



University of Stuttgart
Institute for Control Engineering
of Machine Tools and Manufacturing Units
(ISW)



Master's Thesis

Emacs Orgmode ISW Template

submitted by

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Degree program

Examined by

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Submitted on

M. Sc. Mechatronik

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My supervisor, M.Sc.

October 24, 2024

Declaration of Originality

Master's Thesis of Max Mustermann (M. Sc. Mechatronik)

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English title	<i>Emacs Orgmode ISW Template</i>
German title	<i>Emacs Orgmode ISW Template</i>

I now declare,

- that I wrote this work independently,
- that no sources other than those stated are used and that all statements taken from other works—directly or figuratively—are marked as such,
- that the work submitted was not the subject of any other examination procedure, either in its entirety or in substantial parts,
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Stuttgart, October 24, 2024

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1 Orgmode Template

In order to get started with the template you can use the following empty document and work from there. This is quite a bit redundant, but as a lot of things are set up with comments and orgmode specific options they won't be rendered in a Github / Gitlab preview):

```
* Document Setup :ignore:
# This section contains all the setup necessary to export this org document
# directly into an ISW style PDF The ~ignore~ tags on the headlines are
# necessary
** Setupfile :ignore:
#+SETUPFILE: settings.org
** Document Type :ignore:
# % This class does the ISW styling for you (together with scrbook).
# %
# % It handles the following:
# % - Proper input and font encoding (Just type, don't care about the LaTeX
# %   compiler you use or how to type # German umlauts)
# % - Fonts with ligatures and kerning (Tex Gyre fonts are used, part of every
# %   LaTeX installation, text is # nice to read
# % - Bibliography styling for biblatex (declare your bibliography file and you
# %   are ready to go)
# % - Provide command for title page (\makeISWtitle) and declaration of
# %   originality ( \declarationOfOriginality)
# % - Loads packages "biblatex" and "graphics"
#+LATEX_HEADER: \usepackage[
#+LATEX_HEADER:     type=MA
# #+LATEX_HEADER:     type=BA
# #+LATEX_HEADER:     type=FA
# #+LATEX_HEADER:     type=SA
# #+LATEX_HEADER:     type=bachelorproject
#+LATEX_HEADER: ]{iswthesis}
** Language :ignore:
# #+LATEX_HEADER: \usepackage[english, ngerman]{babel}
#+LATEX_HEADER: \usepackage[ngerman, english]{babel}
** Latex: Bibliography :ignore:
#+LATEX_HEADER: \addbibresource{bibliography.bib}
** TODO Document Settings: Author, Title, Date :ignore:
# you need to set both titles, latex and orgmode
#+TITLE: Emacs Orgmode ISW Template
#+LATEX_HEADER:\title{Emacs Orgmode ISW Template}
```

1 Orgmode Template

```
#+LATEX_HEADER:\titleTranslated{Emacs Orgmode ISW Template}
#+AUTHOR:
#+LATEX_HEADER:\author{Max Mustermann}
#+LATEX_HEADER:\placeOfBirth{Stuttgart}
#+LATEX_HEADER:\address{Seidenstraße 36, 70174 Stuttgart}
#+LATEX_HEADER:\major{Mechatronik}
#+LATEX_HEADER:\matrnr{1234567}
#+LATEX_HEADER:\date{\today}
#+LATEX_HEADER:\supervisor{My supervisor, M.Sc.}
#+LATEX_HEADER:\professor{Prof. Dr.-Ing. Oliver Riedel}
** Begin Document Section :ignore:

\frontmatter
\makeISWtitle
\cleardoublepage
# % start at page (i) after title page:
\setcounter{page}{1}
\declarationOfOriginality
# % Kurzfassung/Abstract
\cleardoublepage
\tableofcontents
\mainmatter

* Your Content
* Document Ending: Bibliography, Lists, Appendixes :ignore:
\backmatter
\cleardoublepage
\printbibliography
\cleardoublepage
\listoffigures
\cleardoublepage
\listoftables
\cleardoublepage
```

2 (Doom) Emacs specific Configuration

In order to get this file working here are the minimally relevant sections from the doom emacs configuration:

2.1 init.el

```
(doom! :input

:completion
(corfu +orderless) ; complete with cap(f), cape and a flying feather!
(helm +childframe +fuzzy +icons) ; the *other* search engine for love and life

:ui
doom ; what makes DOOM look the way it does
doom-dashboard ; a nifty splash screen for Emacs
(emoji +unicode) ;
hl-todo ; highlight TODO/FIXME/NOTE/DEPRECATED/HACK/REVIEW
modeline ; snazzy, Atom-inspired modeline, plus API
ophints ; highlight the region an operation acts on
(popup +defaults) ; tame sudden yet inevitable temporary windows
(vc-gutter +pretty) ; vcs diff in the fringe
vi-tilde-fringe ; fringe tildes to mark beyond EOB
workspaces ; tab emulation, persistence & separate workspaces

:editor
file-templates ; auto-snippets for empty files
fold ; (nigh) universal code folding
snippets ; my elves. They type so I don't have to

:emacs
dired ; making dired pretty [functional]
electric ; smarter, keyword-based electric-indent
undo ; persistent, smarter undo for your inevitable mistakes
vc ; version-control and Emacs, sitting in a tree

:term

:checkers
syntax ; tasing you for every semicolon you forget
```

2 (Doom) Emacs specific Configuration

```
:tools
(eval +overlay)      ; run code, run (also, repls)
lookup               ; navigate your code and its documentation
magit                ; a git porcelain for Emacs
pdf                  ; pdf enhancements

:os
(:if (featurep :system 'macos) macos) ; improve compatibility with macOS

:lang
emacs-lisp           ; drown in parentheses
(latex                ; writing papers in Emacs has never been so fun
 +latexmk
 )
markdown             ; writing docs for people to ignore
(org                  ; organize your plain life in plain text
 +pretty
 +hugo
 +babel
 +latex
 )
sh                    ; she sells {ba,z,fi}sh shells on the C xor

:email

:app

:config
(default +bindings +smartparens))
```

2.2 Defining the scrbook Latex Class

In config.el:

```
(add-to-list 'org-latex-classes
  '("scrbook"
    "\\documentclass{scrbook}"
    ("\\chapter{%s}" . "\\chapter{%s}")
    ("\\section{%s}" . "\\section*{%s}")
    ("\\subsection{%s}" . "\\subsection*{%s}")
    ("\\paragraph{%s}" . "\\paragraph*{%s}")
  )
)
```


2.3 org-special-block-extras

Enables interesting stuff such as the ignore tag, which we use extensively in the Document setup section and the settings.org file.

packages.el:

```
(package! org-special-block-extras)
```

config.el:

```
;; enable ox-extra in order to be able to use the :ignore: tag to ignore the export of headlines
(require 'ox-extra)
(ox-extras-activate '(ignore-headlines))
```

2.4 Latex Export :: Xelatex

config.el:

```
(after! org
  (setq org-latex-compiler "xelatex")
  (setq org-latex-pdf-process
    '("xelatex -shell-escape -interaction nonstopmode -output-directory %o %f"
      "biber %b" ;; Run biber to process citations
      "xelatex -shell-escape -interaction nonstopmode -output-directory %o %f"
      "xelatex -shell-escape -interaction nonstopmode -output-directory %o %f"
      "rm -f %o/*.log %o/*.out %o/*.toc %o/*.lof %o/*.lot %o/*.synctex.gz"
    )))
```

2.5 ox-bibtex

config.el:

```
(after! org
  (require 'ox-bibtex))
```

2.6 bibtex citation format

config.el:

```
(setq bibtex-completion-format-citation-functions
  '((org-mode      . bibtex-completion-format-citation-org-ref)
    (latex-mode    . bibtex-completion-format-citation-cite)
    (markdown-mode . bibtex-completion-format-citation-pandoc-citeproc)))
```

2.7 helm-bibtex

packages.el:

```
(package! helm-bibtex)
```

config.el:

```
;; helm-bibtex related stuff
(after! helm
  (use-package! helm-bibtex
    :custom
    ;; The line below tells helm-bibtex to find the path to the pdf
    ;; in the "file" field in the .bib file.
    (bibtex-completion-pdf-field "file"))
    ;; I also like to be able to view my library from anywhere in emacs, for
    ;; example if I want to read a paper. I added the keybind below for that.
    (map! :leader
      :desc "Open literature database"
      "o l" #'helm-bibtex))
```

2.8 TODO bibliography paths

You probably want to change this part when starting to use this:

```
(setq bibtex-completion-bibliography '("~/uni/thesis/bibliography.bib"))
(setq bibtex-completion-library-path '("~/uni/thesis/literature/"))
;; (setq bibtex-completion-notes-path "~/uni/thesis/literature/")
(setq org-ref-default-bibliography '("~/uni/thesis/bibliography.bib"))
(setq org-ref-pdf-directory "~/uni/thesis/literature/")
(setq org-ref-bibliography-notes "~/uni/thesis/literature.org")
```

2.9 org-ref

```
(package! org-ref)
```

```
(defun bibtex-completion-format-citation-org-ref (keys)
  "Format the citation for 'org-ref'."
  (mapconcat (lambda (key) (format "[[cite:%s]]" key)) keys ", "))

(use-package! org-ref
  :after org
  :init
  ; code to run before loading org-ref)
```

```

:config
; code to run after loading org-ref
(after! org
  (use-package! org-ref
    :config
    ;; Set up citation format for org-mode using org-ref
    (setq bibtex-completion-format-citation-functions
      '((org-mode . bibtex-completion-format-citation-org-ref)
        (latex-mode . bibtex-completion-format-citation-cite)
        (markdown-mode . bibtex-completion-format-citation-pandoc-citeproc))))
))

```

2.10 Code Export

In order to export to listings blocks instead of the default verbatim blocks, we need to set this somewhere in config.el:

```

(after! org
  (setq org-latex-listings t)
  (setq org-latex-src-block-backend 'listings))

```

This way we can then export code blocks such as this:

```

#+NAME: lst:bad_code_example
#+CAPTION: "This code does not provide any insights and should not be included."
#+BEGIN_SRC c++ :exports code
#include <iostream>

using namespace std;

int main(void){
    cout << "Hello world." << endl;
    return 0;
}
#+END_SRC

```

Into something like this

```

#include <iostream>

using namespace std;

int main(void){
    cout << "Hello world." << endl;
    return 0;
}

```

Listing 2.1: “This code does not provide any insights and should not be included.”

3 Example Section: Better Margin Control

Here are a bunch of examples for the newly added margins. Code blocks show them best, as there is a visible border but they are generic so I've also added a table as well.

In org-mode all of them look more or less like this (to prevent the Macro being executed I have added Zero Width Space characters here so copy/pasting this won't work):

```
...
{{{ begin-narrowmargin}}} <- Zero Width Space characters in here

{\{{{begin-narrowmargin}}}}
#+begin_src emacs-lisp
(message "Narrow margin example")
#+end_src

| A | B | C | D | E | F | A | B | C | D | E | F | A | B |
|---+---+---+---+---+---+---+---+---+---+---+---+---+---+
| 2 | 8 | 3 | 1 | 3 | 6 | 2 | 8 | 3 | 1 | 3 | 6 | 2 | 8 |
| 5 | 7 | 9 | 2 | 2 | 7 | 5 | 7 | 9 | 2 | 2 | 7 | 5 | 7 | ...
{{{ end-narrowmargin}}} <- Zero Width Space characters in here
...
```

3.1 Narrow Margin (0.5cm)

```
(message "Narrow margin example")
```

A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E
2	8	3	1	3	6	2	8	3	1	3	6	2	8	3	1	3	6	2	8	3	1	3
5	7	9	2	2	7	5	7	9	2	2	7	5	7	9	2	2	7	5	7	9	2	2

3.2 Medium Margin (1cm)

```
(message "Medium margin example")
```

A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F
2	8	3	1	3	6	2	8	3	1	3	6	2	8	3	1	3	6	2	8	3	1	3	6
5	7	9	2	2	7	5	7	9	2	2	7	5	7	9	2	2	7	5	7	9	2	2	7

3.3 Wide Margin (1.5cm)

(message "Wide margin example")

A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B
2	8	3	1	3	6	2	8	3	1	3	6	2	8	3	1	3	6	2	8	3	1	3	6	2	8
5	7	9	2	2	7	5	7	9	2	2	7	5	7	9	2	2	7	5	7	9	2	2	7	5	7

3.4 Very Wide Margin (2cm)

(message "Very wide margin example")

A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C
2	8	3	1	3	6	2	8	3	1	3	6	2	8	3	1	3	6	2	8	3	1	3	6	2	8	3
5	7	9	2	2	7	5	7	9	2	2	7	5	7	9	2	2	7	5	7	9	2	2	7	5	7	9

3.5 Extra Wide Margin (2.5cm)

(message "Extra wide margin example")

Gadget	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F	Units
Phone	2	8	3	1	3	6	2	8	3	1	3	6	2	8	3	1	3	6	2	8	3	1	3	6	1
Laptop	5	7	9	2	2	7	5	7	9	2	2	7	5	7	9	2	2	7	5	7	9	2	2	7	2

4 Quotes

Here are some random quotes from the ISW bibliography.

So let's just quote [1]

- [2]
- Talbot, N. (2014). User manual for glossaries.sty v4.09.
- A quote with page number: [2][p.10] (not sure if this one works as in intended)
 - [3]

5 Import of the rest of the chapters

Lets add in the other chapters here:

```
#+LATEX: \input{chapters/Introduction}  
#+LATEX: \input{chapters/Examples}  
#+LATEX: \input{chapters/Tooling}  
  
#+LATEX: \input{chapters/Acronyms}  
#+LATEX: \input{chapters/Symbols}
```

When Importing everything this way, we get a bunch of errors / warnings. As they are caused by the template itself I won't bother to fix them here. Commenting the `#+LATEX` lines out will compile a working document.

6 Introduction

The aim of student theses is to show that students are able to work on tasks from their own field independently and according to scientific methods and that they can present their results appropriately. These objectives, defined in the examination regulations, raise a number of questions:

- What does “working according to scientific methods” actually mean?
- What belongs to the proper presentation of results?
- Which standards and guidelines apply at the Institut für Steuerungstechnik der Werkzeugmaschinen und Fertigungseinrichtungen (ISW)?
- What is to be considered in general when writing student theses at the ISW?

Read the guidelines for the preparation of student theses at ISW! The chapters used in this template are for inspiration only. Each thesis is different and the chapter headings and their order should be adapted accordingly.

7 Examples

In the following some examples for the conversion in \LaTeX are listed. For formal requirements, please have a look at the guidelines for the preparation of student theses at the ISW.

7.1 Listings

An introduction for list environments with \LaTeX can be found at https://en.wikibooks.org/wiki/LaTeX/List_Structures.

An unordered enumeration can look like this:

- Fusce tincidunt consectetur nisl a pretium. Nam sed eleifend nunc. Nulla feugiat nisl ac mauris varius, eu viverra tellus condimentum. Nullam tempus dolor a elementum con-vallis. Nam sagittis, nisi non tempor luctus, enim ex pretium nunc, lacinia suscipit arcu augue id sem.
- Fusce tincidunt consectetur nisl a pretium. Nam sed eleifend nunc. Nulla feugiat nisl ac mauris varius, eu viverra tellus condimentum. Nullam tempus dolor a elementum con-vallis. Nam sagittis, nisi non tempor luctus, enim ex pretium nunc, lacinia suscipit arcu augue id sem.
- Fusce tincidunt consectetur nisl a pretium. Nam sed eleifend nunc. Nulla feugiat nisl ac mauris varius, eu viverra tellus condimentum. Nullam tempus dolor a elementum con-vallis. Nam sagittis, nisi non tempor luctus, enim ex pretium nunc, lacinia suscipit arcu augue id sem.

Use the `enumerate` environment for ordered lists.

1. Fusce tincidunt consectetur nisl a pretium. Nam sed eleifend nunc. Nulla feugiat nisl ac mauris varius, eu viverra tellus condimentum. Nullam tempus dolor a elementum con-vallis. Nam sagittis, nisi non tempor luctus, enim ex pretium nunc, lacinia suscipit arcu augue id sem.
2. Fusce tincidunt consectetur nisl a pretium. Nam sed eleifend nunc. Nulla feugiat nisl ac mauris varius, eu viverra tellus condimentum. Nullam tempus dolor a elementum con-vallis. Nam sagittis, nisi non tempor luctus, enim ex pretium nunc, lacinia suscipit arcu augue id sem.

3. Fusce tincidunt consectetur nisl a pretium. Nam sed eleifend nunc. Nulla feugiat nisl ac mauris varius, eu viverra tellus condimentum. Nullam tempus dolor a elementum con-vallis. Nam sagittis, nisi non tempor luctus, enim ex pretium nunc, lacinia suscipit arcu augue id sem.

Descriptions are set with the `description` environment.

Mosquito Fusce tincidunt consectetur nisl a pretium. Nam sed eleifend nunc. Nulla feugiat nisl ac mauris varius, eu viverra tellus condimentum. Nullam tempus dolor a elementum con-vallis. Nam sagittis, nisi non tempor luctus, enim ex pretium nunc, lacinia suscipit arcu augue id sem.

Emu Fusce tincidunt consectetur nisl a pretium. Nam sed eleifend nunc. Nulla feugiat nisl ac mauris varius, eu viverra tellus condimentum. Nullam tempus dolor a elementum con-vallis. Nam sagittis, nisi non tempor luctus, enim ex pretium nunc, lacinia suscipit arcu augue id sem.

Armadillo Fusce tincidunt consectetur nisl a pretium. Nam sed eleifend nunc. Nulla feugiat nisl ac mauris varius, eu viverra tellus condimentum. Nullam tempus dolor a elementum con-vallis. Nam sagittis, nisi non tempor luctus, enim ex pretium nunc, lacinia suscipit arcu augue id sem.

7.2 Cite

Cite with the `\cite{}` command [4], [5]. You can mention authors and titles as well with `\citeauthor{}` and `\citetitle{}`: E.g., `Feuersänger` developed `pgfplots` and describes it in the documentation Manual for Package `pgfplots`.

Use tools for literature management as `JabRef` or `Citavi`.

7.3 Typing math

An introduction for typing math with \LaTeX can be found at https://de.wikibooks.org/wiki/LaTeX-Kompodium:_F%C3%BCr_Mathematiker. The Wikipedia page for typesetting math is worth a visit as well (<https://de.wikipedia.org/wiki/Formelsatz>).

You can use `\(... \)` to typeset formulas in text e.g., $\sqrt{a^2}$ or $\begin{bmatrix} a & b & c \end{bmatrix}^T$ (`\bmat` and `\T` are self-defined macros from `settings.tex`).

Multiline math environments can e.g. be set with the `align` environment. A `&` character helps with the vertical alignment.

$$\begin{aligned} c^2 &= a^2 + b^2 \\ \Leftrightarrow c &= \pm \sqrt{a^2 + b^2} \end{aligned} \tag{7.1}$$

Only number equations that will be referenced later, such as Equation 7.1. `\nonumber` suppresses the generation of an equation number.

7.4 Tables

Tables are set in a table environment, as shown in Table 7.1. They must always be referenced and explained in the previous text. The package `booktabs` facilitates the consistent use of horizontal line strengths.

Article		
Animal	Description	Price (€)
Mosquito	per gramm	13.65
	per piece	0.01
Gnu	stuffed	92.50
Emu	stuffed	33.33
Armadillo	frozen	8.99

Table 7.1: Example table using the `booktabs` package

7.5 Graphics

Simple graphics can be integrated with `\includegraphics`. Always use a figure environment for graphics. Reference graphics before they appear in the text, such as Figure 7.1, and assign meaningful captions to them.



Figure 7.1: The logo of the ISW at the University of Stuttgart

Some graphics with TikZ and PGFplots are shown on Figure 7.2, Figure 7.3a, Figure 7.3b and Figure 7.4 which might be helpful or inspirational for your thesis.

7 Examples

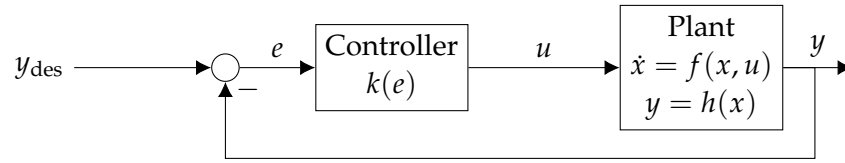


Figure 7.2: A simple block diagram

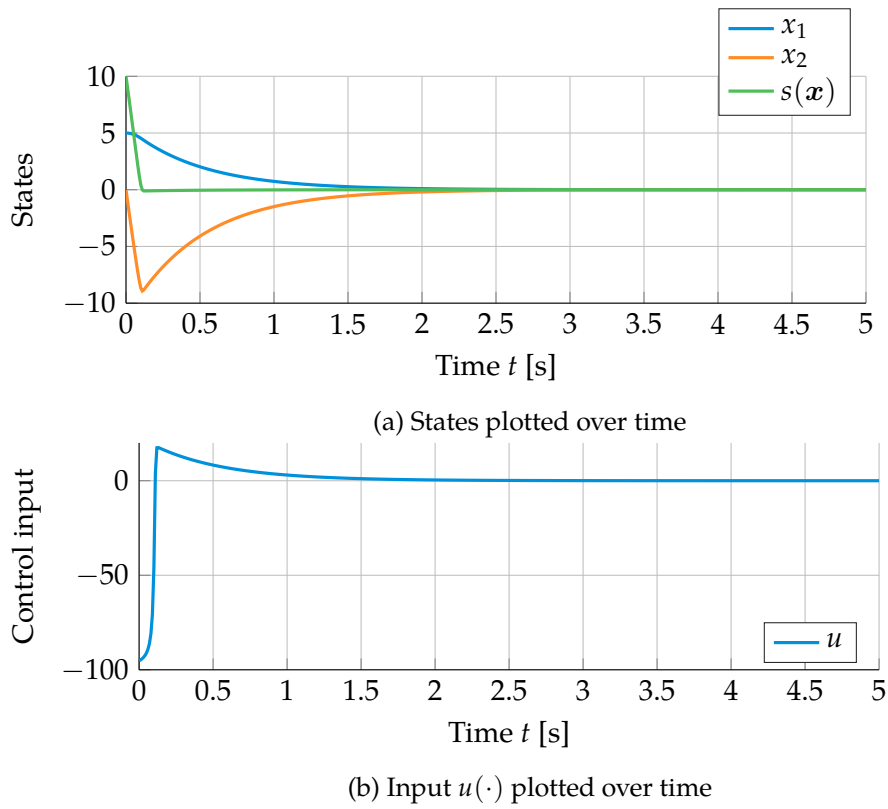


Figure 7.3: Example for exports from MATLAB with `matlab2tikz`

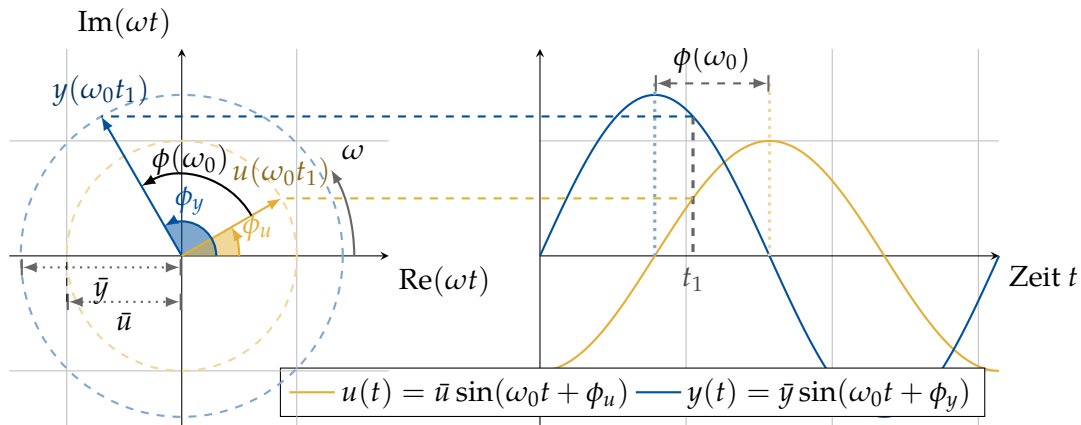


Figure 7.4: Analytical calculation of a phasor diagram with TikZ [7]

7.6 Code

The listings package, for example, is suitable for code excerpts. Make sure that you only include necessary code, Listing 7.1 is a bad example and should not be included.

```
#include <iostream>

using namespace std;

int main(void){
    cout << "Hello world." << endl;
    return 0;
}
```

Listing 7.1: This code does not provide any insights and should not be included.

7.7 Abbreviations

For abbreviations you can use the package acronym.

The command `\ac{}` introduces the abbreviation at the first use, for example ISW and several Speicherprogrammierbare Steuerungen (SPS). Then the abbreviations ISW and SPS will be used automatically. The definition of the abbreviations can be done in a separate file, the example document includes chapters/Acronyms.

We recommend resetting the acronym package after the abstract with `\acreset`, so they will be reintroduced in the introduction chapter.

8 Tooling

8.1 Recommended Editors

There are several options for working on your LaTeX document. All of them have individual strong suits and drawbacks. For locally installed editors it is highly recommended to use version control (see section 8.3).

8.1.1 Overleaf

By far the easiest and fastest setup is provided by `overleaf.com`. After creating an account, you can search for the ISW thesis template and start working on your thesis right away. Overleaf allows simultaneous editing of by multiple persons and provides integrated version control and document compilation. However, sometimes it is not possible to have your work hosted on public servers due to Non-Disclosure Agreements (NDAs). Ask your supervisor if you're allowed to use overleaf!

8.1.2 Visual Studio Code

VSCode is also a valid choice for editing latex documents. Just install the LaTeX Workshop extension. You should also consider installing the LTeX extension for integrating LanguageTool (see section 8.2).

8.1.3 TexStudio

All ISW pool computers come with the TeXstudio¹ latex editor and the MiKTeX² LaTeX distribution pre-installed. If they are missing from your ISW-machine, you can install them using the OPSI software-on-demand utility. Remember to select both for installation.

In TeXstudio, remember to set `lualatex` as the standard compiler and `biber` as the `bibtex` backend.

8.2 Checking of grammar, spell and style

As with all word-processing tasks, it is highly recommended to use at least some sort of spell-checking software. For this purpose TexStudio provides integration with Lan-

¹<https://www.texstudio.org/>

²<https://miktex.org/>

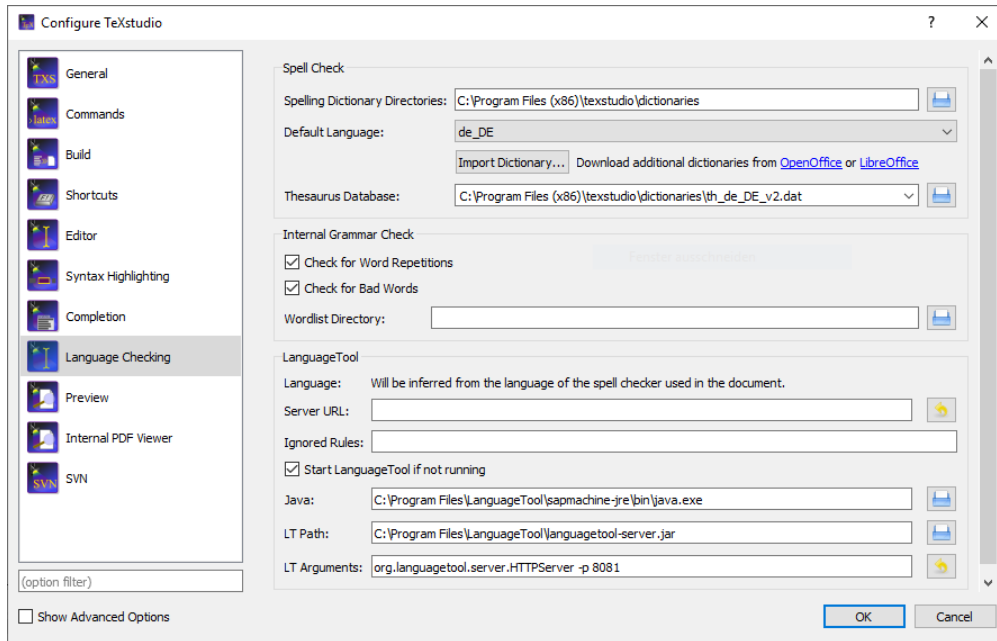


Figure 8.1

guageTool³. LanguageTool is a java based application, so make sure to install a Java Runtime Environment. On ISW pool-computers you can again install LanguageTool using OPSI software-on-demand. The necessary settings for ISW pool-computers are shown in Figure 8.1. Further information on the integration of LanguageTool with TeXStudio can be found at the LanguageTool Wiki ⁴.

8.3 Version control

Whenever working on a document, it is desirable to have some sort of version control. For this task, ISW provides a gitlab server found at <https://git.isw.uni-stuttgart.de/>. Once you are logged in to gitlab, you can create your own repository for tracking your thesis files. A .gitignore file is necessary to not track all changes to automatically generated files. You may use the .gitignore provided by this template. Again, if git is not installed on your ISW-machine, you can install it using OPSI software-on-demand.

You can achieve a rudimentary integration with TeXstudio by defining macros such as the git commit macro shown in Listing 8.1. Note that macros can also be called by using shortcuts.

```
%SCRIPT
dialog = new UniversalInputDialog()
```

³<https://languagetool.org>

⁴<http://wiki.languagetool.org/checking-la-tex-with-languagetool#toc2>

```
dialog.setWindowTitle("Git commit")
dialog.add("", "Message", "comment")
dialog.add(false, "Commit all files","allfiles")
if (dialog.exec() != null) {
comment = dialog.get("comment")
if ((dialog.get("allfiles")) == true){
buildManager.runCommand(
"git commit -a -m \"" + comment + "\"", editor.fileName())
}else{
buildManager.runCommand(
"git commit " + editor.fileName() + " -m \"" + comment +
"\"", editor.fileName())
}
}
```

Listing 8.1: git commit macro

List of Acronyms

ISW Institut für Steuerungstechnik der Werkzeugmaschinen und
Fertigungseinrichtungen der Universität Stuttgart

SPS Speicherprogrammierbare Steuerung

NDA Non-Disclosure Agreement

List of Symbols

This section is optional. Ask your supervisor whether it is required for your thesis. If you have more than 10 formulas involved it probably is.

There are two ways to build a list of symbols:

- If you just want to get it done, then use a `longtable` and fill your symbols in, see table below.
- If you want it fancy, then package `glossaries` (maybe `glossaries-extra`) may be your way to go. Be warned that although it automates symbol handling (e.g. sorting and referencing of symbols), it comes with some administrative overhead. You can find a discussion on different ways to achieve this on <https://tex.stackexchange.com/a/366282>.

Symbol	Unit	Description
ψ	rad	Heading angle of hamster
\dot{x}	m/s	Linear velocity of hamster
\ddot{x}_0	m/s ²	Initial acceleration of hamster

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