FlashCards[*]

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16 March 2000

Contents

1 Introduction

The FLASHCARDS class provides for the typesetting of flash cards in LaTeX 2_ε. By flash card, I mean a two sided card which has a prompt or a question on one side and the response or the answer on the flip (back) side. Flash cards come in many sizes depending on the nature of the information they contain. In particular, I like using both $3 \times 5''$ (index cards) and $2 \times 3\frac{1}{2}''$ (business cards) which are available in perforated sheets suitable for printing or copying onto.

In order to use this package effectively, you will need to accurately configure `dvips` (or similar) for your printer. LaTeX provides a helpful `testpage.tex` for this purpose.

2 Using FlashCards

FLASHCARDS utilizes the standard LaTeX 2_ε class interface. Your document should be begin with:

$$\texttt{\textbackslash documentclass[}\textit{options}\texttt{]\{flashcards\}}$$

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[*]Contains version 1.0.0 last revised 16 March 2000

2.1 Options

avery5371   All documents should specify the paper type. I have provided the two that I use, business cards (Avery 5371 as well as Avery 5376, 5377, 5911, 8371, 8376, 8377, 8471 and 8373) and index cards (Avery 5388), but variants are easy to generate. Please refer to Section 4 for the details of creating your own configuration file for a particular type of paper.

avery5388

fronts   If desired, you can typeset just the `fronts` of the cards or just the `backs` of the cards. Useful if your printer does not print two sides without your help, although `dvips` offers the same functionality with odd/even switches (`-A` or `-B`, respectively).

backs

grid   Useful for getting everything lined up as well as for examining the cards as you create them, the `grid` option will draw lines where the perforation will be.

frame   The `frame` option will frame the contents of the card with a thin line. There will be a uniform margin (see below for how to set it) between the edge of the card and the frame.

dvips   If you are using landscape oriented paper, you may want to use the `dvips` option to send the right specials to `dvips` so that it knows about the orientation without have to tell it from the command line. Warning: this option displaces my margins, if the same happens to you, then you will want to avoid it or create a special configuration for this case. There must be some alternative configuration file somewhere that gets used when this option is specified for the `geometry` package.

2.2 Environment

flashcard   The FLASHCARDS class provideds the environment `flashcard` for specifying the contents of each flash card. The `flashcard` environment has one required argument, which becomes the contents of the front side of the card (the question or prompt). The body of the environment then becomes the contents of the back side of the card. For example,

```
\begin{flashcard}{Dense Subset}
  A subset $S$ of a normed space $B$ is called \emph{dense}
  in $B$ if {\rm cl} $S$ = $B$.
\end{flashcard}
```

will produce the front-back pair:

Dense Subset	A subset S of a normed space B is called *dense* in B if cl $S = B$.
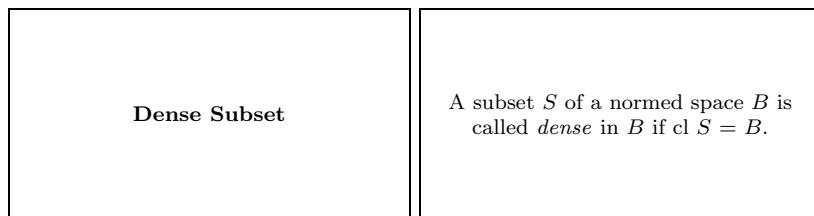
This is not the end of the story, however, there are several styles to choose from and an optional argument to the `flashcard` environment. These will be descibed next.

2.3 Styles

By default, FLASHCARDS uses the `plain` style for both the front and back of the flash card. The `plain` style centers the contents horizontally and vertically. The front contents are also set in in large bold face, but this can be changed while setting the style as described below.

\cardfrontstyle   The style of the front of the card can be conveniently selected with the `\cardfrontstyle{`*style*`}` command, where *style* can be one of `empty`, `plain`, or `headings`. The `plain` style has already been described. The `empty` style does not center the contents horizontally nor vertically, allowing for more

\cardfrontfoot   generic usage. The `headings` style allows you to set a running footer with the `\cardfrontfoot{`*text*`}` command, as well as set a header for each card with an optional argument to the `flashcard` environment. For example,

```
\cardfrontstyle{headings}
\cardfrontfoot{Functional Analysis}
\begin{flashcard}[Definition]{Dense Subset}
  A subset $S$ of a normed space $B$ is called \emph{dense}
  in $B$ if {\rm cl} $S$ = $B$.
\end{flashcard}
```

will produce the front-back pair:

DEFINITION **Dense Subset** FUNCTIONAL ANALYSIS	A subset S of a normed space B is called *dense* in B if cl $S = B$.
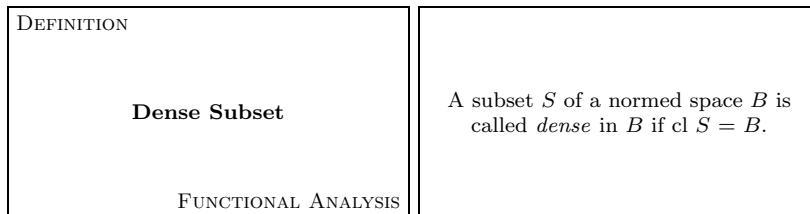
You can also change the default formatting of the contents of the front of the card by including the new formatting commands as an optional argument to `\cardfrontstyle`. For example, to set the overall style to be `plain` (thus centering the contents of the front of the card), as well as set the contents in a large slanted face, you could issue the command:

<div align="center">

`\cardfrontstyle[\LARGE\slshape]{plain}`

</div>

\cardbackstyle   The style of the back of the card can be conveniently selected with the `\cardbackstyle{`*style*`}` command, where *style* can either be `empty` or `plain`. The `plain` style has already been described. The `empty` style does not center the contents horizontally nor vertically, allowing for more generic usage.

The default formatting can also be changed through an optional argument in the same manner as for the front of the card.

2.3.1 Headings Styles

\cardfrontheadstyle
\cardfrontfootstyle   The header and footer provided for the front of the card by the `headings` style can be customized through two style commands. The available styles for the header and footer are `left`, `center` and `right`, which will place the contents of the header or footer as advertized. By default the header will be `left` justified and the footer will be `right` justified.

Here as well, you can provide an optional argument to specify the formatting of the header and footer, for example to have the footer centered and set in a small italic face:

$$\texttt{\textbackslash cardfrontfootstyle[\textbackslash small\textbackslash itshape]\{center\}}$$

2.4 Lengths

FLASHCARDS has one length (in addition to the those discussed in paper configuration below) which allows you to set the size of the uniform margin around the contents of both the front and back of the card. For example, to set that uniform margin at $1/4''$, you can do the following:

$$\texttt{\textbackslash setlength\{\textbackslash cardmargin\}\{0.25in\}}$$

3 Sample Document

```
1 ⟨∗sample⟩
2 \documentclass[avery5388,grid,frame]{flashcards}
3
4 \cardfrontstyle[\large\slshape]{headings}
5 \cardbackstyle{empty}
6
7 \begin{document}
8
9 \cardfrontfoot{Functional Analysis}
10
11
12 \begin{flashcard}[Definition]{Norm on a Linear Space \\ Normed Space}
13
14   A real-valued function $||x||$ defined on a linear space $X$, where
15   $x \in X$, is said to be a \emph{norm on} $X$ if
16
17   \smallskip
18
19   \begin{description}
20     \item [Positivity]            $||x|| \geq 0$,
21     \item [Triangle Inequality]  $||x+y|| \leq ||x|| + ||y||$,
22     \item [Homogeneity]          $||\alpha x|| = |\alpha| \: ||x||$,
23                                  $\alpha$ an arbitrary scalar,
24     \item [Positive Definiteness] $||x|| = 0$ if and only if $x=0$,
25   \end{description}
26
27   \smallskip
28
29   where $x$ and $y$ are arbitrary points in $X$.
30
31   \medskip
32
33   A linear/vector space with a norm is called a \emph{normed space}.
34 \end{flashcard}
35
36
```

4

```
37 \begin{flashcard}[Definition]{Inner Product}
38
39   Let $X$ be a complex linear space. An \emph{inner product} on $X$ is
40   a mapping that associates to each pair of vectors $x$, $y$ a scalar,
41   denoted $(x,y)$, that satisfies the following properties:
42
43   \medskip
44
45   \begin{description}
46     \item [Additivity]              $(x+y,z) = (x,z) + (y,z)$,
47     \item [Homogeneity]            $(\alpha \: x, y) = \alpha (x,y)$,
48     \item [Symmetry]               $(x,y) = \overline{(y,x)}$,
49     \item [Positive Definiteness] $(x,x) > 0$, when $x\neq0$.
50   \end{description}
51 \end{flashcard}
52
53
54 \begin{flashcard}[Definition]{Linear Transformation/Operator}
55
56   A transformation $L$ of (operator on) a linear space $X$ into a linear
57   space $Y$, where $X$ and $Y$ have the same scalar field, is said to be
58   a \emph{linear transformation (operator)} if
59
60   \medskip
61
62   \begin{enumerate}
63     \item $L(\alpha x) = \alpha L(x), \forall x\in X$ and $\forall$
64           scalars $\alpha$, and
65     \item $L(x_1 + x_2) = L(x_1) + L(x_2)$ for all $x_1,x_2 \in X$.
66   \end{enumerate}
67
68 \end{flashcard}
69
70
71 \end{document}
72 ⟨/sample⟩
```

4   Paper Configuration

A separate configuration file specifies the details of each paper type. You should be able to create a new configuration file from the information the paper manufacturer provides with the product. Again, in order for this to work properly, you must accurately configure your printer. I recommend using `testpage.tex` and reading the `dvips` (or similar) documentation (`info dvips` on a typical LINUX installation). Also, on my setup I have experienced variation between portrait and landscape oriented papers.

There are seven parameters which must be set. The names should be somewhat self explanatory. I recommend making a copy of one of the existing configuration files and modifying the copy as necessary.

For example, a 5×2 business card stock that I have been using has a $0.75''$ left and right margins and a $0.50''$ top margin which offset an array of $2''$ high and $3.5''$ wide business cards arranged in 5 vertical rows and 2 horizontal columns. I

use the following configuration file:

```
\newcommand{\cardpaper}{letterpaper}
\newcommand{\cardpapermode}{portrait}
\newcommand{\cardrows}{5}
\newcommand{\cardcolumns}{2}
\setlength{\cardheight}{2.0in}
\setlength{\cardwidth}{3.5in}
\setlength{\topoffset}{0.50in}
\setlength{\oddoffset}{0.75in}
\setlength{\evenoffset}{0.75in}
```

All four commands must be defined and all five lengths must be specified. If the array of cards is not centered left-to-right on the paper, you should set \oddoffset to the left margin of the front and \evenoffset to the right margin of the front.

5 Class Source

The LaTeX 2_ε source code follows. The flash cards are built up in an array of save boxes which are flushed at the end of each page and at the end of the document.

Declare Booleans and Set Defaults

73 ⟨∗flashcards⟩
74 \newboolean{flashcards@dvips}\setboolean{flashcards@dvips}{false}
75 \newboolean{flashcards@grid}\setboolean{flashcards@grid}{false}
76 \newboolean{flashcards@frame}\setboolean{flashcards@frame}{false}
77 \newboolean{flashcards@fronts}\setboolean{flashcards@fronts}{true}
78 \newboolean{flashcards@backs}\setboolean{flashcards@backs}{true}

Declare Lengths

79 \newlength{\cardheight}
80 \newlength{\cardwidth}
81 \newlength{\topoffset}
82 \newlength{\oddoffset}
83 \newlength{\evenoffset}
84 \newlength{\oddevenshift}
85 %
86 \newlength{\cardmargin}
87 \newlength{\cardinnerheight}
88 \newlength{\cardinnerwidth}

Declare and Process Options

89 \DeclareOption{dvips}{
90   \setboolean{flashcards@dvips}{true}}
91 \DeclareOption{grid}{
92   \setboolean{flashcards@grid}{true}}
93 \DeclareOption{frame}{
94   \setboolean{flashcards@frame}{true}}
95 \DeclareOption{fronts}{
96   \setboolean{flashcards@backs}{false}}
97 \DeclareOption{backs}{

```
98   \setboolean{flashcards@fronts}{false}}
99  \DeclareOption*{
100   \InputIfFileExists{\CurrentOption.cfg}{}{
101     \typeout{Coudln't find \CurrentOption.cfg, using defualt.}
102     \OptionNotUsed}}
103 \ProcessOptions
104 \pagestyle{empty}
```

Setup Paper

```
105 \setlength{\oddevenshift}{\oddoffset}
106 \addtolength{\oddevenshift}{-\evenoffset}
107 \addtolength{\oddoffset}{-\oddevenshift}
108 \addtolength{\evenoffset}{\oddevenshift}
109 \geometry{\cardpapermode,
110          \cardpaper,
111          top=\topoffset,
112          left=\oddoffset,
113          right=\evenoffset,
114          twosideshift=\oddevenshift,
115          bottom=0.0in,
116          noheadfoot}
117 \ifthenelse{\boolean{flashcards@dvips}}{\geometry{dvips}}{}
```

Create Row/Column Counters

```
118 \newcounter{flashcards@row}
119 \newcounter{flashcards@col}[flashcards@row]
```

Create Frame and Grid Commands

```
120 \ifthenelse{\boolean{flashcards@grid}}
121 {\newcommand{\flashcards@gridbox}[1]{%
122             \setlength{\fboxsep}{0in}\fbox{#1}}
123  \addtolength{\cardwidth}{-2\fboxrule}
124  \addtolength{\cardheight}{-2\fboxrule}}
125 {\newcommand{\flashcards@gridbox}[1]{#1}}
126 %
127 \ifthenelse{\boolean{flashcards@frame}}
128 {\newcommand{\flashcards@beginframebox}{%
129    \begin{tabular}{|@{\hspace*{\fboxsep}}c@{\hspace*{\fboxsep}}|}%
130      \hline}%
131  \newcommand{\flashcards@endframebox}{\\ \hline
132    \end{tabular}}}
133 {\newcommand{\flashcards@beginframebox}{}%
134  \newcommand{\flashcards@endframebox}{}}
```

Create Save Boxes

```
135 \whiledo{\value{flashcards@row} < \cardrows}{%
136  \stepcounter{flashcards@row}%
137  \whiledo{\value{flashcards@col} < \cardcolumns}{%
138    \stepcounter{flashcards@col}%
139    \expandafter\newsavebox
140      \csname flashcardFrontR\roman{flashcards@row}%
141            C\roman{flashcards@col}\endcsname%
142      \global\expandafter\setbox%
```

```
143        \csname flashcardFrontR\roman{flashcards@row}%
144               C\roman{flashcards@col}\endcsname%
145        \hbox{\flashcards@gridbox{%
146          \parbox[t][\cardheight]
147                 [c]{\cardwidth}%
148                 {\rule{\cardwidth}{0pt}%
149                  \rule{0pt}{\cardheight}}}}%
150    \expandafter\newsavebox
151      \csname flashcardBackR\roman{flashcards@row}%
152               C\roman{flashcards@col}\endcsname%
153      \global\expandafter\setbox%
154        \csname flashcardBackR\roman{flashcards@row}%
155               C\roman{flashcards@col}\endcsname%
156        \hbox{\flashcards@gridbox{%
157          \parbox[t][\cardheight]
158                 [c]{\cardwidth}%
159                 {\rule{\cardwidth}{0pt}%
160                  \rule{0pt}{\cardheight}}}}%
161    }
162 }
```

Initialize Row/Column Counters

```
163 \setcounter{flashcards@row}{1}
164 \setcounter{flashcards@col}{1}
```

Internal Formatting Commands

```
165 \newcommand{\flashcards@frontfoot}{}
166 %
167 \newcommand{\flashcards@ps@front@empty}[3]{\@gobble{#1}\@gobble{#2}%
168   \flashcards@format@front#3}
169 \newcommand{\flashcards@ps@front@plain}[3]{\@gobble{#1}\@gobble{#2}%
170   \vspace*{\fill}\par%
171   \begin{center}\flashcards@format@front#3\end{center}%
172   \par\vspace*{\fill}}
173 \newcommand{\flashcards@ps@front@headings}[3]{%
174   {\flashcards@ps@front@head{\flashcards@format@front@head#2}}\par%
175   \vspace*{\fill}\begin{center}\flashcards@format@front#3\end{center}%
176   \vspace*{\fill}%
177   {\flashcards@ps@front@foot{\flashcards@format@front@foot#1}}\par%
178   \vspace*{\fboxsep}}%
179 }
180 %
181 \newcommand{\flashcards@ps@back@begin@empty}{\flashcards@format@back}
182 \newcommand{\flashcards@ps@back@end@emtpy}{}
183 \newcommand{\flashcards@ps@back@begin@plain}
184   {\vspace*{\fill}\center\flashcards@format@back}
185 \newcommand{\flashcards@ps@back@end@plain}{\vspace*{\fill}}
186 %
187 \newcommand{\flashcards@ps@front@head@left}[1]{#1}
188 \newcommand{\flashcards@ps@front@head@right}[1]{\hspace*{\fill}#1}
189 \newcommand{\flashcards@ps@front@head@center}[1]{\centerline{#1}}
190 %
191 \newcommand{\flashcards@ps@front@foot@left}[1]{#1}
192 \newcommand{\flashcards@ps@front@foot@right}[1]{\hspace*{\fill}#1}
```

```
193 \newcommand{\flashcards@ps@front@foot@center}[1]{\centerline{#1}}
194 %
195 \newcommand{\flashcards@ps@front}
196   {\flashcards@ps@front@plain}
197 \newcommand{\flashcards@ps@front@head}
198   {\flashcards@ps@front@head@left}
199 \newcommand{\flashcards@ps@front@foot}
200   {\flashcards@ps@front@foot@right}
201 \newcommand{\flashcards@ps@back@begin}
202   {\flashcards@ps@back@begin@plain}
203 \newcommand{\flashcards@ps@back@end}
204   {\flashcards@ps@back@end@plain}
205 %
206 \newlength{\flashcards@savelineskip}
207 \newcommand{\flashcards@lineskip@zero}
208   {\setlength{\flashcards@savelineskip}{\lineskip}%
209    \setlength{\lineskip}{0pt}}
210 \newcommand{\flashcards@lineskip@restore}
211   {\setlength{\lineskip}{\flashcards@savelineskip}}
212 %
213 \newcommand{\flashcards@format@front}
214   {\large\bfseries}
215 \newcommand{\flashcards@format@front@head}
216   {\normalsize\scshape}
217 \newcommand{\flashcards@format@front@foot}
218   {\normalsize\scshape}
219 \newcommand{\flashcards@format@back}{}
220 %
221 \setlength{\cardmargin}{0.035\cardwidth}
```

Internal Flushing Commands

```
222 \newcommand{\flashcards@flush}
223   {\flashcards@flushfronts\flashcards@flushbacks}
224 %
225 \ifthenelse{\boolean{flashcards@fronts}}{%
226   \newcommand{\flashcards@flushfronts}{%
227     \flashcards@lineskip@zero%
228     \noindent\raggedright\par%
229     \setcounter{flashcards@row}{0}
230     \whiledo{\value{flashcards@row} < \cardrows}{%
231       \stepcounter{flashcards@row}%
232       \whiledo{\value{flashcards@col} < \cardcolumns}{%
233         \stepcounter{flashcards@col}%
234         \flashcards@gridbox{\usebox{%
235           \csname flashcardFrontR\roman{flashcards@row}%
236                 C\roman{flashcards@col}\endcsname}}%
237         \global\expandafter\setbox%
238           \csname flashcardFrontR\roman{flashcards@row}%
239                 C\roman{flashcards@col}\endcsname%
240         \hbox{\flashcards@gridbox{%
241           \parbox[t][\cardheight]
242                 [c]{\cardwidth}%
243                 {\rule{\cardwidth}{0pt}%
244                  \rule{0pt}{\cardheight}}}}%
```

9

```
245         }
246         \noindent\raggedright\par%
247       }
248       \clearpage%
249       \flashcards@lineskip@restore%
250       \setcounter{flashcards@row}{1}%
251       \setcounter{flashcards@col}{1}%
252     }
253 }{%
254   \newcommand{\flashcards@flushfronts}{}%
255 }
256 %
257 \ifthenelse{\boolean{flashcards@backs}}{%
258   \newcommand{\flashcards@flushbacks}{%
259       \flashcards@lineskip@zero%
260       \noindent\raggedright\par%
261       \setcounter{flashcards@row}{0}
262       \whiledo{\value{flashcards@row} < \cardrows}{%
263         \stepcounter{flashcards@row}%
264         \setcounter{flashcards@col}{\cardcolumns}
265         \whiledo{\value{flashcards@col} > 0}{%
266           \flashcards@gridbox{\usebox{%
267             \csname flashcardBackR\roman{flashcards@row}%
268                   C\roman{flashcards@col}\endcsname}}%
269           \global\expandafter\setbox
270             \csname flashcardBackR\roman{flashcards@row}%
271                   C\roman{flashcards@col}\endcsname%
272           \hbox{\flashcards@gridbox{%
273             \parbox[t][\cardheight]
274                   [c]{\cardwidth}%
275                   {\rule{\cardwidth}{0pt}%
276                    \rule{0pt}{\cardheight}}}}%
277           \addtocounter{flashcards@col}{-1}%
278         }
279         \noindent\raggedright\par%
280       }
281       \clearpage%
282       \flashcards@lineskip@restore%
283       \setcounter{flashcards@row}{1}%
284       \setcounter{flashcards@col}{1}%
285   }
286 }{%
287   \newcommand{\flashcards@flushbacks}{}%
288 }
289 %
290 \AtEndDocument{%
291   \ifthenelse{\value{flashcards@row} = 1}{%
292     \ifthenelse{\value{flashcards@col} = 1}{}{%
293 \flashcards@flush}}{\flashcards@flush}%
294 }
```

User Commands and Environments

```
295 %
296 \newcommand{\cardfrontstyle}[2][]
```

```
297    {\renewcommand{\flashcards@ps@front}
298             {\csname flashcards@ps@front@#2\endcsname}
299    \ifthenelse{\equal{#1}{}}{}{%
300      \renewcommand{\flashcards@format@front}{#1}}}
301 %
302 \newcommand{\cardbackstyle}[2][]
303    {\renewcommand{\flashcards@ps@back@begin}
304             {\csname flashcards@ps@back@begin@#2\endcsname}
305    \renewcommand{\flashcards@ps@back@end}
306             {\csname flashcards@ps@back@end@#2\endcsname}
307    \ifthenelse{\equal{#1}{}}{}{%
308      \renewcommand{\flashcards@format@back}{#1}}}
309 %
310 \newcommand{\cardfrontheadstyle}[2][]
311    {\renewcommand{\flashcards@ps@front@head}
312             {\csname flashcards@ps@front@head@#2\endcsname}
313    \ifthenelse{\equal{#1}{}}{}{%
314      \renewcommand{\flashcards@format@front@head}{#1}}}
315 %
316 \newcommand{\cardfrontfootstyle}[2][]
317    {\renewcommand{\flashcards@ps@front@foot}
318             {\csname flashcards@ps@front@foot@#2\endcsname}
319    \ifthenelse{\equal{#1}{}}{}{%
320      \renewcommand{\flashcards@format@front@foot}{#1}}}
321 %
322 \newcommand{\cardfrontfoot}[1]
323    {\renewcommand{\flashcards@frontfoot}{#1}}
324 %
325 \newenvironment{flashcard}[2][]{%
326 \setlength{\cardinnerwidth}{\cardwidth}%
327 \addtolength{\cardinnerwidth}{-2\cardmargin}%
328 \setlength{\cardinnerheight}{\cardheight}%
329 \addtolength{\cardinnerheight}{-2\cardmargin}%
330 \ifthenelse{\boolean{flashcards@fronts}}{%
331    \global\expandafter\setbox%
332      \csname flashcardFrontR\roman{flashcards@row}%
333             C\roman{flashcards@col}\endcsname%
334      \hbox{\begingroup\aftergroup}%
335        \begin{minipage}[t][\cardheight]
336                    [c]{\cardwidth}%
337          \begin{center}%
338            \flashcards@beginframebox%
339              \begin{minipage}[t][\cardinnerheight]
340                        [t]{\cardinnerwidth}%
341                \flashcards@ps@front{\flashcards@frontfoot}{#1}{#2}%
342              \end{minipage}%
343            \flashcards@endframebox%
344          \end{center}%
345        \end{minipage}%
346      \endgroup%
347 }{\@gobble{#1}}%
348 \global\expandafter\setbox%
349    \csname flashcardBackR\roman{flashcards@row}%
350             C\roman{flashcards@col}\endcsname%
```

```
351    \hbox{\begingroup\aftergroup}%
352      \begin{minipage}[t][\cardheight]
353                     [c]{\cardwidth}%
354        \begin{center}%
355          \flashcards@beginframebox%
356            \begin{minipage}[t][\cardinnerheight]
357                          [t]{\cardinnerwidth}%
358              \flashcards@ps@back@begin%
359 }{%
360              \flashcards@ps@back@end%
361            \end{minipage}%
362          \flashcards@endframebox%
363        \end{center}%
364      \end{minipage}%
365    \endgroup%
366    \stepcounter{flashcards@col}%
367    \ifthenelse{\value{flashcards@col} > \cardcolumns}{%
368      \stepcounter{flashcards@row}%
369      \ifthenelse{\value{flashcards@row} > \cardrows}{%
370        \flashcards@flush%
371      }{%
372        \setcounter{flashcards@col}{1}%
373      }%
374    }{}%
375 }
376 ⟨/flashcards⟩
```

Paper Types

A separate configuration file specifies the details of each paper type.

Avery5371 Business Cards

The 5×2 business card stock I have been using. It goes by many other names as well, depending on color and quantity.

```
377 ⟨∗avery5371⟩
378 \newcommand{\cardpapermode}{portrait}
379 \newcommand{\cardpaper}{letterpaper}
380 \newcommand{\cardrows}{5}
381 \newcommand{\cardcolumns}{2}
382 \setlength{\cardheight}{2.0in}
383 \setlength{\cardwidth}{3.5in}
384 \setlength{\topoffset}{0.50in}
385 \setlength{\oddoffset}{0.75in}
386 \setlength{\evenoffset}{0.75in}
387 ⟨/avery5371⟩
```

Avery5388 Index Cards

Perforated index card stock.

```
388 ⟨∗avery5388⟩
389 \newcommand{\cardpapermode}{portrait}
390 \newcommand{\cardpaper}{letterpaper}
```

```
391 \newcommand{\cardrows}{3}
392 \newcommand{\cardcolumns}{1}
393 \setlength{\cardheight}{3.0in}
394 \setlength{\cardwidth}{5.0in}
395 \setlength{\topoffset}{1.0in}
396 \setlength{\oddoffset}{1.75in}
397 \setlength{\evenoffset}{1.75in}
398 ⟨/avery5388⟩
```