



The Falkor \LaTeX Beamer Style

An Example using Markdown Content

Sébastien Varrette

Parallel Computing and Optimization Group (PCOG),
University of Luxembourg (UL), Luxembourg

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 Markdown 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

Indented code blocks

```
if (a > 3) {  
    moveShip(5 * gravity, DOWN);  
}
```

Fenced code blocks

```
public static void main(String... args) {  
    System.out.println("Hello world!");  
}
```

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



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 reader Skim



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



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
- then

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



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
- 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



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

Example

That's an exampleblock



Maths & Tables

With some Formulaes:

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

And now some table

Test	col2	col3
item 1	14	28
item 2	1	1



Images

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



Figure:

So probably you wish to do it in \LaTeX directly





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 `\columnbegin ... \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  
In french http://enacit1.epfl.ch/markdown-pandoc/
```

See UL HPC website.



Summary

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



Markdown Sources I

A section in Markdow 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*

24 \blockend



Markdown Sources II

Comments below the first block.

```
27 ##### A second block
30
33 * inside the second block
36
39 ### Why?
42 * the source code is more readable
    - sub item 1
    - sub item 2
      * sub sub item 1
      * sub sub item 2
45 * The syntax _is_ more convenient
    - Strikeout: This is deleted text.
    - Superscripts and subscripts :
      *  $H_2O$  is a liquid
      *  $2^{10}$  is 1024.
48 * [Write me!](mailto:sebastien.varrette@uni.lu)

### Code block

Indented code blocks
```



Markdown Sources III

```
51   if (a > 3) {  
      moveShip(5 * gravity, DOWN);  
   }
```

54 Fenced code blocks

```
~~~~~java  
57 public static void main(String ... args) {  
      System.out.println("Hello world!");  
   }  
~~~~~
```

```
60  
~~~~~  
63 {.c}  
   int main(int argc, char *argv[]) {  
       printf("Hello world!\n");  
       return 0;  
   }  
~~~~~
```

69 ### Lists

```
72 * item one  
   * item two
```

```
<!-- -->
```



Markdown Sources IV

```
* 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 reader 'Skim'
```

```
### Citations and appearance
```

```
This is from [*Mitch Resnick*](https://en.wikipedia.org/wiki/Mitchel_Resnick).
```

```
> If you learn to read, you can then read to learn.\
> 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>
```

```
Now a step-by-step appearance:
```



Markdown Sources V

```
> – first  
> – then  
> – finally
```

```
### 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:  
|       ...
```



Markdown Sources VI

126 `### \LaTeX /Beamer Special`

Some elements `__do not__` exist in Pandoc Markdown.
In **this case**, you shall simply use `\LaTeX`.

129 `\begin{alertblock}{Alert}`
That's an alertblock
132 `\end{alertblock}`

`\begin{exampleblock}{Example}`
That's an exampleblock
135 `\end{exampleblock}`

138 `### Maths \& Tables`

With some Formulaes:

141 `$$`
$$\frac{\pi}{4} = \int_0^1 \sqrt{1-x^2} \mathrm{d}x$$

144 `$$`

And now some table

147

Test	col2	col3
-----	-----	-----



Markdown Sources VII

```
150 | item 1 | 14 | 28 |  
    | item 2 | 1 | 1 |  
    |      |   |   |
```

```
153 ### Images
```

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

```
159 
```

So probably you wish to **do** it in `\LaTeX` directly

```
162 \includegraphics [width=2em]{logo_ULHPC_100x100.png}
```

```
165 ### Columns (with markdown inside)
```

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

```
168 ~~~~latex  
    \columnsbegins{<width>}  
171 ...  
    \column{<width>}  
    ...  
174 \columnsend
```




Markdown Sources VIII

```
177 \columnsbegin{.5\textwidth}
Some text on the left column
180
* item 1
* item 2
183   — sub item 1

\column{.5\textwidth}
186
Text on the right column
189
1. enum 1
2. enum 2
   a. sub enum 1
192
\columnsend

195 ### Columns w. blocks w. Markdown inside

\columnsbegin{.5\textwidth}
198 \blockbegin{A Block in A Column}
```



Markdown Sources IX

```
201 * item 1
    * item 2
      - sub item 1
204 * item 3
      - sub item 1
      - sub item 2
207
\blockend
210 \column{.5\textwidth}

Inside a column environment:
213
* the 'block' environment raise an error
* instead, use the following commands:
216
~~~\latex
\blockbegin{ Title}
219 ...
\blockend
~~~
222
\columnsend
```



Markdown Sources X

```
* This allows to use the Markdown syntax **in** the block.  
  — only required with the '\columnbegin ... \columnsend' construction  
  
### Links  
  
\scriptsize  
  
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>  
  
In french  
~ <http://enacit1.epfl.ch/markdown-pandoc/>  
  
See [UL HPC website].  
  
[UL HPC website]: http://hpc.uni.lu
```



Thank you for your attention...

Questions?

Sebastien Varrette

mail: sebastien.varrette@uni.lu

Office E-007

Campus Kirchberg

6, rue Coudenhove-Kalergi

L-1359 Luxembourg



1 Instructions

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

3 Markdown Sources of these slides