

The `elzcards` class*

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1 Introduction

`elzcards` is a class meant to be an easy and flexible way to typeset business cards, index cards and flash cards, with its back side as an option. You must bother only by setting the paper size, margins and the design of your card¹. Everything else is done by `elzcards`.

2 Writing business cards

Please load the class. It hasn't options. Any option you specify will be passed to `article` class, in which `elzcards` is based on.

```
\documentclass{elzcards}
```

Now I'll recommend you inserting the `geometry` package and setting the margins according to

1. the desired size of your card,
2. the paper you'll use,
3. the printable area of your printer.

For example, for the default business card size (3.5 inches x 2 inches) in a letter paper, you may use:

```
\usepackage[letterpaper,landscape,vmargin={0.25in,0.25in},hmargin={0.25in,0.25in}]  
{geometry}
```

After beginning your document, the only command you would use to produce the cards is `\MakeBC`, described below.

`\MakeBC` `\MakeBC[*][*][<{xlen}>][<{ylen}>][<{zlen}>]{<{front side design}>}[<{back side design}>]` The only mandatory argument is the design of the card's front face. Everything you put inside `{}` will be stored in a box of size `<{xlen}>` x `<{ylen}>` and repeated in a grid until the page was filled.

After closing the braces of the front side design of the card you can specify its back side design, if desired, as the last optional argument of `\MakeBC`² (with square brackets).

Both `<{xlen}>` and `<{ylen}>` are optional parameters to `\MakeBC`, and are \LaTeX lengths; you can change the size of your cards specifying these lengths. Default values are, as stated before: 3.5 inches x 2 inches.

*This document corresponds to `elzcards` v1.00, dated 2015/03/05.

¹No predefined design is given; you must typeset your card.

²There is no need to specify the `twoside` option when loading the class even if you are writing twosided cards, but you must compile it twice.

The third optional parameter $\langle zlen \rangle$ is also a length and has different meanings, depending on how you execute `\MakeBC`, i.e. starred or not starred. This will be explained just after clarifying what starred versions of `\MakeBC` are.

Looking at the usage of `\MakeBC` we see the two optional stars, so we have three possible behaviors. Issuing `\MakeBC` without stars will print a grid of cards with segments and crosses as crop marks. The starred version `\MakeBC*` will print dots as crop marks, and the double starred version `\MakeBC**` will print lines between all the cards, like a grill. This may be useful also if you want the line as the border of the card, part of the design itself of the card³.

Finally, the $\langle zlen \rangle$ dimension represents the length of the segments when the standard cutting marks applies (no stars); also it represents the diameter of the dots (with one star), and the width of the line (with two stars). Its default values are: $\langle 0.1mm \rangle$, $\langle 1pt \rangle$ and $\langle 0.1mm \rangle$ respectively.

3 Writing index and flash cards

When writing other type of cards, like index cards and flash cards, you need to store all your cards in a stack and run the macro used to process them, that is `\MakeIC` (or `\MakeFC`, which is an alias to `\MakeIC`).

`\Card` `\Card{\langle front side design \rangle}[\langle back side design \rangle]` With this macro you add a card into the stack. You can add the number of cards you want with more instances of `\Card`. All these cards will be processed when you issue `\MakeIC` with the following syntax:

`\MakeIC` `\MakeIC[*][*][\langle xlen \rangle][\langle ylen \rangle][\langle zlen \rangle]` The syntax is the same as for business cards but without the
`\MakeFC` business card's specific arguments because you've added all cards into the stack before. It accepts two optional stars and three optional lengths as parameters⁴.

4 Final words

In the same document you can write many different sets of cards. You can combine business cards with index cards in the order you want; also using different sizes of cards, different designs, cropping options and even changing the paper geometry with `\geometry`.

If only one card has back side, the whole document behaves like a twosided document, i.e. it will swap horizontal margins and will have interleaved blank pages when a set of cards has only front side; this is the behavior of `twoside` option but you don't have to specify it by hand when loading the class.

Take into account that this is L^AT_EX, so you can define your own command and use it inside the `\MakeIC` and `\MakeBC`, like in the following example with `\mycenter`.

5 All-in-one example

The following example is included as `elzcards-example.tex`.

```
1 \langle *ejemplo \rangle
2 \documentclass{elzcards}
3 \usepackage[landscape,letterpaper,vmargin={0.25in,0.25in},hmargin={0.25in,0.25in}]{geometry}
4 \newcommand{\mycenter}[1]{\vfill\mbox{\begin{center}\LARGE#1\end{center}\mbox{\vfill}}
5 \begin{document}
6 \MakeBC{\mycenter{Business card \\\ only front side \\\ default options}}\%
7 \MakeBC*{\mycenter{Business card \\\ front side \\\ with dots}}\%
8 [\mycenter{Business card \\\ back side}]
```

³None of these crop marks will be added to the back side of a twosided document.

⁴Exactly the same as `\MakeBC` except there are no mandatory arguments.

```

9 \MakeBC**{\mycenter{Business card \\ front side \\ with lines}}%
10 [\mycenter{Business card \\ back side}]
11 \MakeBC*[2in][3.5in][1mm]{\mycenter{Business card \\ vertical \\ front side \\ with 1mm dots}}%
12 [\mycenter{Business card \\ vertical \\ back side}]
13 \Card{\mycenter{Index/flash card \\ front card 1}}[\mycenter{Index/flash card \\ back card 1}]
14 \Card{\mycenter{Index/flash card \\ front card 2}}[\mycenter{Index/flash card \\ back card 2}]
15 \Card{\mycenter{Index/flash card \\ front card 3}}[\mycenter{Index/flash card \\ back card 3}]
16 \Card{\mycenter{Index/flash card \\ front card 4}}[\mycenter{Index/flash card \\ back card 4}]
17 \Card{\mycenter{Index/flash card \\ front card 5}}[\mycenter{Index/flash card \\ back card 5}]
18 \Card{\mycenter{Index/flash card \\ front card 6}}[\mycenter{Index/flash card \\ back card 6}]
19 \Card{\mycenter{Index/flash card \\ front card 7}}[\mycenter{Index/flash card \\ back card 7}]
20 \MakeIC
21 \Card{\mycenter{Index/flash card \\ 3x3in \\ with 2mm dots \\ card 1}}
22 \Card{\mycenter{Index/flash card \\ 3x3in \\ with 2mm dots \\ card 2}}
23 \Card{\mycenter{Index/flash card \\ 3x3in \\ with 2mm dots \\ card 3}}
24 \Card{\mycenter{Index/flash card \\ 3x3in \\ with 2mm dots \\ card 4}}
25 \Card{\mycenter{Index/flash card \\ 3x3in \\ with 2mm dots \\ card 5}}
26 \Card{\mycenter{Index/flash card \\ 3x3in \\ with 2mm dots \\ card 6}}
27 \MakeFC*[3in][3in][2mm]
28 \end{document}
29 \ejeemplo

```

6 Implementation

```

30 (*class)
31 \RequirePackage{calc}
32 \RequirePackage{xparse}
33
34 \DeclareOption*{\PassOptionsToClass{\CurrentOption}{article}}
35 \ProcessOptions\relax
36 \LoadClass{article}
37
38 \newif\if@elzc@puntos
39 \newif\if@elzc@lineas
40 \newif\if@elzc@guias
41 \newif\if@elzc@fichaconreverso
42 \newif\if@elzc@reversoficha
43
44 \newlength{\elzc@TarjXdim}
45 \newlength{\elzc@TarjYdim}
46 \newlength{\elzc@TempLen}
47
48 \newcounter{elzc@TarjXdim}
49 \newcounter{elzc@TarjYdim}
50 \newcounter{elzc@PapelX}
51 \newcounter{elzc@PapelY}
52 \newcounter{elzc@NumX}
53 \newcounter{elzc@NumY}
54 \newcounter{elzc@ContX}
55 \newcounter{elzc@ContY}
56 \newcounter{elzc@PosX}
57 \newcounter{elzc@PosY}
58 \newcounter{elzc@RestoX}
59 \newcounter{elzc@XInicial}
60 \newcounter{elzc@Punto}
61 \newcounter{elzc@Arista}
62 \newcounter{elzc@Fichas}
63 \newcounter{elzc@TempFichaActual}

```

```

64 \newcounter{elzc@TempFichaActualIII}
65
66 \setlength{\parindent}{0pt}
67 \setlength{\unitlength}{1sp}
68 \pagestyle{empty}
69
70 \newlength{\elzc@DefTPXdim}
71 \newlength{\elzc@DefTPYdim}
72 \newlength{\elzc@DefFichaXdim}
73 \newlength{\elzc@DefFichaYdim}
74 \newlength{\elzc@DefLinea}
75 \newcounter{elzc@DefArista}
76 \newcounter{elzc@DefPunto}
77
78 \setlength{\elzc@DefTPXdim}{3.5in}
79 \setlength{\elzc@DefTPYdim}{2in}
80 \setlength{\elzc@DefFichaXdim}{5in}
81 \setlength{\elzc@DefFichaYdim}{3in}
82 \setlength{\elzc@DefLinea}{0.1mm}
83 \setcounter{elzc@DefArista}{186468}
84 \setcounter{elzc@DefPunto}{65536}
85
86 \newcommand{\elzc@Cuadricula}[1]{%
87 \setcounter{elzc@TarjXdim}{\elzc@TarjXdim}%
88 \setcounter{elzc@TarjYdim}{\elzc@TarjYdim}%
89 \setcounter{elzc@PapelX}{\textwidth}%
90 \setcounter{elzc@PapelY}{\textheight}%
91 \setcounter{elzc@NumX}{\value{elzc@PapelX} / \value{elzc@TarjXdim}}%
92 \setcounter{elzc@NumY}{\value{elzc@PapelY} / \value{elzc@TarjYdim}}%
93 \setcounter{elzc@ContX}{-1}%
94 \setcounter{elzc@ContY}{-1}%
95 \setcounter{elzc@RestoX}{- \value{elzc@PapelX} + \value{elzc@NumX} * \value{elzc@TarjXdim}}%
96 \begin{picture}(\value{elzc@PapelX},\value{elzc@PapelY})(\value{elzc@XInicial},0)%
97 \loop \ifnum\value{elzc@ContY} < \value{elzc@NumY} \advance\value{elzc@ContY} by 1{%
98 \loop \ifnum\value{elzc@ContX} < \value{elzc@NumX} \advance\value{elzc@ContX} by 1{%
99 \if@elzc@reversoficha
100 \setcounter{elzc@PosX}{\value{elzc@NumX} * \value{elzc@TarjXdim} - %
101 \value{elzc@ContX} * \value{elzc@TarjXdim} - \value{elzc@TarjXdim}}%
102 \else
103 \setcounter{elzc@PosX}{\value{elzc@ContX} * \value{elzc@TarjXdim}}%
104 \fi
105 \setcounter{elzc@PosY}{\value{elzc@ContY} * \value{elzc@TarjYdim}}%
106 \ifnum \value{elzc@ContX} < \value{elzc@NumX}%
107 \ifnum \value{elzc@ContY} < \value{elzc@NumY}%
108 \put(\value{elzc@PosX},\value{elzc@PosY}){%
109 \makebox(\value{elzc@TarjXdim}, \value{elzc@TarjYdim}){%
110 \ifnum\value{elzc@TempFichaActual} < \value{elzc@Fichas}%
111 \addtocounter{elzc@TempFichaActual}{1}%
112 \addtocounter{elzc@TempFichaActualIII}{1}%
113 \parbox[t][\elzc@TarjYdim]{\elzc@TarjXdim}{%
114 \if@elzc@reversoficha
115 \expandafter\csname FichaReverso\romannumeral\value{elzc@TempFichaActual}\endcsname
116 \else
117 \expandafter\csname Ficha\romannumeral\value{elzc@TempFichaActual}\endcsname
118 \fi}%
119 \else
120 \parbox[t][\elzc@TarjYdim]{\elzc@TarjXdim}{\#1}%
121 \fi}%
122 \fi

```

```

123 \fi
124 \if@elzc@guias
125 \ifnum \value{elzc@ContX} = 0
126 \put(\value{elzc@PosX},\value{elzc@PosY}){\line(-1,0){\value{elzc@Arista}}}%
127 \else
128 \ifnum \value{elzc@ContX} = \value{elzc@NumX}%
129 \put(\value{elzc@PosX},\value{elzc@PosY}){\line(2,0){\value{elzc@Arista}}}%
130 \else
131 \put(\value{elzc@PosX},\value{elzc@PosY}){\line(-1,0){\value{elzc@Arista}}}%
132 \put(\value{elzc@PosX},\value{elzc@PosY}){\line(2,0){\value{elzc@Arista}}}%
133 \fi
134 \fi
135 \ifnum \value{elzc@ContY} = 0
136 \put(\value{elzc@PosX},\value{elzc@PosY}){\line(0,-1){\value{elzc@Arista}}}%
137 \else
138 \ifnum \value{elzc@ContY} = \value{elzc@NumY}%
139 \put(\value{elzc@PosX},\value{elzc@PosY}){\line(0,0){\value{elzc@Arista}}}%
140 \else
141 \put(\value{elzc@PosX},\value{elzc@PosY}){\line(0,0){\value{elzc@Arista}}}%
142 \put(\value{elzc@PosX},\value{elzc@PosY}){\line(0,-1){\value{elzc@Arista}}}%
143 \fi
144 \fi
145 \fi
146 \if@elzc@lineas
147 \multiput(\value{elzc@PosX}, 0)(0, \value{elzc@TarjYdim})%
148 {\value{elzc@NumY}}{\line(0,1){\value{elzc@TarjYdim}}}%
149 \multiput(0, \value{elzc@PosY})(\value{elzc@TarjXdim}, 0)%
150 {\value{elzc@NumX}}{\line(1,0){\value{elzc@TarjXdim}}}%
151 \fi
152 \if@elzc@puntos
153 \put(\value{elzc@PosX}, \value{elzc@PosY}){\circle*{\value{elzc@Punto}}}
154 \fi}%
155 \repeat}%
156 \repeat
157 \end{picture}%
158 \@elzc@lineasfalse\@elzc@puntosfalse\@elzc@guiasfalse\@elzc@reversofichafalse}
159
160 \NewDocumentCommand{\elzc@Tarjetas}{s s o o o m o}{%
161 \IfBooleanTF{#2}{\@elzc@lineastrue}{\IfBooleanTF{#1}{\@elzc@puntostrue}{\@elzc@guiastrue}}%
162 \setlength{\elzc@TarjXdim}{#3}%
163 \setlength{\elzc@TarjYdim}{#4}%
164 \IfValueTF{#5}{%
165 \IfBooleanTF{#2}
166 {\linethickness{#5}}
167 {\IfBooleanTF{#1}
168 {\setlength{\elzc@TempLen}{#5}\setcounter{elzc@Punto}{\elzc@TempLen}
169 {\setlength{\elzc@TempLen}{#5}\setcounter{elzc@Arista}{\elzc@TempLen}%
170 \linethickness{\elzc@DefLinea}}}%
171 }{%
172 \IfBooleanTF{#2}
173 {\linethickness{\elzc@DefLinea}}
174 {\IfBooleanTF{#1}
175 {\setcounter{elzc@Punto}{\value{elzc@DefPunto}}}
176 {\setcounter{elzc@Arista}{\value{elzc@DefArista}}\linethickness{\elzc@DefLinea}}}%
177 }%
178 }%
179 \elzc@Cuadricula{\setlength{\unitlength}{1mm}#6}%
180 \if@elzc@fichaconreverso
181 \addtocounter{elzc@TempFichaActual}{-\value{elzc@TempFichaActualII}}%

```

```

182 \newpage
183 \setcounter{elzc@XInicial}{\value{elzc@RestoX}}%
184 \@elzc@reversofichatrue
185 \elzc@Cuadricula{\setlength{\unitlength}{1mm}}%
186 \else
187 \IfValueT{#7}{%
188 \immediate\write\@auxout{\string\@twosidettrue\string\@mparswitchtrue}%
189 \newpage
190 \setcounter{elzc@XInicial}{\value{elzc@RestoX}}%
191 \elzc@Cuadricula{\setlength{\unitlength}{1mm}#7}}%
192 \fi
193 \cleardoublepage
194 \setcounter{elzc@TempFichaActualII}{0}%
195 \setcounter{elzc@XInicial}{0}%
196 \ifnum\value{elzc@TempFichaActual} < \value{elzc@Fichas}%
197 \IfBooleanTF{#2}{\MakeIC*{#3}[#4][#5]}{\IfBooleanTF{#1}{%
198 \MakeIC*{#3}[#4][#5]}{\MakeIC{#3}[#4][#5]}}%
199 \fi
200 \setcounter{elzc@Fichas}{0}%
201 \setcounter{elzc@TempFichaActual}{0}%
202 \@elzc@fichaconreversofalse}
203
204 \NewDocumentCommand{\MakeBC}{s s O{\elzc@DefTPXdim} O{\elzc@DefTPYdim} o m o}{%
205 \IfBooleanTF{#2}
206 {\elzc@Tarjetas*{#3}[#4][#5]{#6}[#7]}
207 {\IfBooleanTF{#1}
208 {\elzc@Tarjetas*{#3}[#4][#5]{#6}[#7]}
209 {\elzc@Tarjetas{#3}[#4][#5]{#6}[#7]}}}
210
211 \NewDocumentCommand{\MakeIC}{s s O{\elzc@DefFichaXdim} O{\elzc@DefFichaYdim} o}{%
212 \IfBooleanTF{#2}
213 {\elzc@Tarjetas*{#3}[#4][#5]{}}
214 {\IfBooleanTF{#1}
215 {\elzc@Tarjetas*{#3}[#4][#5]{}}
216 {\elzc@Tarjetas{#3}[#4][#5]{}}}
217
218 \let\MakeFC\MakeIC
219
220 \NewDocumentCommand{\Card}{m o}{%
221 \addtocounter{elzc@Fichas}{1}%
222 \expandafter\def\csname Ficha\romannumeral\value{elzc@Fichas}\endcsname{#1}%
223 \IfValueTF{#2}{%
224 \@elzc@fichaconreversotrue
225 \expandafter\def\csname FichaReverso\romannumeral\value{elzc@Fichas}\endcsname{#2}%
226 \immediate\write\@auxout{\string\@twosidettrue\string\@mparswitchtrue}}
227 {\expandafter\def\csname FichaReverso\romannumeral\value{elzc@Fichas}\endcsname{}}}
228
229 \IfFileExists{\jobname.aux}{\input\jobname.aux}
230
231 \endclass

```

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Numbers written in *italic* refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; numbers in *roman* refer to the code lines where the entry is used.

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