Beamdown

A Markdown to LaTeX Beamer converter

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What is Beamdown?

Beamdown is a tool to make making presentations with LaTeX and Beamer faster and easier. It enables you to write your slides in Markdown, considerably reducing the overhead.

Basically, instead of writing this:

```
\begin{itemize}
    \item A
    \item B
    \begin{itemize}
        \item B1
        \item B2
    \end{itemize}
\end{itemize}
```

you only have to write this:

```
* A
* B
  * B1
  * B2
```

What can it do?

Beamdown's features include:

- Itemization
- Enumeration
- Blocks
- Center environment
- Columns
- (Sub)Sections
- Frame(sub)titles
- Emphasis
- Animations
- Verbatim code
- Inclusion of graphics
- Math environments
- General LaTeX commands

General syntax

How to make a slide

A slide (or "frame" in Beamer parlance) has the following syntax:

Markdown: → Beamdown → Latex:

```
# Examples                                  \section{Examples}
## General                                  \subsection{General}

/---                                        \begin{frame}[fragile]
### General syntax                          \frametitle{General syntax}
#### How to make a slide                    \framesubtitle{How to make a sl

A slide (or \enquote{frame}... A slide (or \enquote{frame}...

---/                                        \end{frame}
```

Itemization is achieved by using asterisks '*', minus '-' or plus signs '+'. The symbol is not important, but the indentation is!

Markdown: → Latex: → PDF:

```
* Item A
* Item B
  + Item B1
      - Item B1a
  + Item B2
```

```
\begin{itemize}
  \item Item A
  \item Item B
  \begin{itemize}
    \item Item B1
    \begin{itemize}
      \item Item B1a
    \end{itemize}
    \item Item B2
  \end{itemize}
\end{itemize}
```

- Item A
- Item B
  - Item B1
    - Item B1a
  - Item B2

Enumeration works the same, but by using numbers. You can also combine it with itemization.

Markdown: → Latex: → PDF:

```
1.  Item A
2.  Item B
    1.  Item B1
        - Item B1a
    2.  Item B2
```

```
\begin{enumerate}
  \item Item A
  \item Item B
  \begin{enumerate}
    \item Item B1
    \begin{itemize}
      \item Item B1a
    \end{itemize}
    \item Item B2
  \end{enumerate}
\end{enumerate}
```

1. Item A
2. Item B
   1. Item B1
      - Item B1a
   2. Item B2

Blocks, alert blocks and example blocks can be created using '{.' and '.}', '{!' and '!}', or '{?' and '?}' respectively.

Markdown: → Latex: → PDF:

```
{.Normal Block
Everything is fine.
.}
```

```
\begin{block}{Normal Block}
Everything is fine.
\end{block}
```

Normal Block

Everything is fine.

```
{!Alert Block
No seriously!
!}
```

```
\begin{alertblock}{A
No seriously!
\end{alertblock}
```

Alert Block

No seriously!

```
{?Example Block
Or is it?
?}
```

```
\begin{exampleblock}
Or is it?
\end{exampleblock}
```

Example Block

Or is it?

A center environment can be created using '\begin{center}' and '\end{center}'.

Markdown:	→	Latex:	→	PDF:
{= Easy as Pi! =}		\begin{center} Easy as Pi! \end{center}		Easy as Pi!

Columns are created with '{|', '|' and '|}'.

Markdown: → Latex: → PDF:

```
{|0.3\textwidth
C1

C1
|0.4\textwidth
C2
|0.2\textwidth
C3
|}
```

```
\begin{columns}
  \begin{column}
      {0.3\textwidth}
    C1
  \end{column}
  \begin{column}
      {0.4\textwidth}
    C2
  \end{column}
  \begin{column}
      {0.2\textwidth}
    C3
\end{column}\end{columns}
```

C1 C2 C3

Markdown emphasis `*foo*` and strong `**bar**` are translated to Latex's `\emph` and `\alert` respectively.

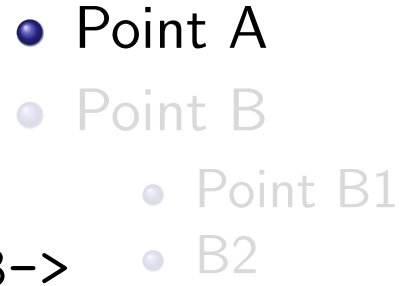
Markdown:	→	Latex:	→	PDF:
`A text with some *really* **important** points.!`		`A text with some \emph{really} \alert{important} points.!`		A text with some *really* important points.!

Animations also work!

Markdown: → Latex: → PDF:

```
* <1-> Point A
* <2-> Point B
  + Point B1
  + **B2**<3->
```

```
\begin{itemize}
  \item <1-> Point A
  \item <2-> Point B
  \begin{itemize}
    \item Point B1
    \item \alert{B2}<3->
  \end{itemize}
\end{itemize}
```



Animations also work!

Markdown: → Latex: → PDF:

```
* <1-> Point A
* <2-> Point B
  + Point B1
  + **B2**<3->
```

```
\begin{itemize}
  \item <1-> Point A
  \item <2-> Point B
  \begin{itemize}
    \item Point B1
    \item \alert{B2}<3->
  \end{itemize}
\end{itemize}
```

- Point A
- Point B
  - Point B1
  - B2

Animations also work!

Markdown: → Latex: → PDF:

```
* <1-> Point A
* <2-> Point B
  + Point B1
  + **B2**<3->
```

```
\begin{itemize}
  \item <1-> Point A
  \item <2-> Point B
  \begin{itemize}
    \item Point B1
    \item \alert{B2}<3->
  \end{itemize}
\end{itemize}
```

- Point A
- Point B
  - Point B1
  - B2

Code can be quoted inline with ’\‘‘ or as a block with 4 spaces indentation.

Markdown: →

```
‘\Code‘ inline.

    Some
    code as
    a
    block
```

Latex: →

```
\verb‘\Code‘ inline.

\begin{verbatim}Some
code as
a
block
\end{verbatim*}

*) \end{verbatim}
cannot be quoted in a
verbatim environment.
Hence the asterisk.
```

PDF:

\Code inline.

```
Some code as
a
block
```

Graphics are easy as well!

Markdown: → Latex: → PDF:

```
[width=0.9\textwidth]
    (rwth_3physik_b.pdf)
```

```
\includegraphics
[width=0.9\textwidth]
{rwth_3physik_b.pdf}
```

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Math environments work straight forward, as long as you use '$' and '$$'.

Markdown:	→	Latex:	→	PDF:
`Easy as $\pi$!`		`Easy as $\pi$!`		Easy as π!
`$$ \exists\ \pi\ \forall\ 1 $$`		`$$ \exists\ \pi\ \forall\ 1 $$`		$\exists\ \pi\ \forall\ 1$

If all else fails, you can still use all Latex commands you can think of. This includes custom commands.

Markdown:	→	Latex:	→	PDF:
`\LaTeX\ rules!`		`\LaTeX\ rules!`		$\mathrm{D}^{\mathrm{E}}_{\mathrm{M}}\mathrm{O}$
`\vspace{-4em}`		`\vspace{-4em}`		LaTeX rules!
`\demo`		`\demo`		

Have fun!