Scrabble [en]

A board of Scrabble,

with words or not.
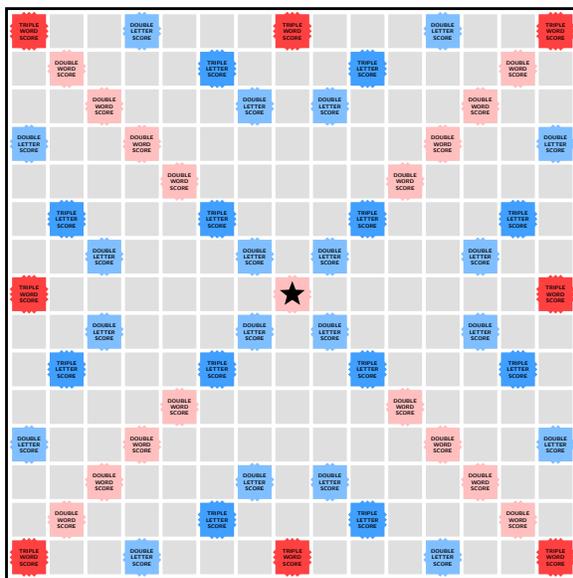
Scrabble™, from Hasbro™ and Mattel™.

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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

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LATEX

pdfLATEX

LuaLATEX

TikZ

TEXLive

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}
```

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 Ti*k*Z, 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}
```

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 **⟨langage⟩** of the display, form the list :

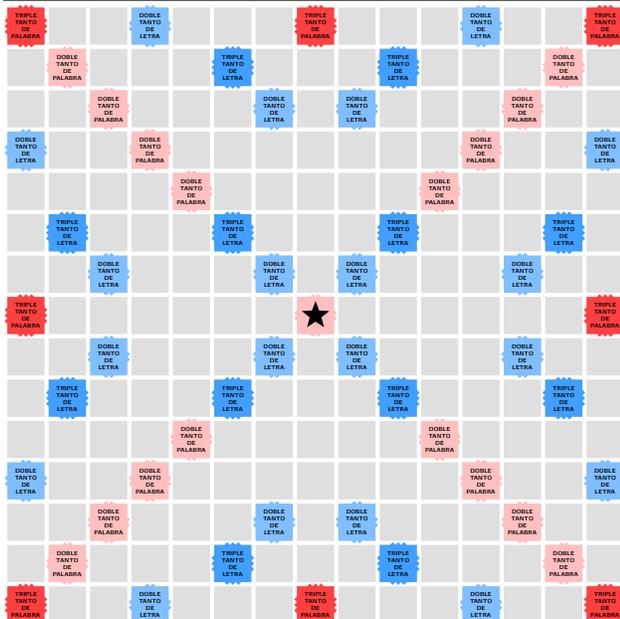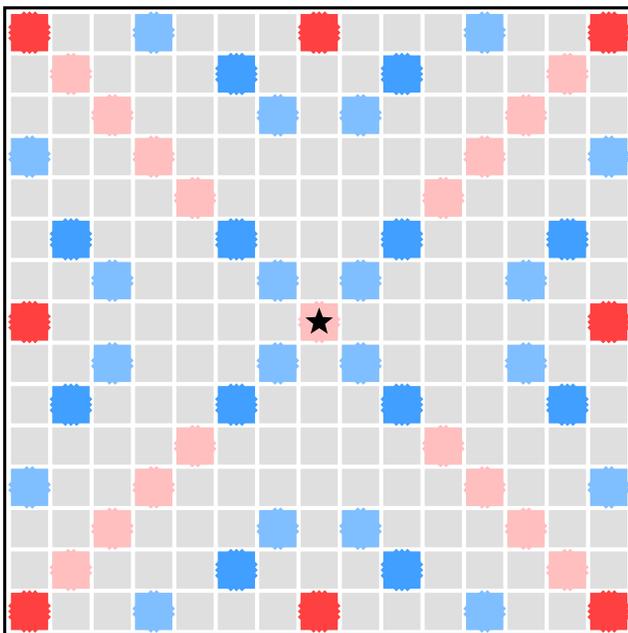⟨**EN**⟩ (english, default), ⟨**FR**⟩ (french), ⟨**DE**⟩ (german) et ⟨**ES**⟩ (spanish).

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 reperate 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
```

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 fisrt 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}
```
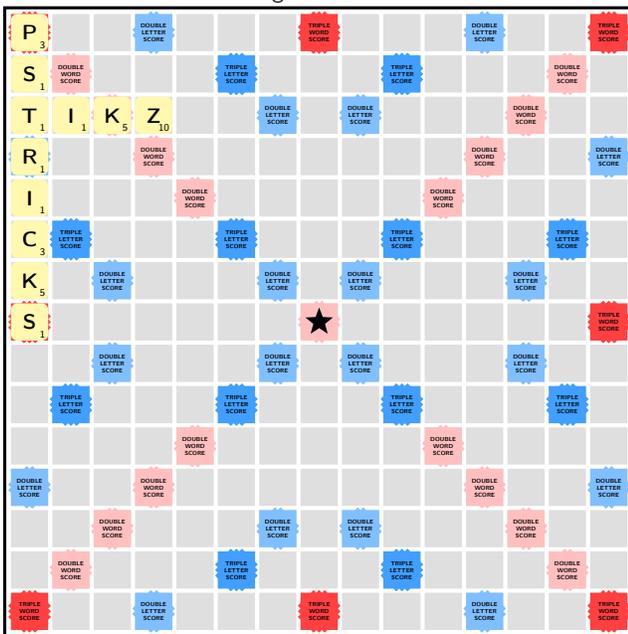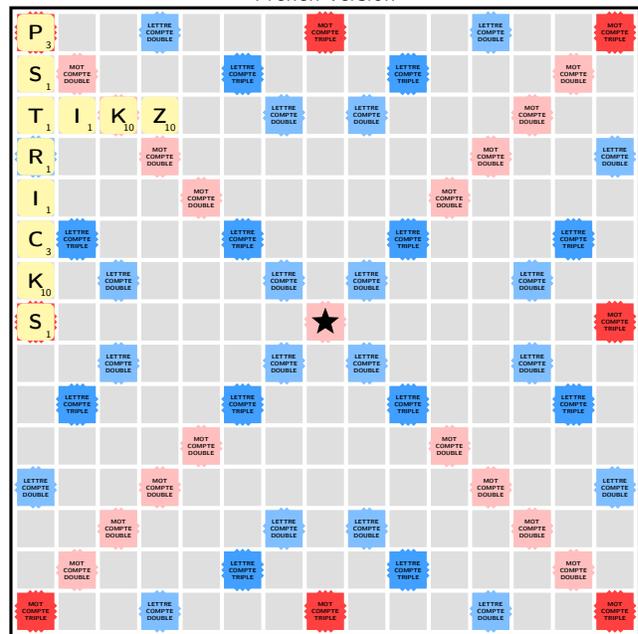
```
\begin{EnvScrabble}[Scale=0.55]
    \ScrabblePutWord{tikz}{1,13} \ScrabblePutWord[V]{PSTRiCKS}{1,15}
    \draw (7,15) node[font=\LARGE\sffamily] {English version} ;
\end{EnvScrabble}~~~
\begin{EnvScrabble}<FR>[Scale=0.55]
    \ScrabblePutWord{tikz}{1,13} \ScrabblePutWord[V]{PSTRiCKS}{1,15}
    \draw (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}
```
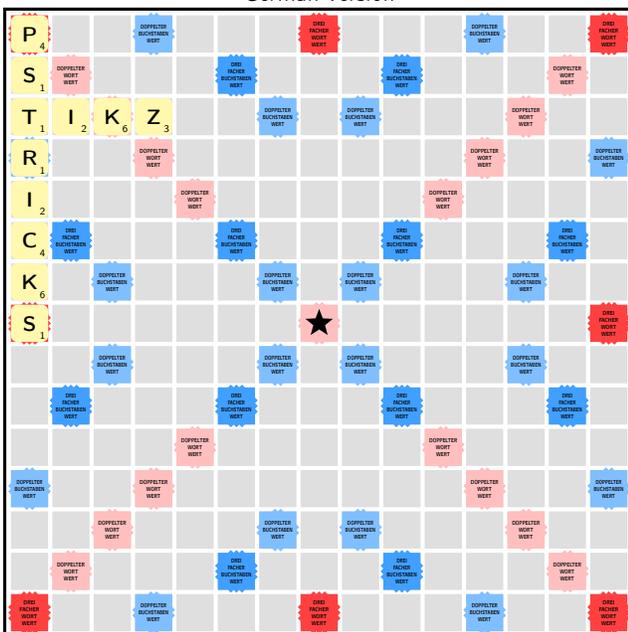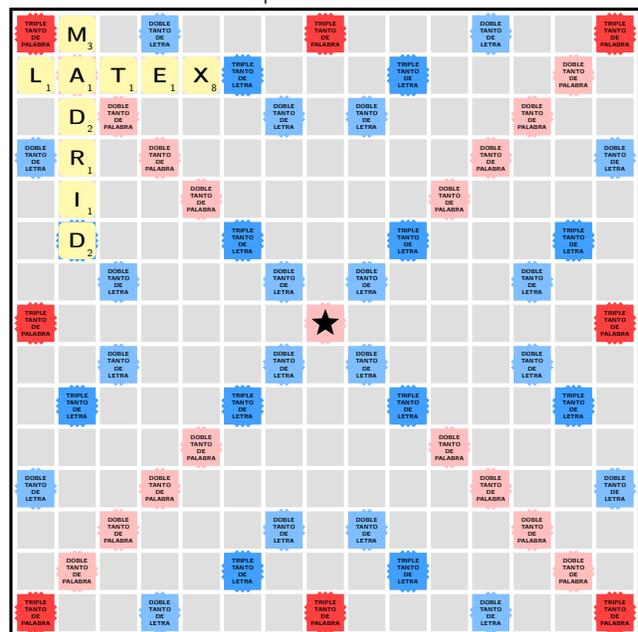
English version

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}
```

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

- ⟨**Colback**⟩ for the color of the pieces ;   default: ⟨**yellow!40**⟩

- ⟨**Font**⟩ for the font ;   default: ⟨**\bfseries\sffamily**⟩

- ⟨**Colfonte**⟩ 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 !
```

Online Scrabble word test positioning T₁ E₁   S₁ T₁ to see !

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

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 !}
```

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 !}
```

Test positioning   P S T R I C K S to 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 $\boxed{\text{Ö}}$ with 8 points ;

- 1 code the letter $\boxed{\text{Ä}}$ with 6 points ;

- 4 code the letter $\boxed{\text{Ü}}$ with 6 points ;

- 6 code the *letter* $\boxed{\text{CH}}$ with 5 points ;

- 7 code the letter $\boxed{\text{Ñ}}$ with 8 points ;

- 8 code the *letter* $\boxed{\text{RR}}$ with 8 points ;

- 9 code the *letter* $\boxed{\text{LL}}$ with 8 points.

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

{\Huge \ScrabbleWord[Lang=ES,Font=\sffamily,Scale=0.75]{RO7OSO689}}
```

$$\text{Ä}_6 \ \text{Ö}_8 \ \text{Ü}_6 \ \text{A}_1 \ \text{A}_1 \ \text{A}_1$$

$$\text{R}_1 \ \text{O}_1 \ \text{Ñ}_8 \ \text{O}_1 \ \text{S}_1 \ \text{O}_1 \ \text{CH}_5 \ \text{RR}_8 \ \text{LL}_8$$

History

`v0.1.6 :`   Bugfix with *joker* ; enhancements for <DE> board
`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