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Public functions

Clean DHWB

- `clean-dhbw()`

clean-dhbw

This function does provide a template in (unofficial) accordance to the DHBW Stuttgart guideline for a Thesis.

Parameters

```
clean-dhbw(  
    title: str,  
    authors: dictionary,  
    language: str,  
    at-university: bool,  
    confidentiality-marker: dictionary,  
    type-of-thesis: str,  
    show-confidentiality-statement: bool,  
    show-declaration-of-authorship: bool,  
    show-table-of-contents: bool,  
    show-table-of-images: bool,  
    show-table-of-tables: bool,  
    show-table-of-code: bool,  
    show-table-of-equations: bool,  
    show-acronyms: bool,  
    show-abstract: bool,  
    glossary-spacing: length,  
    outline-number-title-spacing: length,  
    outline-entry-height: length,  
    outline-new-chapter-spacing: length,  
    abstract: content,  
    abstract-second-language: content,  
    second-language-for-abstract: str,  
    appendix: content,  
    acronyms: dictionary,  
    glossary,  
    confidentiality-statement-content: content,  
    declaration-of-authorship-content: content,  
    titlepage-content: content,  
    university: str,  
    university-location: str,  
    university-short: str,  
    city: str,  
    supervisor: str,  
    date: datetime,  
    date-format: str,  
    bibliography,  
    bib-style: str,  
    logo-left: content,  
    logo-right: content,  
    body: content  
)
```

title `str`

The title of your document.

Default: `str`

authors `dictionary`

A list of dictionaries with the authors. Each Author should have following elements:

- `name`: Name of the author -> `str`
- `student-id`: Student-ID of the author -> `str`
- `course`: Course of the author -> `str`
- `course-of-studies`: Course of studies of the author -> `str`
- `company`: dictionary containing:
 - `name` -> `str`
 - `post-code` -> `str`
 - `city` -> `str`
 - `country` -> `str`

Default: `(:)`

language `str`

The language in which this document is written. Currently supported are “de” and “en”.

Default: `"en"`

at-university `bool`

Define if the document is written for the university. Setting this true will hide the company and confidentiality statement.

Default: `true`

confidentiality-marker `dictionary`

Show a red dot on the upper right corner of the title page.

Default: `(display: false)`

type-of-thesis `str`

The type of the thesis, e.g. Bachelor Thesis or Paper.

Default: `none`

show-confidentiality-statement `bool`

Display the confidentiality statement. This will be ignored if `at-university` is set to true.

Default: `true`

show-declaration-of-authorship `bool`

Display declaration-of-authorship.

Default: `true`

show-table-of-contents `bool`

Display table of contents.

Default: `true`

show-table-of-images `bool`

Display table of figures (images).

Default: `true`

show-table-of-tables `bool`

Display table of tables.

Default: `true`

show-table-of-code `bool`

Display table of code.

Default: `true`

show-table-of-equations `bool`

Display table of equations.

Default: `true`

show-acronyms `bool`

Display all used acronyms.

Default: `true`

show-abstract `bool`

Display the abstract.

Default: `true`

glossary-spacing length

Spacing between the glossary term and its definition.

Default: **1.5em**

outline-number-title-spacing length

The spacing between the chapter number the the heading in an outline entry.

Default: **1em**

outline-entry-height length

The height of a outline entry (on single line).

Default: **1.1em**

outline-new-chapter-spacing length

The space above a new level 1 chapter in outlines, should be equa to page-grid.

Default: **16pt**

abstract content

The abstract in the main language.

Default: **none**

abstract-second-language content

The abstarct in the second language, second-language-for-abstract must be set.

Default: **none**

second-language-for-abstract str

The language for a second abstarct. See language for options.

Default: **none**

appendix content

The appendix.

Default: **none**

acronyms dictionary

Dictionary containing all acronyms.

Default: **none**

glossary

The glossary dictionary, containing words and their description.

Default: **none**

confidentiality-statement-content content

Overwrite the default content of the confidentiality statement.

Default: **none**

declaration-of-authorship-content content

Overwrite the default content of the declaration of authorship.

Default: **none**

titlepage-content content

Overwrite the default content of the titlepage.

Default: **none**

university str

Name the of the university.

Default: **none**

university-location str

Location of the university.

Default: **none**

university-short str

Shorthand for the university (eg. KIT), displayed for the university supervisor.

Default: **none**

city `str`

City of the author (only needed when at-university is true).

Default: `none`

supervisor `str`

Dictionary containing the name of the supervisor with the “university” or “company”. One of the two should be provided.

Default: `(:)`

date `datetime`

Datetime object to be displayed in the document.

Default: `datetime.today()`

date-format `str`

Date format to be displayed. See Typst docs for more information.

Default: `"[day].[month].[year]"`

bibliography

Bibliography object to be displayed.

Default: `none`

bib-style `str`

Display Style of the bibliography, see Typst docs for more information.

Default: `"ieee"`

logo-left `content`

Logo on the right side in the header. Should be the company logo. If only one logo is specified it will be centered on the titlepage.

Default: `image("img/general/firmenlogo.png")`

logo-right `content`

Logo on the left side in the header. Should be the University logo. If only one logo is specified it will be centered on the titlepage.

Default: `image("img/general/dhbw.svg")`

body `content`

The main Body, the actually written document.

Acronyms

- `acf()`
- `acfpl()`
- `acl()`
- `aclpl()`
- `acpl()`
- `acs()`
- `acspl()`
- `init-acronyms()`
- `print-acronyms()`

acf

Display an acronym as if it is shown for the first time.

```
As shown for the first time: \  
#acf("SPS")
```

```
As shown for the first time:  
Speicherprogrammierbare Steuerung (SPS)
```

Parameters

```
acf(  
  acr: str,  
  plural: bool  
) -> str
```

acr `str`

Acronym key

plural `bool`

Display the plural form

Default: `false`

acfpl

Display an acronym in the long plural form as if it is shown for the first time.

```
Long plural, as shown for the first time:  
\  
#acfpl("SPS")
```

```
Long plural, as shown for the first time:  
Speicherprogrammierbare Steuerungen (SPSs)
```


Parameters

```
acfpl(acr: str) -> str
```

acr str

Acronym key

acl

Display an acronym in the long form.

```
Long form: \  
#acl("SPS")
```

```
Long form:  
Speicherprogrammierbare Steuerung
```

Parameters

```
acl(  
    acr: str,  
    plural: bool  
) -> str
```

acr str

Acronym key

plural bool

Display the plural form

Default: false

aclpl

Display an acronym in the long plural form.

```
Long plural form: \  
#aclpl("SPS")
```

```
Long plural form:  
Speicherprogrammierbare Steuerungen
```

Parameters

```
aclpl(acr: str) -> str
```

acr str

Acronym key

acpl

Display an acronym in the plural form.

```
Plural form: #acpl("SPS")
```

```
Plural form: SPSen
```

Parameters

```
acpl(acronym) -> str
```

acs

Display an acronym in the short form

```
Short form: #acs("SPS")
```

```
Short form: SPS
```

Parameters

```
acs(  
  acr: str,  
  plural: bool  
) -> str
```

acr str

Acronym key

plural bool

Display the plural form

Default: false

acspl

Display an acronym in the short-plural form

```
Short plural form: #acspl("SPS")
```

```
Short plural form: SPSen
```

Parameters

```
acspl(acr: str) -> str
```

acr str

Acronym key

init-acronyms

Initialize the acronym.

This will set the dictionary containing all acronyms and define, if they should be linked to the `print-acronyms()`.

Parameters

```
init-acronyms(  
    acronyms: dictionary,  
    link-acros-to-toc  
)
```

acronyms `dictionary`

Dictionary containing all acronyms. See Define Acronyms for more information.

link-acros-to-toc

Creates links the output of `print-acronyms()`.

print-acronyms

Print all used acronyms in a outline.

Using this with `link-to-toc` true, will cause all acronyms to be linked to here.

Parameters

```
print-acronyms(  
    language: str,  
    font: str,  
    entry-height: length  
) -> content
```

language `str`

Language to be used

font `str`

Font to be used

entry-height `length`

Height of a single entry (line)

Define Acronyms

Variables:

- `acronyms`

acronyms

Dictionary containing all acronym with their short and long form.

Optional provide the plular form of the short and long verions.

If no plural is provided, s will be appended.

Exmample:

```
#let acronyms = (  
  // Only singular provded, for plural "s" will be appended.  
  API: "Application Programming Interface",  
  
  // Singular and plural are provided, with each short and long form.  
  SPS: (("SPS", "Speicherprogrammierbare Steuerung"), ("SPSen",  
"Speicherprogrammierbare Steuerungen")  
)
```

Custom equations

- equation()

Variables:

- outlined-equations

equation

Custom wrapper for equations to store them in outlined-equations and display them in an custom outline.

```
#equation(  
  caption: "Quadratic formula",  
  label: <eq:QuadraticFormula>,  
  $ (-b plus.minus sqrt(b^2 - 4 dot a dot  
c)) / (2 dot a) $,  
)
```

$$\frac{-b \pm \sqrt{b^2 - 4 \cdot a \cdot c}}{2 \cdot a} \quad (2.1)$$

Parameters

```
equation(  
  body,  
  caption: str content,  
  label: dictionary label location ref-label str  
) -> content
```

caption str or content

Caption of the equation. Proving a caption will display the equation in the outline with it's caption. The Caption is not shown below the equation.

Default: none

label dictionary or label or location or ref-label or str

Label of the equation. Must be provided.

Default: none

outlined-equations dictionary

Dictionary to store a equations label and caption in order to display them in a custom outline.

ToDo

- todo()

todo

Small function to mark text italic red and add the prefix “ToDo: “.

```
#todo("Add a pagebreak")
```

ToDo: Add a pagebreak

Parameters

`todo(task: str content) -> content`

task str or content

Content of the task.

Internal functions

Custom outline Entry

- custom-outline-entry-formatting()

custom-outline-entry-formatting

This function create one line seperated into front, mid, and back. It is intended to be used as a custom outline entry.

Parameters

```
custom-outline-entry-formatting(  
    location: dictionary label location ref-label str ,  
    front: content ,  
    mid: content ,  
    back: content ,  
    front-max-width: length fraction ,  
    spacing-after-front: length ,  
    entry-height: length  
)
```

location dictionary or label or location or ref-label or str

The location of the content, none will create no link.

Default: none

front content

Content of the front part, eg. "Figure 2.4".

Default: none

mid content

Content of the middle part eg. "This image shows a Cat".

Default: none

back content

Content of the end, will be most to the right. Eg. the page number "4".

Default: none

front-max-width length or fraction

Maximum width of all front entries, this is used so all front parts have the same width and the mid parts are aligned.

Default: 1fr

spacing-after-front length

The space inserted after front-max-width. If front-max-width is a fraction, this has no effect.

Default: 3em

entry-height length

The height of a single line (entry).

Default: 1em

abc

..