



The Falkor \LaTeX Beamer Style

An example using Markdown content and pandoc

Firstname Lastname

Long institute

Latest versions available on **Github**:

Beamer theme Falkor:

<https://github.com/Falkor/beamerthemeFalkor>

Generic Makefiles:

<https://github.com/Falkor/Makefiles>



Summary

- 1 **Instructions**
- 2 **A section in Markdow level 1**
A subsection in Markdown level 2
- 3 **Markdown Sources of these slides**



Summary

- 1 **Instructions**
- 2 A section in Markdown level 1
A subsection in Markdown level 2
- 3 **Markdown Sources of these slides**



Markdown-based Beamer Workflow

- Install `pandoc`
- Rely on my `LATEX` `Makefile` (or define your own)
- Rely on a main file in `LATEX`
 - ↳ split markdown content in individual Markdown files
 - ↳ these file **SHOULD HAVE** the `.md` extension
 - ↳ my `Makefile` compile all `.md` files into `.md.tex` `LATEX` files using:

```
$> pandoc -from markdown -to beamer -slide-level 3 \  
        -o <filename>.md.tex <filename>.md
```
- Simply include the markdown files using `\input{<filename>.md}`
 - ↳ in practice, `<filename>.md.tex` is considered for inclusion
- **Ex:** the next section was generated by:

```
\input{__content_in__markdown.md} % the .tex extension is  
                                % automatically added
```

- ↳ Markdown sources are provided in appendix



A section in Markdown level 1

Summary

1 Instructions

2 **A section in Markdown level 1**
A subsection in Markdown level 2

3 Markdown Sources of these slides



Frametitle on level 3

Note: These examples are translated from the example of Romain Vimont

- see the [mdbeamer](#) repository on Github

Block on level 4

- item 1 in a block
- item 2 in a block
 - ↪ sub item 1



More on Blocks

A First Block

inside the **block** in **Markdown**

Comments below the first block.

A second block

- inside the second block



Why?

- the source code is more readable
 - ↪ sub item 1
 - ↪ sub item 2
 - ✓ sub sub item 1
 - ✓ sub sub item 2
- The syntax **is** more **convenient**
 - ↪ Strikeout: This ~~is deleted text.~~
 - ↪ Superscripts and subscripts:
 - ✓ H_2O is a liquid
 - ✓ 2^{10} is 1024.
- Write me!



Code block

- Easy code block, with color syntaxing, just specify the language:

```
$ whoami # commentaire bash
$ sudo apt install pandoc
```

With line numbers (but the rendering is sub-optimal):

```
5  int main(int argc, char *argv[]) {
6      printf("Hello world!\n");
7      return 0;
8  }
```



Lists

- item one
 - item two
-
- another list item 1
 - another list item 2



Enumerate list

- ❶ clone the repository
- ❷ install pandoc
- ❸ Install the dependencies
 - a. `texlive-latex-base`
 - b. `latex-beamer`
- ❹ Install a PDF reader



Citations and appearance

This is from **Mitch Resnick**.

If you learn to read, you can then read to learn.

*If you learn to code, you can then code to learn.*¹

Now a step-by-step appearance:

- first

¹http://www.ted.com/talks/mitch_resnick_let_s_teach_kids_to_code.html



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Citations and appearance

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If you learn to read, you can then read to learn.

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Now a step-by-step appearance:

- first
- then
- finally

¹http://www.ted.com/talks/mitch_resnick_let_s_teach_kids_to_code.html



A section in Markdown level 1

More appearance

A first paragraph



A section in Markdown level 1

More appearance

A first paragraph

Then another.



More appearance

A first paragraph

Then another.

Now some formatting:

There exists 2 types of persons:

- those who understand recursivity and

- those who don't understand that there exists 2 types of persons:

 - those who understand recursivity and

 - those who don't understand that there exists 2 types of persons:

 - ...



L^AT_EX/Beamer Special

- Some elements **do not** exist in Pandoc Markdown.
↳ in this case, you shall simply use L^AT_EX;)

Alert

That's an alertblock with some L^AT_EX syntax

Example

That's an exampleblock with some L^AT_EX syntax



Maths & Tables

With some Formulaes:

$$\frac{\pi}{4} = \int_0^1 \sqrt{1-x^2} dx$$

And now some table

Test	left	centre	right
item 1	14	28	56
item 2	1	text	2^{128}



Images

- You can of course do it in \LaTeX directly
 - ↪ recall to eventually adapt `\graphicspath{}` to specify the searched directories:

```
\hfill{}\includegraphics[width=0.1\textwidth]{logo_github.png}\hfill{}
```



- Classical markdown syntax (yet with no control on the size)

``





Advanced images management

- Placing images remains complex in \LaTeX
- A very useful package to **program** image placement is `textpos`
 - ↪ placement as **overlay** as in the below example
 - ↪ particularly interesting to optimize empty area in your slides

```
% Useful package to place text wherever you want.
% Usage: (where WIDTH, X and Y are relative numbers between 0 and 1)
% \begin{textblock}{WIDTH}(X,Y) % Ex \begin{textblock}{0.15}(0.6,0.5) % top right slide area
% ...                          % \includegraphics[width=\textwidth]{...}
% \end{textblock}              % \end{textblock}
\usepackage[absolute,overlay]{textpos}
% Set unit for textpos / textblock
\setlength{\TPHorizModule}{\paperwidth}
\setlength{\TPVertModule}{\paperheight}
% [...]
\begin{textblock}{0.15}(0.6,0.5)
\includegraphics[width=\textwidth]{logo_github.png}
\end{textblock}
```





Columns (with markdown inside)

To permit the usage of Markdown within a beamer columns environment, you have to use the following commands:

```
\columnsbegin{<width>}  
...  
\column{<width>}  
...  
\columnsend
```

Some text on the left column

- item 1
- item 2
 - ↪ sub item 1

Text on the right column

- 1 enum 1
- 2 enum 2
 - a. sub enum 1



Columns w. blocks w. Markdown inside

A Block in A Column

- item 1
- item 2
 - ↪ sub item 1
- item 3
 - ↪ sub item 1
 - ↪ sub item 2

Inside a column environment:

- the block environment raise an error
- instead, use the following commands:

```
\blockbegin{Title}  
...  
\blockend
```

- This allows to use the Markdown syntax **in** the block.
 - ↪ only required with the `\columnsbegin ... \columnsend` construction



Links

Links on description environment:

pandoc <http://johnmacfarlane.net/pandoc/demo/example9/pandocs-markdown.html>

beamer [http://johnmacfarlane.net/pandoc/demo/example9/
producing-slide-shows-with-pandoc.html](http://johnmacfarlane.net/pandoc/demo/example9/producing-slide-shows-with-pandoc.html)

In french <http://enacit1.epfl.ch/markdown-pandoc/>

See UL HPC website.



Blocks with pandoc syntax

Perspectives

- liste
- liste

follow up text. . .



Columns with pandoc syntax

- Institute/[...]
Office
- **Contact:** prenom.nom@ssi.gouv.fr

`https://site.domain.com`

- Hello



Summary

- 1 Instructions
- 2 A section in Markdow level 1
A subsection in Markdown level 2
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Markdown Sources I

A section in Markdown level 1

3 ## A subsection in Markdown level 2

6 ### Frametitle on level 3

Note: These examples are translated from the example of Romain Vimont

9 * see the ['mdbeamer' repository on Github](<https://github.com/rom1v/mdbeamer>)

12 #### Block on level 4

* item 1 in a block

15 * item 2 in a block
 — sub item 1

18 ### More on Blocks

\blockbegin{A First Block}

21 inside the __block__ in *Markdown*



Markdown Sources II

```
\blockend
```

Comments below the first block.

```
#### A second block
```

```
* inside the second block
```

```
### Why?
```

```
* the source code is more readable
```

```
  — sub item 1
```

```
    — sub item 2
```

```
      * sub sub item 1
```

```
      * sub sub item 2
```

```
* The syntax _is_ more **convenient**
```

```
  — Strikeout: This is deleted text.
```

```
  — Superscripts and subscripts:
```

```
    *  $H_2O$  is a liquid
```

```
    *  $2^{10}$  is 1024.
```



Markdown Sources III

* [Write me!](mailto:sebastien.varrette@uni.lu)

Code block

* Easy code block, with color syntaxing, just specify the language:

```
''' bash
$ whoami # commentaire bash
$ sudo apt install pandoc
'''
```

With line numbers (but the rendering is sub-optimal):

```
'''{. c .numberLines startFrom="5"}
int main(int argc, char *argv[]) {
    printf("Hello world!\n");
    return 0;
}
'''
```



Markdown Sources IV

Lists

- * item one
- * item two

<!-- -->

- * another list item 1
- * another list item 2

Enumerate list

1. clone the repository
2. install 'pandoc'
3. Install the dependencies
 - a. 'texlive-latex-base'
 - b. 'latex-beamer'
4. Install a PDF reader

Citations and appearance



Markdown Sources V

```
87 This is from [*Mitch Resnick*](https://en.wikipedia.org/wiki/Mitchel_Resnick).
90 > If you learn to read, you can then read to learn.\
90 > If you learn to code, you can then code to learn.[^ted]
[^ted]: \tiny<http://www.ted.com/talks/mitch_resnick_let_s_teach_kids_to_code.html>
93
Now a step-by-step appearance:
96 > - first
96 > - then
96 > - finally
99
### More appearance
102 A first paragraph
. . .
105
Then another.
```



Markdown Sources VI

108

. . .

111

Now some formatting:

114

```
| There exists 2 types of persons:  
|   those who understand recursivity and  
|   those who don't understand that there exists 2 types of persons:  
|       those who understand recursivity and  
|       those who don't understand that there exists 2 types of persons:  
|   ...
```

117

120

\LaTeX /Beamer Special

123

* Some elements ___do not___ exist in Pandoc Markdown.
 – in **this case**, you shall simply use \LaTeX ;)

126

```
\begin{alertblock}{Alert}  
That's an alertblock with some \textbf{\LaTeX} syntax
```



Markdown Sources VII

```
\end{alertblock}
```

```
129 \begin{exampleblock}{Example}  
132 That's an exampleblock with some \textbf{\LaTeX} syntax  
132 \end{exampleblock}
```

```
### Maths \& Tables
```

```
135 With some Formulaes:
```

```
138 $$  
138 \frac{\pi}{4} = \int_0^1 \sqrt{1-x^2} \mathrm{d}x  
138 $$
```

```
141 And now some table
```

```
144 | __Test__ | __left__ | __centre__ | __right__ |  
144 |-----|:-----:|  
147 | item 1 | 14 | 28 | 56 |  
147 | item 2 | 1 | 'text' | $2^{128}$ |
```



Markdown Sources VIII

150

Images

153

* You can of course **do** it in `\LaTeX\` directly
— recall to eventually adapt `'\graphicspath{...}'` to specify the searched directories :

156

```
''' latex
\ hfill {} \includegraphics [width=0.1\textwidth]{logo_github.png} \ hfill {}
'''
```

159

```
\ hfill {} \includegraphics [width=0.1\textwidth]{logo_github.png} \ hfill {}
```

162

* Classical markdown syntax (yet with no control on the size)

165

```
'''

'''
```

168

```

```



Markdown Sources IX

```
171 ### Advanced images management

\begin{textblock}{0.15}(0.6,0.5)
174 \includegraphics[width=\textwidth]{logo_github.png}
\end{textblock}

177 * Placing images remains complex in \LaTeX
* A very useful package to _program_ image placement is 'textpos'
   - placement as overlay as in the below example
180   - particularly interesting to optimize empty area in your slides

\scriptsize

183 "" latex
% Useful package to place text wherever you want.
186 % Usage: (where WIDTH, X and Y are relative numbers between 0 and 1)
% \begin{textblock}{WIDTH}(X,Y) % Ex \begin{textblock}{0.25}(0.7,0.2) % top right slide area
% ... % \includegraphics[width=\textwidth]{...}
189 % \end{textblock} % \end{textblock}
\usepackage[absolute, overlay]{textpos}
```



Markdown Sources X

```
192 % Set unit for textpos / textblock
    \setlength{\TPHorizModule}{\paperwidth}
    \setlength{\TPVertModule}{\paperheight}
    % [...]
195 \begin{textblock}{0.15}(0.6,0.5)
    \includegraphics[width=\textwidth]{logo_github.png}
    \end{textblock}
198 ...

201

204 ### Columns (with markdown inside)

    To permit the usage of Markdown within a beamer columns environment, you have to use the following commands:

    ~~~~~latex
207 \columnsbegins{<width>}
    ...
    \column{<width>}
210 ...
    \columnsend
```



Markdown Sources XI

213

```
\columnsbegin{.5\textwidth}
```

216

Some text on the left column

* item 1

219 * item 2

— sub item 1

222

```
\column{.5\textwidth}
```

Text on the right column

225

1. **enum 1**

2. **enum 2**

228

a. sub **enum 1**

```
\columnsend
```

231

```
### Columns w. blocks w. Markdown inside
```



Markdown Sources XII

```
234 \columnbegin{.5\textwidth}

237 \blockbegin{A Block in A Column}

* item 1
* item 2
240   — sub item 1
* item 3
243   — sub item 1
      — sub item 2

\blockend

246 \column{.5\textwidth}

249 Inside a column environment:

* the 'block' environment raise an error
252 * instead, use the following commands:
```




Markdown Sources XIII

```
~~~~~\latex
255 \blockbegin{ Title }
    ...
    \blockend
258 ~~~~~

\columnsend

261 * This allows to use the Markdown syntax **in** the block.
    — only required with the '\columnbegin ... \columnsend' construction

264

### Links

267 \scriptsize

270 Links on description environment:

pandoc
273 ~ <http://johnmacfarlane.net/pandoc/demo/example9/pandocs-markdown.html>
```



Markdown Sources XIV

beamer

276 ~ <<http://johnmacfarlane.net/pandoc/demo/example9/producing-slide-shows-with-pandoc.html>>

In french

279 ~ <<http://enacit1.epfl.ch/markdown-pandoc/>>

See [UL HPC website].

282 [UL HPC website]: <http://hpc.uni.lu>

285 ### Blocks with pandoc syntax

::: {.block}

288 ##### Perspectives

— liste

291 — liste

:::

294 follow up text ...



Markdown Sources XV

```
297 ### Columns with pandoc syntax
    \ footnotesize
300 ::: columns
303 :::: {.column width=55%}

###
306 * Institute /[...] \ newline
    Office
309 * __Contact__: 'prenom.nom@ssi.gouv.fr'

::::
312 :::: {.column width=45%}

315 \centering
    \begin{tcolorbox}[width=0.8\textwidth]\centering
```



Markdown Sources XVI

```
318 \texttt{https://site.domain.com}  
    \end{tcolorbox}  
  
321 <!-- \scalebox{8}{\emph{?}} -->  
    :::  
  
324 :::  
  
    \scriptsize  
  
327 * Hello
```



Thank you for your attention...

Questions?

Firstname Lastname

mail: firstname.lastname@domain.com

Street / Local address

Postal code, country



1 Instructions

- 2 A section in Markdown level 1
A subsection in Markdown level 2
- 3 Markdown Sources of these slides