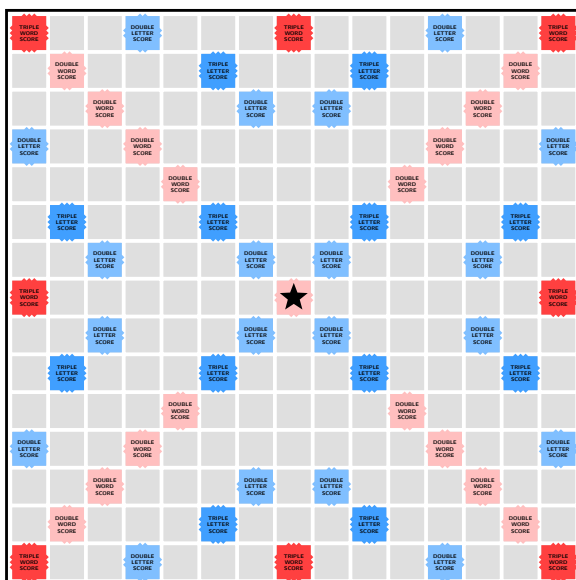


Version 0.1.5 - 23/01/2024

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<https://github.com/cpierquet/Scrabble>

- Some commands to display a Scrabble board, with or without words.
- English, French, German or Spanish version for points and labels.
- Ideas from <https://tex.stackexchange.com/questions/194780/tikz-drawing-a-rectangle-with-spikes-on-borders>



Thanks to Denis Bitouzé and Patrick Bideault for help and ideas !

L^AT_EXpdfL^AT_EX

Lua^{AT}FX

TikZ

T_FXLive

MiKTeX

Introduction

1 The Scrabble package

1.1 Source

Some ideas are from <https://tex.stackexchange.com/questions/194780/tikz-drawing-a-rectangle-with-spikes-on-borders>, with proposition from Mark Wibrow.

This package is *build* within styles and ideas from Mark Wibrow.

1.2 Loading of the package, used packages

The package Scrabble loads within the preamble :

```
\usepackage{Scrabble}
```

Code \LaTeX

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

It loads the following packages and libraries :

- tikz with `\calc` with the tikzlibraries `\calc` and `\shapes.geometric` ;
- pgf and pgffor ;
- xstring, xparse, simplekv and listofitems.

1.3 The package itself

The idea is to, thanks to TikZ, propose commands or environments to display a Scrabble™ board :

- *independent* ;
- in an *environment* with words.

```
%independent command for the empty board
\ScrabbleBoard<language>[keys]

%environment with word(s)
\begin{EnvScrabble}<language>[keys]
  \ScrabblePutWord[orientation]{word}{coordinates of the beginning cell}
\end{EnvScrabble}
```

Code \LaTeX

1.4 Languages

The commands, environments et keys are in english, but cells can be displayed in :

- english (code ISO 639-1 EN) ;
- french (code ISO 639-1 FR) ;
- german (code ISO 639-1 DE) ;
- spanish (code ISO 639-1 ES).

2 Commands, keys and options

2.1 The board, standalone

The first argument, *optional*, between `<...>` is the **<language>** of the display, form the list :

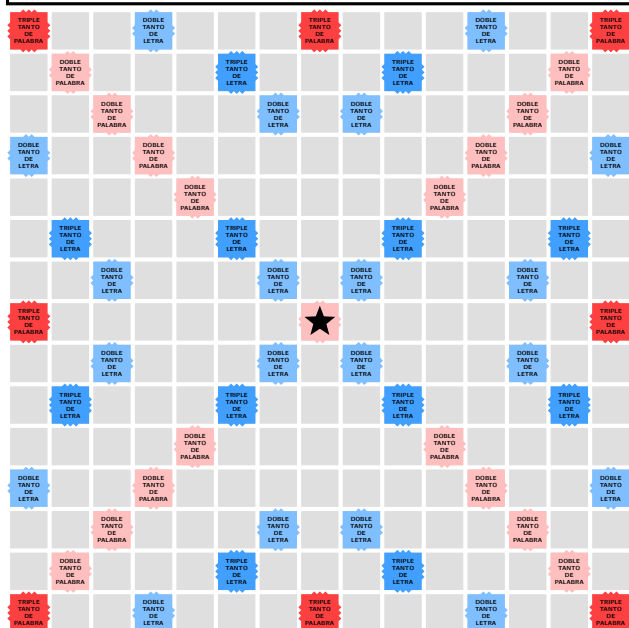
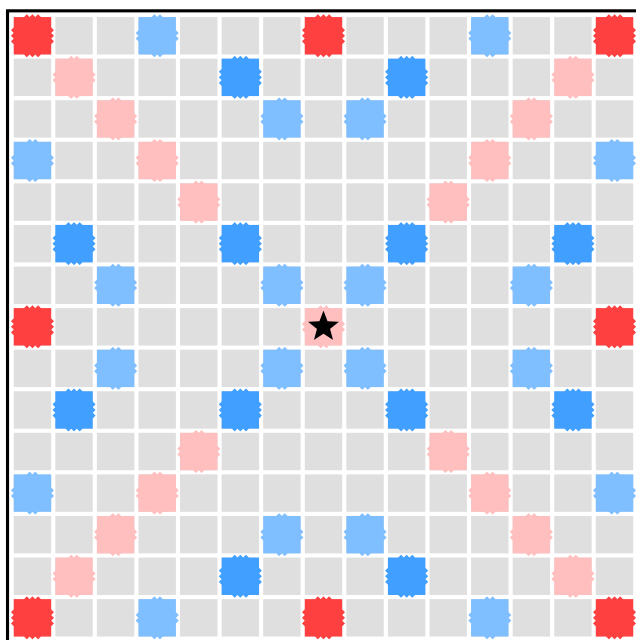
<EN> (english, default), **<FR>** (french), **<DE>** (german) et **<ES>** (spanish).

The second argument, *optional*, between `[...]` give the **<keys>** :

- **<Scale>** for the display (the initial unit is 1 cm) ; default : **<1>**
- **<ScaleLabels>** for the cell's names ; défaut : **<1>**
- the boolean **<Border>** pour print a border outside the board ; default : **<true>**
- the boolean **<Labels>** to print *names* of the special cells ; default : **<true>**
- the boolean **<Help>** pour print numbers to repere th cells ; default : **<false>**

```
\ScrabbleBoard[Labels=false,Scale=0.55]\\ %board without cell's names
\ScrabbleBoard<ES>[Scale=0.55,Border=false] %board in spanish, without border
```

Code *MTX*



2.2 The board with words

Here we can use the environment with the specific command in order to print words on the board.

For the *environment*, the options are the same as for the independent command !

For putting word on the board :

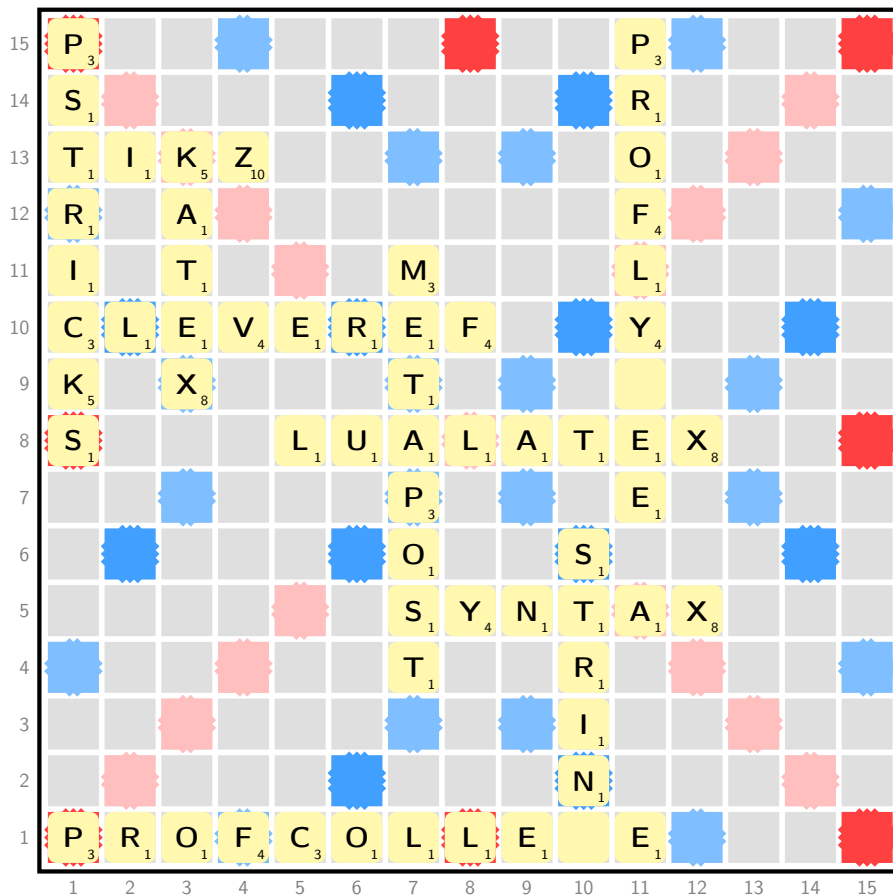
- the first argument, *optional*, between [...] is the orientation of the word, **H** (by default) or **V** ;
- the second argument, *mandatory*, between {...}, is the word, with uppercase or lowercase letters ;
- the last argument, *mandatory*, between {...}, is the coordinates of the first cell for first lettre (the cell (1;1) is south-west corner).

Observation 1 : the chosen language will display the right points in the til !

Observation 2 : the *white* (or *joker*) is coded by the character *.

Code \LaTeX

```
\begin{EnvScrabble}[Scale=0.75,Labels=false,Help]
  \ScrabblePutWord{TIKZ}{1,13}
  \ScrabblePutWord[V]{pstricks}{1,15}
  \ScrabblePutWord[V]{KaTeX}{3,13}
  \ScrabblePutWord{cleveref}{1,10}
  \ScrabblePutWord[V]{METAPOST}{7,11}
  \ScrabblePutWord{LUALATEX}{5,8}
  \ScrabblePutWord[V]{ProfLy*ee}{11,15}
  \ScrabblePutWord{PROFCOLLE*E}{1,1}
  \ScrabblePutWord{SYNTAX}{7,5}
  \ScrabblePutWord[V]{STRIN*}{10,6}
\end{EnvScrabble}
```

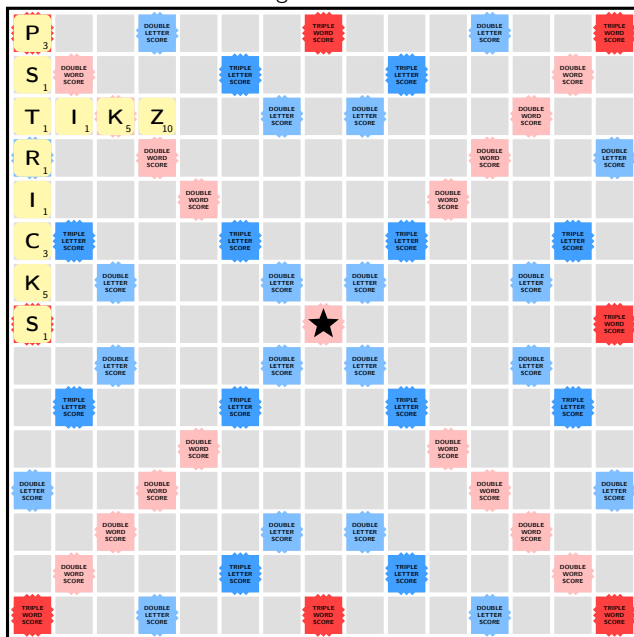


```

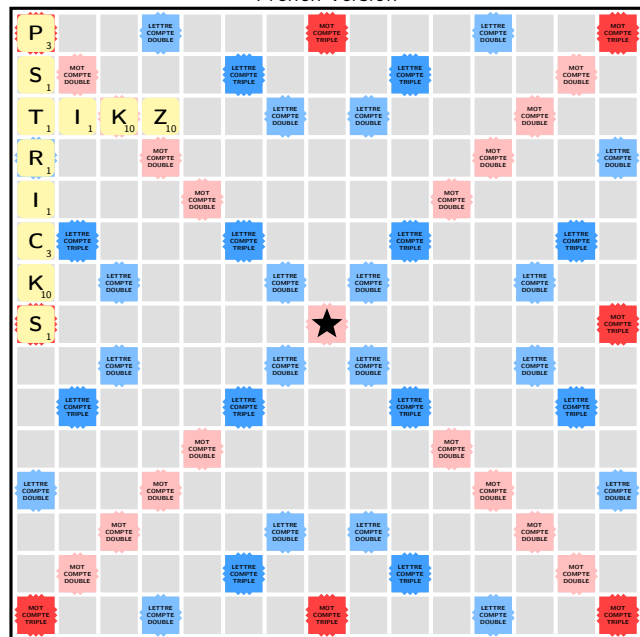
\begin{EnvScrabble}[Scale=0.55]
  \ScrabblePutWord{tikz}{1,13} \ScrabblePutWord[V]{PSTRICKS}{1,15}
  \draw (7,15) node[font=\LARGE\sffamily] {English version} ;
\end{EnvScrabble}~~~
\begin{EnvScrabble}<FR>[Scale=0.55]
  \ScrabblePutWord{tikz}{1,13} \ScrabblePutWord[V]{PSTRICKS}{1,15}
  \draw (7,15) node[font=\LARGE\sffamily] {French version} ;
\end{EnvScrabble}~~~
\begin{EnvScrabble}<DE>[Scale=0.55]
  \ScrabblePutWord{tikz}{1,13} \ScrabblePutWord[V]{PSTRICKS}{1,15}
  \draw (7,15) node[font=\LARGE\sffamily] {German version} ;
\end{EnvScrabble}~~~
\begin{EnvScrabble}<ES>[Scale=0.55]
  \ScrabblePutWord{LaTeX}{1,14} \ScrabblePutWord[V]{Madrid}{2,15}
  \draw (7,15) node[font=\LARGE\sffamily] {Spanish version} ;
\end{EnvScrabble}

```

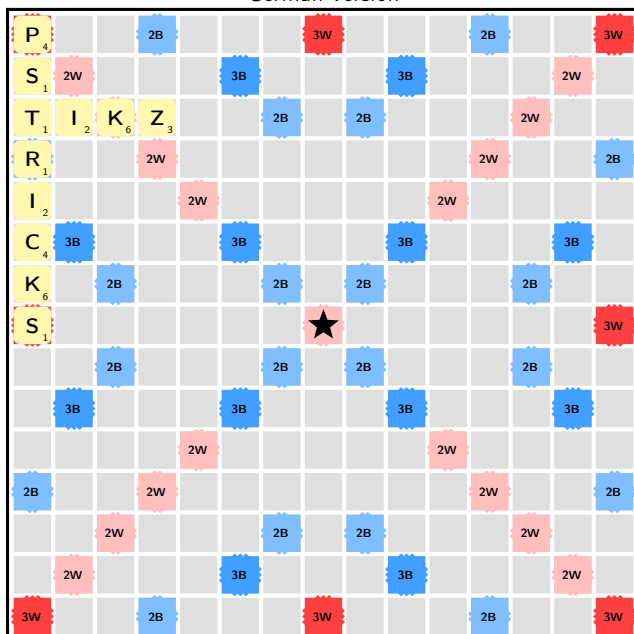
English version



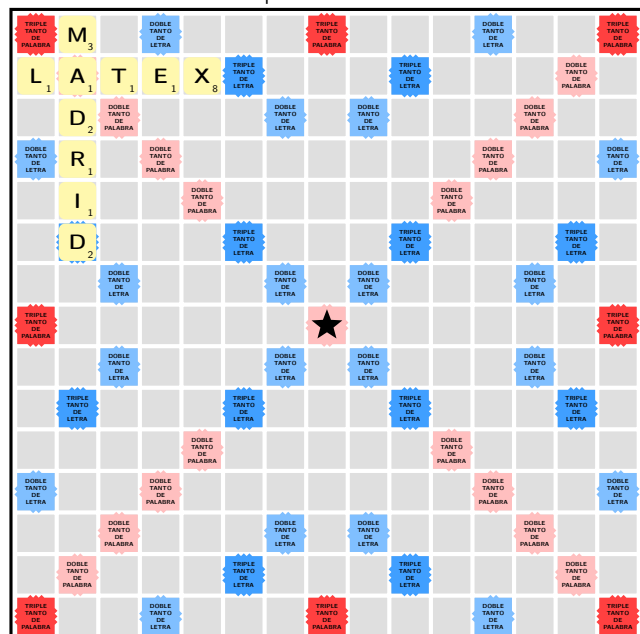
French version



German version



Spanish version



2.3 *Inline* word

The idea is to propose a command to insert a word in *online* mode, with automatic adjustment of size and position.

```
%command to put inline word
\ScrabbleWord[keys]{word}
```

Code \LaTeX

The first argument, *optional*, between [...] allows you to configure the **<keys>**:

- **<Colback>** for the color of the pieces ; default: **<yellow!40>**
- **** for the font ; default: **<\bfseries\sffamily>**
- **<Colfont>** for the color of the characters ; default: **<black>**
- **<Lang>** to choose the language (for the number of points) ; default: **<EN>**
- **<Offset>** to specify horizontal spacing between pieces ; default: **<0.1pt>**
- **<Scale>** to specify a base scale for texts ; default: **<0.6>**
- **<Score>** which is a boolean to display the score of each piece. default: **<true>**

Note 1 : the code is responsible for positioning the pieces for *satisfactory* alignment and scaling based on the active font.

Note 2 : the *blank* (or *wildcard*) is obtained by the character *.

```
Online Scrabble word test positioning \ScrabbleWord{TE*ST} to see !
```

Code \LaTeX

Online Scrabble word test positioning T E * S T to see !

```
{\Huge\sffamily Test positioning \ScrabbleWord[Colback=teal!5,Colfont=orange]{PYTHAG*RE} to see !}
```

Code \LaTeX

Test positioning P₃ Y₄ T₁ H₄ A₁ G₂ * R₁ E₁ to see !

```
\scalebox{3}[3]{Positioning \ScrabbleWord[Lang=DE,Font=\ttfamily,Scale=0.75]{PYTHAG*RE} to see !}
```

Code \LaTeX

Positioning P₄ Y₁₀ T₁ H₂ A₁ G₂ * R₁ E₁ to see !

```
{\LARGE Test positioning \ScrabbleWord[Score=false,Offset=1pt,Colback=orange!50]{PSTRICKS} to see !}
```

Code \LaTeX

Test positioning P₃ S₃ T₁ R₁ I₁ C₃ K₃ S₁to see !

2.4 Special letters

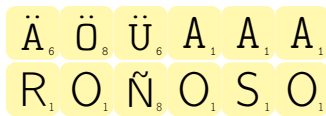
It is possible to use special characters, for the languages <DE> and <ES>, but for compatibility reasons, special characters are *coded* by numbers :

- 0 code the letter $\boxed{\ddot{A}}$ with 6 points ;
- 1 code the letter $\boxed{\ddot{O}}$ with 8 points ;
- 4 code the letter $\boxed{\ddot{U}}$ with 6 points ;
- 6 code the *letter* \boxed{CH} with 5 points ;
- 7 code the letter $\boxed{\tilde{N}}$ with 8 points ;
- 8 code the *letter* \boxed{RR} with 8 points ;
- 9 code the *letter* \boxed{LL} with 8 points.

Code \LaTeX

```
{\Huge \ScrabbleWord[Lang=DE,Font=\ttfamily,Scale=0.75]{104AAA}}
```

```
{\Huge \ScrabbleWord[Lang=ES,Font=\sffamily,Scale=0.75]{R070S0}}
```



History

v0.1.5 : Special letters for <DE> and <ES>
v0.1.4 : Command to insert *inline* words
v0.1.3 : Words in uppercase or lowercase, adjusted codes for language (ISO 639-1)
v0.1.2 : Key <ScaleLabels> to modify scale of the cell's names
v0.1 : Initial version