

29/07/2024

aio-studi-and-thesis v0.1.0

English Manual

<https://github.com/fuchs-fabian/typst-template-aio-studi-and-thesis>

A template for students to create documentation and theses

Translated with: <https://www.deepl.com>

Fabian Fuchs

Abstract

This template can be used for extensive documentation as well as for final theses such as bachelor theses.

However, it should always be clarified in advance whether the template is accepted for the planned use.

The template is suitable for both German-language and English-language theses.

It is characterised by the fact that it is highly customisable despite the predefined design.

Initially, all template parameters are optional by default. It is then suitable for documentation. To make it suitable for theses, only one parameter needs to be changed.

Contents

ABSTRACT	I
1. USE OF THE TEMPLATE	1
1.1. Minimal use	1
1.2. Maximum configuration options	1
2. USE OF YOUR OWN 'UTILS'	5
2.1. Colors used	5
2.2. Own logic functions	5
2.2.1. Validation of whether something is none or an empty string ("").	5
2.2.2. Validation of whether a dictionary contains a specific key.	5
2.2.3. Conversion of content to a string	5
2.3. Prefabricated contents	5
2.3.1. Simple outline (simple-outline)	5
2.3.2. Content for signing (signing)	5
2.3.3. Uniform highlighting of keywords (emphasised)	6
2.3.4. TODO Handling	6
3. USE OF THE 'GENERAL ASSETS'	7
3.1. Card (card)	7
3.1.1. Example of the simplest use	7
3.1.2. Example with title	7
3.1.3. Example with image	7
3.1.4. Example with title and image	8
3.2. Author(s) box (author-box)	8
3.2.1. Example with one author	8
3.2.2. Example with several authors	8
3.3. Button (button)	9
3.3.1. Example of the simplest use	9
3.3.2. Example with a link	9
4. USE OF THE 'ASSETS FOR PROJECT MANAGEMENT'	10
4.1. Persona (persona)	10
4.2. Retrospective (retro)	13
4.2.1. Retrospective Sprint 1 (29/07/2024)	15
4.2.1.1. Improvements	15
4.2.1.2. Impediments	15
4.2.1.3. Measures	15
4.3. SMART-Table (smart)	16
4.4. User Story	17
SPECIAL THANKS AND RECOMMENDATION	19

1. Use of the template

After importing the template, a number of options are available. As it may be hard to tell, this template is highly customisable. But don't worry, all parameters are optional. However, it is recommended to specify at least one author under `authors` with name and assign a title.

It is important to know that external packages are available to the template user by default.

These are:

- `codly` (Full functional scope)
- `glossarium` (`gls`, `glspl`)

1.1. Minimal use

The import of at least `project` is required.

```
1 #show: project.with(  
2   // lang: "de",  
3   authors: (  
4     (name: "Your name"),  
5   ),  
6   title: "Title of the document"  
7 )
```

Typst

If the template is to be used in English, `lang` must be changed to `"en"`.

The translation was made with [DeepL](#), so that no guarantee can be given for the correctness and completeness of the translation.

1.2. Maximum configuration options

If certain directories are to be hidden, only the parameters that have `show` in their name must be set to `false`.

If `custom-cover-sheet` is not `none`, the cover sheet is overwritten and `cover-sheet` no longer has any influence. The same applies to `custom-declaration`. If it is not `none`, then `declaration-on-the-final-thesis` is overwritten.

`declaration-on-the-final-thesis` only works if `thesis-compliant` is set to `true`.

If certain dictionaries are used, care must be taken to ensure that parameters with a required comment are also contained in the dictionary.

```
1 #show: project.with(  
2   lang: "de",  
3   authors: (  
4     (name: "Your name"),  
5   ),  
6   title: "Title of the document"  
7 )
```

Typst

```

4      (
5          name: "Unknown author", // required
6          id: "",
7          email: ""
8      ),
9  ),
10  title: "Unknown title",
11  subtitle: none,
12  date: none,
13  version: none,
14  thesis-compliant: false,
15
16  // Format
17  side-margins: (
18      left: 3.5cm, // required
19      right: 3.5cm, // required
20      top: 3.5cm, // required
21      bottom: 3.5cm // required
22  ),
23  h1-spacing: 0.5em,
24  line-spacing: 0.65em,
25  font: "Roboto",
26  font-size: 11pt,
27  hyphenate: false,
28
29  // Color settings
30  primary-color: dark-blue,
31  secondary-color: blue,
32  text-color: dark-grey,
33  background-color: light-blue,
34
35  // Cover sheet
36  custom-cover-sheet: none,
37  cover-sheet: ( // none
38      university: ( // none
39          name: none, // required
40          street: none, // required
41          city: none, // required
42          logo: none
43      ),
44      employer: ( // none
45          name: none, // required

```

```

46     street: none, // required
47     city: none,   // required
48     logo: none
49 ),
50     cover-image: none,
51     description: none,
52     faculty: none,
53     programme: none,
54     semester: none,
55     course: none,
56     examiner: none,
57     submission-date: none
58 ),
59
60 // Declaration
61 custom-declaration: none,
62 declaration-on-the-final-thesis: (           // none
63     legal-reference: none,                   // required
64     thesis-name: none,                       // required
65     consent-to-publication-in-the-library: none, // required | true,
        false
66     genitive-of-university: none             // required
67 ),
68
69 // Abstract
70 abstract: none,
71
72 // Outlines
73 depth-toc: 4,
74 outlines-indent: 1em,
75 show-list-of-figures: false,
76 show-list-of-abbreviations: true,
77 list-of-abbreviations: (
78     (
79         key: "", // required
80         short: "", // required
81         plural: "",
82         long: "",
83         longplural: "",
84         desc: none,
85         group: "",
86     ),

```

```
87  ),
88  show-list-of-formulas: false,
89  custom-outlines: ( // none
90    (
91      title: none,    // required
92      custom: none    // required
93    ),
94  ),
95  show-list-of-tables: false,
96  show-list-of-todos: false,
97  literature-and-bibliography: none,
98  list-of-attachments: ( // none
99    (a: none),        // required
100  )
101 )
```

2. Use of your own 'Utils'

As there are some functions in Typst that are not available in other programming languages, for example, we have implemented them ourselves. These are also available to the user of the template.

2.1. Colors used

```
1 blue      // rgb("#009fe3")
2 dark-blue // rgb("#152f4e")
3 light-blue // rgb("#e8eff7")
4 dark-grey  // rgb("#4a4a49")
5 green      // rgb("#26a269")
6 purple     // rgb("#613583")
```

Typst

2.2. Own logic functions

This facilitated the implementation of certain logics for the template.

2.2.1. Validation of whether something is none or an empty string ("").

```
1 #is-not-none-or-empty(content)
```

Typst

2.2.2. Validation of whether a dictionary contains a specific key.

```
1 #dict-contains-key(dict: (), key)
```

Typst

2.2.3. Conversion of content to a string

```
1 #to-string(content)
```

Typst

2.3. Prefabricated contents

2.3.1. Simple outline (simple-outline)

These are listed in the table of contents.

```
1 #simple-outline(
2   title: none,
3   target: none,
4   indent: 1em,
5   depth: none
6 )
```

Typst

2.3.2. Content for signing (signing)

```
1 #signing(text: none)
```

Typst

Location, Date

Author's Signature

2.3.3. Uniform highlighting of keywords (emphasised)

```
1 #emphasized(fill: dark-blue, it)
```

Typst

Example:

```
1 #show "My keyword" : it => emphasized(fill: purple, it)
```

Typst

My keyword

2.3.4. TODO Handling

To obtain the TODO string, simply call up the following:

```
1 #txt-todo
```

Typst

TODO

To have a TODO that can also be listed in a table of contents with TODOs and highlighted in the text, the following function can be used:

```
1 #todo(it)
```

Typst

Example:

```
1 #todo("Still to be completed")
```

Typst

```
2 // or
```

```
3 #todo[This must also be filled in]
```

TODO: Still to be completed

TODO: This must also be filled in

To generate a table of contents for these TODOs, the parameter `show-list-of-todos` in `project` must be set to `true`:

```
1 show-list-of-todos: true,
```

Typst

3. Use of the 'general assets'

3.1. Card (card)

```
1 #card(Typst  
2   primary-color: dark-blue,  
3   background-color: light-blue,  
4   title: none,  
5   img: none,  
6   body  
7 )
```

3.1.1. Example of the simplest use

```
1 #card[My text in a card]Typst
```

My text in a card

3.1.2. Example with title

```
1 #card(title: "My Card")[Content]Typst
```

My Card

Content

3.1.3. Example with image

```
1 #card(img: image("certificate.png"))[Content]Typst
```

Content

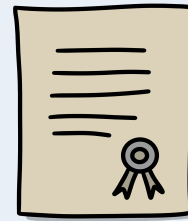


3.1.4. Example with title and image

```
1 #card(
2   title: "Card with title and image",
3   img: image("certificate.png")
4 )[Content]
```

Card with title and image

Content



3.2. Author(s) box (author-box)

```
1 #author-box(
2   background-color: light-blue,
3   plural: false,
4   body
5 )
```

3.2.1. Example with one author

```
1 #author-box[firstname lastname]
```

*Author: **firstname lastname***

3.2.2. Example with several authors

```
1 #author-box(
2   plural: true
3 )[firstname1 lastname1, firstname2 lastname2]
```

*Authors: **firstname1 lastname1, firstname2 lastname2***

3.3. Button (button)

The fill color (`fill`), the border (`stroke`) and the text color (`text-color`) can be set here.

```
1 #button(  
2   url: "",  
3   fill: none,  
4   stroke: none,  
5   text-color: none,  
6   body  
7 )
```

Typst

3.3.1. Example of the simplest use

```
1 #button[My Button]
```

Typst

My button

3.3.2. Example with a link

```
1 #button(url: "https://github.com/fuchs-fabian")[My link]
```

Typst

My link ↗

4. Use of the 'Assets for project management'

These assets are suitable for documentation. Please note that their use for a thesis must be agreed with the supervisor in advance.

4.1. Persona (persona)

```
1  #persona( Typst
2    primary-color: dark-blue,
3    text-color: dark-grey,
4    background-color: light-blue,
5    title: txt-todo,
6    img: image("images/persona.png", width: 6.5em),
7    name: txt-todo,
8    age: txt-todo,
9    family: txt-todo,
10   job: txt-todo,
11   do-and-say: txt-todo,
12   wishes: txt-todo,
13   see-and-hear: txt-todo,
14   challenges: txt-todo,
15   typical-day: txt-todo,
16   goals: txt-todo
17 )
```

Example:

```
1  #persona( Typst
2    title: [Student],
3    //img: none,
4    name: [Max Mustermann],
5    age: [26],
6    family: [single],
7    job: [working student],
8    do-and-say: [
9      I have no idea how to write documentation or a thesis using LaTeX
    or Word. It's too much work for me to have to adapt everything by hand.
10   ],
11   wishes: [
12     A template that I can use for both documentation and theses.
13   ],
14   see-and-hear: [
15     - Word is not particularly user-friendly when it comes to creating
    a professional document.
16     - LaTeX is too powerful to understand well.
17   ],
18   challenges: [
19     - To convince professors that there are new and more beautiful ways
    to create documents
20     - That this template may be used.
21   ],
22   typical-day: [
23     Writing project work and documentation.
24   ],
25   goals: [
26     An easier way to create documentation and theses without having to
    use Word or LaTeX.
27   ]
28 )
```

Persona: Student

Name	Max Mustermann
Age	26
Family	single
Job	working student



What I do and say	I have no idea how to write documentation or a thesis using LaTeX or Word. It's too much work for me to have to adapt everything by hand.
These are my wishes	A template that I can use for both documentation and theses.
What I see and hear	<ul style="list-style-type: none">• Word is not particularly user-friendly when it comes to creating a professional document.• LaTeX is too powerful to understand well.
These are my challenges	<ul style="list-style-type: none">• To convince professors that there are new and more beautiful ways to create documents• That this template may be used.
A typical day	Writing project work and documentation.
My goals	An easier way to create documentation and theses without having to use Word or LaTeX.

4.2. Retrospective (retro)

```
1  #retro(
2    primary-color: dark-blue,
3    secondary-color: blue,
4    text-color: dark-grey,
5    background-color: light-blue,
6    heading-starts-with: 2,
7    day: txt-todo,
8    sprint: none,
9    info: none,
10   img: image("images/starfish.png", height: 100pt),
11   more: none,
12   keep: none,
13   start: none,
14   stop: none,
15   less: none,
16   improvements: none,
17   impediments: none,
18   measures: none
19 )
```

Typst

Example:

```
1  #retro(
2    heading-starts-with: 3,
3    day: [29/07/2024],
4    sprint: [1],
5    info: [
6      This is my description of the retrospective.
7    ],
8    //img: none,
9    more: [
10     Understanding new technologies and programming languages
11   ],
12   keep: none,
13   start: [
14     Always create documentation and theses with Typst
15   ],
16   stop: none,
17   less: none,
18   improvements: [
19     - Easier writing of documentation and theses
20     - Standardised template for all documentation at the university
21   ],
22   impediments: [
23     - Formalities and design guidelines
24   ],
25   measures: [
26     - Talking to professors
27   ],
28 )
```

Typst

4.2.1. Retrospective Sprint 1 (29/07/2024)

This is my description of the retrospective.



more of	Understanding new technologies and programming languages
keep doing	NA
start doing	Always create documentation and theses with Typst
stop doing	NA
less of	NA

4.2.1.1. Improvements

- Easier writing of documentation and theses
- Standardised template for all documentation at the university

4.2.1.2. Impediments

- Formalities and design guidelines

4.2.1.3. Measures

- Talking to professors

4.3. SMART-Table (smart)

```
1 #smart(
2   primary-color: dark-blue,
3   text-color: dark-grey,
4   background-color: light-blue,
5   justify: false,
6   s: txt-todo,
7   m: txt-todo,
8   a: txt-todo,
9   r: txt-todo,
10  t: txt-todo
11 )
```

Example:

```
1 #smart(
2   justify: false,
3   s: [
4     #lorem(10)
5   ],
6   m: [
7     #lorem(10)
8   ],
9   a: [
10    #lorem(10)
11  ],
12  r: [
13    #lorem(10)
14  ],
15  t: [
16    #lorem(10)
17  ]
18 )
```

S	Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do.
M	Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do.
A	Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do.
R	Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do.
T	Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do.

4.4. User Story

```
1  #user-story( Typst
2    primary-color: dark-blue,
3    text-color: dark-grey,
4    background-color: light-blue,
5    id: txt-todo,
6    title: txt-todo,
7    sprint: txt-todo,
8    status: txt-todo,
9    description: txt-todo,
10   url: "",
11   url-without-id: "",
12   acceptance-criteria: none,
13   s: none,
14   m: none,
15   a: none,
16   r: none,
17   t: none,
18   body
19 )
```

Example:

```
1  #user-story(
2    id: [1],
3    title: [The title of the user story],
4    sprint: [1],
5    status: [Accepted],
6    description: [
7      #lorem(10)
8    ],
9    s: [
10     #lorem(10)
11   ],
12   m: [
13     #lorem(10)
14   ],
15   a: [
16     #lorem(10)
17   ],
18   r: [
19     #lorem(10)
20   ],
21   t: [
22     #lorem(10)
23   ],
24   none
25 )
```

ID	Title	Sprint	Status
1	The title of the user story	1	Accepted

User Story:

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do.

Acceptance Criteria:

S	Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do.
M	Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do.
A	Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do.
R	Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do.
T	Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do.

Special thanks and recommendation

In creating and publishing this template, the support of one person and their template was invaluable. Thanks to their help, I was able to make this template available to everyone:

Clemens Koza (SillyFreak)

I recommend taking a look at his templates as well:

- <https://github.com/TGM-HIT/typst-diploma-thesis>
- <https://github.com/SillyFreak/typst-package-template>

Fork of: <https://github.com/typst-community/typst-package-template>