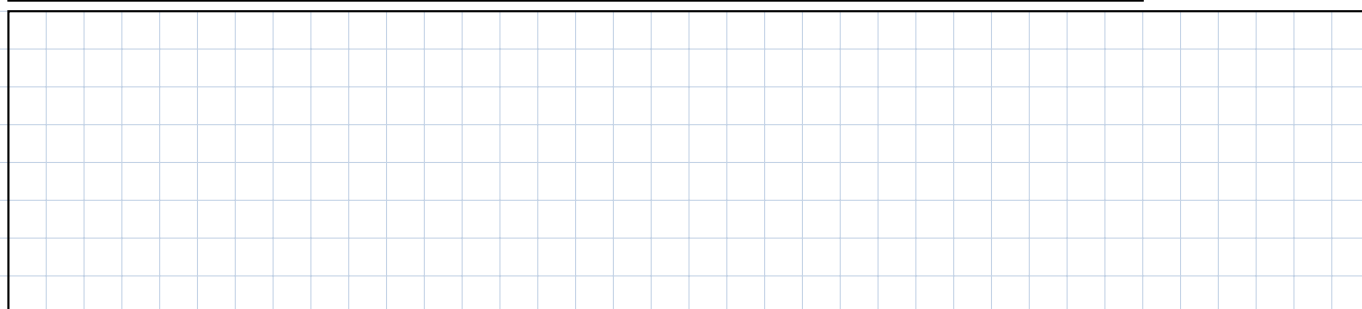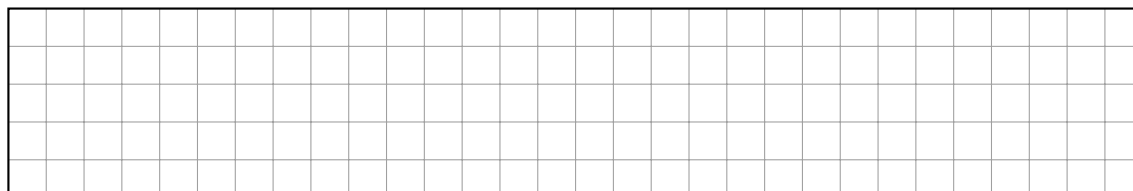
2.2 Write on the lines

The idea is to write on the created grid. In order to write *right* on the lines, we can :

— give the lines one by one ;

— avoid using multilines paragraps, items ;

— pass a line.

```latex
...
    %to write the lines, one by one
    \WriteLine[keys]<alignment>{text}
    %to pass the ligne
    \PassLine
...
```

The fisrt argument, *optional*, between [...] give the ⟨**keys**⟩ :

— ⟨**OffsetH**⟩, in squares, to shift the text from the margin ;   default : ⟨**0**⟩

— ⟨**OffsetV**⟩ to shift vertically the line ;   default : ⟨**0pt**⟩

— ⟨**Scale**⟩ to specify the scale of the given text.   default : ⟨**1**⟩

the second argument, *optional*, between <...> is the horizontal alignment (⟨**left/center/right**⟩) of the text in the basis *border*, ⟨**left**⟩ by default.

Le third argument, *mandatory* and between {...} is the text, eventually with options.

```latex
\begin{EnvGrid}[NumSquares=36x8]
    \WriteLine{my text on ligne 1\ldots}
    \WriteLine<center>{\ttfamily my tetetype text centered on line 2\ldots}
    \WriteLine<right>{right-align text on line 3\ldots}
    \WriteLine[OffsetH=0.1]{\textcolor{red}{red text, 1mm-shifted\ldots}}
    \PassLine
    \WriteLine[Scale=0.5]{\sffamily sans serif text, reduced by 50\,\%, on line 6\ldots}
    \WriteLine[OffsetH=3]{\cursive 3 squares-shited text\ldots}
\end{EnvGrid}
```

my text on ligne 1...

my tetetype text centered on line 2...

right-align text on line 3...

red text, 1mm-shifted...

sans serif text, reduced by 50 %, on line 6...

3 square

```latex
\begin{EnvGrid}[NumSquares=22x4,Margin=1,Enlarge=2/3,Seyes,Border]
    \WriteLine[Scale=1.5]{\textcolor{red}{red text on line 1\ldots}}
    \WriteLine[Scale=1.15,OffsetH=1]{$(1+x)^2=1+2x+x^2$ on line 2, with 1-square offset\ldots}
    \WriteLine[OffsetH=-1]{\textcolor{blue}{blue text, back to left, on line 3\ldots}}
\end{EnvGrid}
```

red text on line 1...

$(1+x)^2 = 1 + 2x + x^2$ on line 2, with 1-square offset...

blue text, back to left, on line 3...

History

`v0.1.0 :`   Initial version