

# HUBerlin-bundle

Documents and Documentations for  $\text{\LaTeX}$  at the Humboldt-Universität zu Berlin

»Documentation must be regarded as an integral part of the process of design and coding. A good programming language will encourage and assist the programmer to write clear, self-documenting code, and even perhaps to develop and display a pleasant style of writing.« [1, p. 195]

# Contents

<b>1</b>	<b>Introduction</b> —3
1.1	Installation of the bundle—3
1.2	Changelog—3
1.3	Copyright—3
1.3.1	Boilerplate / markdown-template—3
<b>2</b>	<b>Preamble</b> —4
<b>I</b>	<b>GUIDELINE FOR USERS</b>
<b>3</b>	<b>Letter</b> —6
3.1	.lco-file—6
3.2	.tex-file—8
3.3	Letter from markdown—10
<b>II</b>	<b>GUIDE FOR CODERS</b>
<b>4</b>	<b>Letter</b> —13
<b>5</b>	<b>Boilerplate / Template for letters</b> —19
<b>6</b>	<b>Documentation preamble &lt;style&gt;</b> —21
<b>III</b>	<b>EXAMPLE FILES</b>
<b>7</b>	<b>Letter</b> —36
7.1	From .tex—36
7.2	From .md—39

# 1 Introduction

Following documents or documentclasses are available:

- **letter** (HUBerlin-letter.cls)

## 1.1 Installation of the bundle

HUBerlin is part of the distributions [MiKTeX](#) and [TeXLive](#) – thus, you can easily install it using the respective package manager. If you would like to install HUBerlin-bundle into your local folder manually, do the following: Go to your terminal, browse to the folder of this bundle and run

```
make install
```

If you are using macOS you might be asked for your user account password for the installation.

Further options of this makefile are:

- **clean**: deletes all unnecessary files
- **cleanbundle**: deletes all files except .dtx, .md. You will get the plain version of this bundle. This might be helpful if you send the bundle to someone else.
- **ctan**: this will create a zip file which can be used to send to CTAN.
- **files**: will only create the files from the .dtx-scratch.
- **uninstall**: will erase the locally installed files.

This bundle is constantly updated. For hints, errors or suggestions use the GitHub repository <https://github.com/LukasCBossert/HUBerlin-bundle>.

## 1.2 Changelog

All notable changes to this project will be documented in the [README.md](#). This project **does not** adhere to [Semantic Versioning](#). The markdown syntax is inspired by the conventions proposed by [keepachangelog.com](http://keepachangelog.com).

## 1.3 Copyright

Various parts of this bundle have different copyrights.

### 1.3.1 Boilerplate / markdown-template

This template, forked from the pandoc-templates and <https://github.com/JensErat/pandoc-scr1ttr2> is dual-licensed, under both the GPL (v2 or higher, same as pandoc) and the BSD 3-clause license (included below).

---

Copyright (c) 2014, John MacFarlane Copyright (c) 2014, Jens Erat All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

- Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- Neither the name of John MacFarlane nor the names of other contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

## 2 Preamble

This bundle consists of various files which are either generated by the core file (`.dtx`) or are part of the basic structure of this bundle. You can easily pick up the basic file structure from [fig. 2.1](#).

```
HUBerlin-bundle
├── HUBerlin-bundle.dtx..... code and documentation
├── HUBerlin-letter.tex ..... letter
├── HUBerlin-letter.lco ..... datafile for letter
├── HUBerlin-letter.pdf ..... letter
├── HUBerlin-letter-template.latex ..... template for conversion
├── HUBerlin-letter-markdown.pdf ..... converted letter from markdown
├── HUBerlin-letter.md ..... example markdown file
├── img ..... folder for images
│   └── texografie-logo.png..... logo of Lukas C. Bossert (www.TeXografie.de)
├── makefile..... makefile to generate all required files
└── README.md..... README file with information on installation
```

Figure 2.1: Structure of HUBerlin bundle

When you run the `makefile` you get all these various files described above.

A large, light gray, sans-serif capital letter 'I' is centered vertically and horizontally on the page. It serves as a background element for the title.

# Guideline for Users

1  $\langle *example \rangle$

### 3 Letter

We give an example on how to create a letter.

#### 3.1 .lco-file

2  $\langle *lco \rangle$

This is the file you load into your .tex letter. The information you provide here do normally not change from letter to letter. That's why we put it in a separate file.

The first line should provide this information.

3 `\ProvidesFile{HUBerlin-letter.lco}`

Now we set up the personal data.

We start with the name of the sender.

4 `\setkomavar{fromname}`

you can also write the position of this person in brackets, this is optional; [ $\langle position \rangle$ ]

5 `[Wissenschaftlicher Mitarbeiter]`

But you need to give a name:

6 `{Dr. Max Mustermann}`

The mail address

7 `\setkomavar{fromemail}{max.mustermann@hu-berlin.de}`

For phone and fax number you only need to type the last digits.

8 `\setkomavar{fromphone}{1234}`

If you don't have a fax (or a phone), leave it empty. Do *not* delete it.

9 `\setkomavar{fromfax}{5678}`

And finally the URL.

10 `\setkomavar{fromurl}{www.hu-berlin.de}`

If your backaddress is to long – it will be set up automatically – you can redefine it.

11 `\setkomavar{backaddress}{HU Berlin\\`

12 `Unter den Linden 6\\`

13 `D-10099 Berlin}`

Selfexplaining: the faculty.

14 `\setkomavar{faculty}{%`

15 `Philosophische Fakultät`

16 `}`

17 `\setkomavar{institute}{%`

18 `\mbox{Institut für Briefvorlagen}`

You could even put a figure/logo of the institute here. Just use `width=\useplength{locwidth}` to get the maximum possible width for the figure in the margin area.

```

19 %% \includegraphics[width=\useplength{locwidth}]{YOUR-LOGO.png}
20 }

21 \setkomavar{institute.additional}{Here you can more text.}

22 \setkomavar{institute.head}[Dekan]{Prof. Dr. Maike Musterfrau}

23 \setkomavar{institute.head.mail}{maike.musterfrau@hu-berlin.de}

24 \setkomavar{local}{%
25   Mohrenstraße 40/41\\
26   Zimmer X\\
27   D-10117 Berlin}

28 \setkomavar{connections}{U Bahnhof Hausvogteiplatz (U2)}

29 \setkomavar{accessibility}{Hausvogteiplatz}

30 \setkomavar{signature}{%
31   \usekomavar{institute.head} --
32   \usekomavar{fromname}
33 }

34 \lco

```

Example 1

```

1 \ProvidesFile{HUBerlin-letter.lco}
2 \setkomavar{fromname}
3 [Wissenschaftlicher Mitarbeiter]
4 {Dr. Max Mustermann}
5 \setkomavar{fromemail}{max.mustermann@hu-berlin.de}
6 \setkomavar{fromphone}{1234}
7 \setkomavar{fromfax}{5678}
8 \setkomavar{fromurl}{www.hu-berlin.de}
9 \setkomavar{backaddress}{HU Berlin\\
10 Unter den Linden 6\\
11 D-10099 Berlin}
12 \setkomavar{faculty}{%
13 Philosophische Fakultät
14 }
15 \setkomavar{institute}{%
16   \mbox{Institut für Briefvorlagen}
17   %%
18   \includegraphics[width=\useplength{locwidth}]{YOUR-LOGO.png}
19 }
20 \setkomavar{institute.additional}{Here you can more text.}
21 \setkomavar{institute.head}[Dekan]{Prof. Dr. Maike
22   Musterfrau}
23 \setkomavar{institute.head.mail}{maike.musterfrau@hu-berlin.de}
24 \setkomavar{local}{%
25   Mohrenstraße 40/41\\
26   Zimmer X\\
27   D-10117 Berlin}
28 \setkomavar{connections}{U Bahnhof Hausvogteiplatz (U2)}

```

```

27 \setkomavar{accessibility}{Hausvogteiplatz}
28 \setkomavar{signature}{%
29   \usekomavar{institute.head} --
30   \usekomavar{fromname}
31 }

```

### 3.2 .tex-file

```

35 ⟨*letter⟩

36 \documentclass{HUBerlin-letter}

```

Now we load the personal data-file which has the ending `.lco`.

```

37 \LoadLetterOption{HUBerlin-letter}

```

If you have the HU font installed on your computer, you can load it, too:

```

38 % \setmainfont[%
39 %   BoldFont=ScalaSans-BoldLF,
40 %   Numbers=OldStyle]{ScalaSans-RegularLF}

```

Now following the reference information

```

41 \setkomavar{myref}{}

42 \setkomavar{yourref}{}

43 \setkomavar{yourmail}{}

44 \setkomavar{customer}{}

45 \setkomavar{invoice}{}

46 \setkomavar{subject}{Betreff}

47 \usepackage{blindtext}

```

We close the preamble and start the letter

```

48 \begin{document}

```

The address is written as `{⟨address⟩}`

```

49 \begin{letter}{%

50   Erika Musterfrau\
51   Musterweg 43\
52   56789 Musterhausen%

```

Closing now again.

```

53 }

54 \opening{Sehr geehrte Frau Musterfrau, }

```

This is just some blindtext.

```

55 \blindtext[2]
56 \clearpage
57 \blindtext

```

Closing letter

```

58 \closing{Mit freundlichen Grüßen}

```



If you still have something to say/write.

```
59 \ps PS: \dots
```

Any amendment.

```
60 \encl{%
61   Anlage 1\\
62   Anlage 2%
63 }
```

This is the distribution

```
64 \cc{%
65   Verteiler 1\\
66   Verteiler 2%
67 }
```

That's it. Done.

```
68 \end{letter}
69 \end{document}
```

And how does a example letter looks like?

Example 2

```
1  \LoadLetterOption{HUBerlin-letter}
2  \setkomavar{myref}{}
3  \setkomavar{yourref}{}
4  \setkomavar{yourmail}{}
5  \setkomavar{customer}{}
6  \setkomavar{invoice}{}
7  \setkomavar{subject}{Betreff}
8  \usepackage{blindtext}
9  \begin{document}
10 \begin{letter}{%
11   Erika Musterfrau\\
12   Musterweg 43\\
13   56789 Musterhausen%
14 }
15 \opening{Sehr geehrte Frau Musterfrau,}
16 \blindtext[2]
17 \clearpage
18 \blindtext
19 \closing{Mit freundlichen Grüßen}
20 \ps PS: \dots
21 \encl{%
22   Anlage 1\\
23   Anlage 2%
24 }
25 \cc{%
26   Verteiler 1\\
27   Verteiler 2%
28 }
29 \end{letter}
30 \end{document}
31 %%
```

```
70 \end{letter}
```

### 3.3 Letter from markdown

71 `<{*letter-md}`

You need to have `pandoc` installed on your computer. To create letters via markdown and `pandoc` run from the command line:

Example 3

```
pandoc --pdf-engine=lualatex --template ·
↪HUBerlin-letter-template.latex -o <YOUR-FILE>.pdf <YOUR-
FILE>.md
```

The `.md` file needs a section with metadata.

It starts and ends with three `---`. All necessary metadata information are listed inbetween.

```
72 ---
73 documentclass: HUBerlin-letter
```

The following will load the `.lco`-file, you replace that with the name of your `.lco`-file.

```
74 senderdetails: HUBerlin-letter

75 opening: Sehr geehrte Damen und Herren
76 closing: Mit freundlichen Grüßen
77 date: 10. Mai 2010
```

The information for the sender has to be written like this:

```
78 addressee:
79 - Alexander von Humboldt
80 - Unter den Linden 6
81 - 10099 Berlin

82 ---
```

You find a list with possible options for this metadata information header below.

Now the content of your letter

```
83 Thank you very much for your letter.
```

Let's see how this example file looks like:

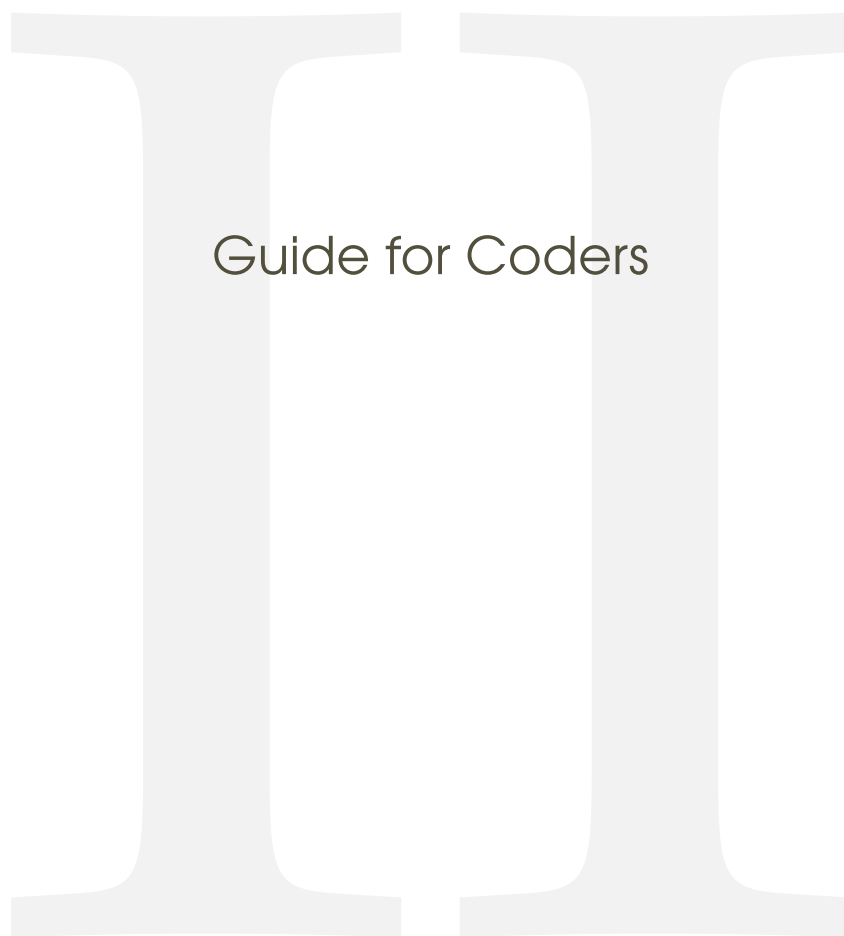
Example 4

```
1  ---
2  documentclass: HUBerlin-letter
3  senderdetails: HUBerlin-letter
4  opening: Sehr geehrte Damen und Herren
5  closing: Mit freundlichen Grüßen
6  date: 10. Mai 2010
7  addressee:
8  - Alexander von Humboldt
9  - Unter den Linden 6
10 - 10099 Berlin
11 ---
12 Thank you very much for your letter.
```

84 `</letter-md>`

Here we close the example files.

85  $\langle /example \rangle$



## Guide for Coders

```
1 < *cls >
```

## 4 Letter

```
2 < *letter >
```

We load **scrllttr2** [3] which is the documentclass for letters. Furthermore we set up some options.

```
3 \LoadClass[%
4   fontsize=10pt,
5   version=last,
```

If there is anything to debug, you can enable visualize

```
6   % visualize

7 ]{scrllttr2}
```

For debugging also uncomment the `\showfields{<fields>}` command.

```
8 % \showfields{head, address, location, reffline, foot}
```

Since we do want to compile with Lua<sup>1</sup>TeX, we make sure that it will be compilable only with that.

```
9 \RequirePackage{ifluatex, luatex85}
```

Now a fix.<sup>1</sup>

```
10 \ifx\directlua\relax
11   \let\directlua\UnDeFiNeD
12 \fi

13 \ifluatex
14 \else
15 \GenericError{HUBerlin}%
16 {Please use 'LuaLaTeX' as Compiler.^^J I abort here.}
17 \fi
```

We do not need many packages. The ones we need are loaded now.

```
18 \RequirePackage[english,ngerman]{babel}
```

Common package for handling figures is **graphicx** [8].

```
19 \RequirePackage{graphicx}
```

For loading fonts.

```
20 \RequirePackage{fontspec}
```

Verdana font as main font.

```
21 \setmainfont{Verdana}
```

For the wheelchair symbol we load **marvosym** [4]

```
22 \RequirePackage{marvosym}
```

To get the HU logo on the second and following pages we load **scrlayer-scrpage** [2].

```
23 \RequirePackage{scrlayer-scrpage}
```

<sup>1</sup> <https://tex.stackexchange.com/a/75065>

```

24 \DeclareNewLayer[
25   foreground,
26   textarea,
27   voffset=\useplength{firstheadvpos},
28   hoffset=\useplength{firstheadhpos},
29   width=\useplength{firstheadwidth},
30   mode=picture,
31   contents=\putUL{\raisebox{\dimexpr-\height}{\usekomavar{firsthead}}\hfill\thepage}
32 ]{\likefirstpage.head}
33 \AddLayersToPageStyle{scrheadings}{\likefirstpage.head}
34 \clearpaairofpagestyles

```

For better adjustments of the layout we load **geometry** [9].

```

35 \RequirePackage{geometry}
36 \geometry{%
37   a4paper
38   , left           =25mm
39   , bottom         =16mm
40   , foot           =4mm
41   , top            =77mm
42   , nohead
43   , textwidth      =117mm
44   , marginparsep   =0mm
45   , marginparwidth =0mm
46 }

```

Main Text and signature should be raggedright.

```

47 \renewcommand*{\raggedsignature}{\raggedright}
48 \raggedright

```

We also want to put the enclosures at the bottom of the page.<sup>2</sup>

```

49 \def\stopletter{}
50 \let\enclold\encl
51 \renewcommand\encl[1]{\vskipoptplusifilll\enclold{#1}}

```

We define new komavars.

First the possibility to name the faculty,

```

52 \newkomavar{faculty}
53 \newkomafont{faculty}{\bfseries\fontsize{8.5}{10}\selectfont}

```

then the institute

```

54 \newkomavar{institute}
55 \newkomafont{institute}{\fontsize{8.5}{10}\selectfont}

```

and further fields for information.

```

56 \newkomavar{institute.additional}

```

We pass the name of the head of the institute.

```

57 \newkomafont{institute.head}{\bfseries}
58 \newkomavar{institute.head}%

```

Its position will be written as the optional argument.

There is even the possibility to print the email-address onto the letter.

```

59 \newkomavar{institute.head.mail}%

```

<sup>2</sup> <https://tex.stackexchange.com/questions/77991/put-the-encl-at-the-bottom-of-the-page-lettre-cl>

Since there are many buildings with offices we tell where to find the sender

```
60 \newkomavar{local}
61 \setkomavar*{local}{Sitz:}
```

and how to get there.

```
62 \newkomavar{connections}
63 \setkomavar*{connections}{Verkehrsverbindungen:}
```

Furthermore we inform about office hours

```
64 \newkomavar{officehours}
65 \setkomavar*{officehours}{Sprechzeiten:}
```

and if there is accessibility for wheelchairs etc.

```
66 \newkomavar{accessibility}
67 \setkomavar*{accessibility}{{\large\reflectbox{\Wheelchair}} Eingang:}

68 \newkomavar{bank}
69 \setkomavar*{bank}{Bankverbindung:}
70 \setkomavar{bank}{Deutsche Bank PGK AG}
71 \newkomavar{IBAN}
72 \setkomavar{IBAN}{\mbox{IBAN DE95 1007 0848 0512 6206 01}}
73 \newkomavar{BIC}
74 \setkomavar{BIC}{BIC DEUTDEDB110}
```

Now we set the location field, which is the section on the right with additional information:

```
75 \setkomavar{location}{%}
```

First anything regarding the font

```
76 \raggedright
77 \fontsize{7}{8.5}\selectfont
78 % \begin{macrocode}
79 % and for the section of faculty, institute etc. we use \env{minipage}
80 % \begin{macrocode}
81 \begin{minipage}[t][64mm]{\useplength{locwidth}}
```

then the faculty

```
82 {\usekomafont{faculty}%
83 \usekomavar{faculty}\[1\baselineskip]}
```

and the institute.

```
84 {\usekomafont{institute}\usekomavar{institute}\[1\baselineskip]}
```

Now anything else regarding the institute.

```
85 \ifkomavareempty{institute.additional}
86 {}
87 {\usekomavar{institute.additional}\[1\baselineskip]}
```

What follows is the head of institute and its position name.

```
88 \ifkomavareempty{institute.head}
89 {}
90 {{\usekomafont{institute.head}%
91 \usekomavar{institute.head}}\%
92 \usekomavar*{institute.head}}
```

We close this section and the minipage.

```
93 \end{minipage}
```

Let's turn to further information.

For example date:

```
94 \textbf{\usekomavar*{date}}\
95 \usekomavar{date}\par
```

and the sender of the letter.

```
96 \ifkomavareempty{fromname}
97 {}
98 {\textbf{\usekomavar*{fromname}}\
99 \usekomavar{fromname}\par}
```

And the reference of correspondence.

```
100 \ifkomavareempty{myref}
101 {}
102 {\textbf{\usekomavar*{myref}}\
103 \usekomavar{myref}\par}
```

To complete this template we provide the possibility to name further reference fields.

```
104 \ifkomavareempty{yourref}
105 {}
106 {\textbf{\usekomavar*{yourref}}\
107 \usekomavar{yourref}\par}

108 \ifkomavareempty{yourmail}
109 {}
110 {\textbf{\usekomavar*{yourmail}}\
111 \usekomavar{yourmail}\par}

112 \ifkomavareempty{customer}
113 {}
114 {\textbf{\usekomavar*{customer}}\
115 \usekomavar{customer}\par}

116 \ifkomavareempty{invoice}
117 {}
118 {\textbf{\usekomavar*{invoice}}\
119 \usekomavar{invoice}\par}

120 \textbf{\usekomavar*{fromaddress}}\
121 \usekomavar{fromaddress}
122 \ifkomavareempty{fromphone}
123 {\par}
124 {\usekomavar*{fromphone}\usekomavar{fromphone}
125 \ifkomavareempty{fromfax}
126 {\par}
127 {\}}
128 \ifkomavareempty{fromfax}
129 {}
130 {\usekomavar*{fromfax}\usekomavar{fromfax}\par}
```

Next, emails and url:

```
131 \ifkomavareempty{institute.head.mail}
132 {}
133 {\usekomavar{institute.head.mail}
134 \ifkomavareempty{fromemail}
```



```

135  {\ifkomavareempty{fromurl}
136   {\par}
137   {\}}
138  {\}}

139  \ifkomavareempty{fromemail}
140   {}
141   {\usekomavar{fromemail}
142    \ifkomavareempty{fromurl}
143     {\par}
144     {\}}

145  \ifkomavareempty{fromurl}
146   {}
147   {\usekomavar{fromurl}\par}

```

Now the actual location of the sender

```

148  \ifkomavareempty{local}
149   {}
150   {\textbf{\usekomavar*{local}}\}
151   \usekomavar{local}\par}

```

The last information section should be pinned to the bottom.

```

152  \vfill

```

Inform your addressee about the connection possibilities.

```

153  \ifkomavareempty{connections}
154   {}
155   {\textbf{\usekomavar*{connections}}\}
156   \usekomavar{connections}\par}

157  \ifkomavareempty{officehours}
158   {}
159   {\textbf{\usekomavar*{officehours}}\}
160   \usekomavar{officehours}\par}

```

If there is a barrier free entrance, tell it.

```

161  \ifkomavareempty{accessibility}
162   {}
163   {\textbf{\usekomavar*{accessibility}}\}
164   \usekomavar{accessibility}\par}

```

And last the bank connection

```

165  \ifkomavareempty{bank}
166   {}
167   {\textbf{\usekomavar*{bank}}\}
168   \usekomavar{bank}\}
169   \usekomavar{IBAN}\}
170   \usekomavar{BIC}
171  }

```

Finally we close `\setkomavar{<location>}`

```

172  }

```

To fulfill the Corporate Design rules we adjust a few things.

```

173  \KOMAOptions{}

```

```

174   numericaldate =true
175   ,refline      =nodate
176   ,backaddress  =plain
177   ,parskip      =half-
178 }

```

Getting rid of the reference field

```
179 \removerefferds
```

Redefining length, which we ship to the end of the preamble.

```

180 \AtBeginDocument{
181 \setlength{refvpos}{110mm}
182 \setlength{refaftervskip}{opt}
183 \setlength{toaddrhpos}{25mm}
184 \setlength{firstheadhpos}{\uselength{toaddrhpos}}
185 \setlength{lochpos}{15mm}
186 \setlength{locvpos}{\uselength{toaddrvpos}}
187 \addtoplength{locvpos}{.75\baselineskip}
188 \setlength{locwidth}{45mm}
189 \setlength{locheight}{232mm}
190 }

```

Now resetting or pre-defining some variables.

First we set the head of the first page.



You need to have the logo of the HU stored on your computer!

```

191 \setkomavar{firsthead}{%
192 \includegraphics[width=148mm]{HUBerlin-logo.png}%
193 }

194 \setkomavar{backaddressseparator}{~\textbar~}

195 \setkomavar{fromphone}{0000}
196 \setkomavar*{fromphone}{Telefon +49 [30] 2093-}

197 \setkomavar{fromfax}{0000}
198 \setkomavar*{fromfax}{Telefax +49 [30] 2093-}

199 \setkomavar*{fromaddress}{Postanschrift:}
200 \setkomavar{fromaddress}{%
201   Humboldt-Universität zu Berlin\\
202   Unter den Linden 6\\
203   D-10099 Berlin}

204 \setkomavar*{date}{Datum:}

205 \setkomavar*{fromname}{Bearbeiter:}

206 \setkomavar*{myref}{Geschäftszeichen:}

207 \setkomavar*{enclseparator}{Anlage}

208 \setkomavar*{ccseparator}{Kopie an}

209 % \RequirePackage{hyperref}
210 % \AtBeginDocument{

```

```

211 % \usekomavar[\def\author]{fromname}
212 % \usekomavar[\def\subject]{subject}
213 % \hypersetup{%
214 %     pdftitle           = {\subject},
215 %     pdfauthor          = {\author},
216 %     pdfsubject         = {\subject},
217 %     pdfkeywords        = {\author, \subject},
218 %     pdflang            = de,
219 %     pdfdisplaydoctitle = true,
220 %     colorlinks         = true,
221 %     plainpages         = false,
222 %     hypertexnames      = false,
223 %     unicode,
224 % }
225 % }}

226 </letter>

227 </cls>

228 <*template>

```

## 5 Boilerplate / Template for letters

```

229 <*letter-md>

230 \documentclass{HUBerlin-letter}

```

We define two new variables.

```

231 \newkomavar{opening}
232 \newkomavar{closing}

233 $for(letteroption)$
234 \LoadLetterOption{$letteroption$}
235 $endfor$
236 $if(senderdetails)$\LoadLetterOption{$senderdetails$}$endif$
237 $if(addresseeimage)$\setkomavar{addresseeimage}{$addresseeimage$}$endif$
238 $if(backaddress)$\setkomavar{backaddress}{$backaddress$}\KOMAOPTIONS{backaddress=true}$endif$
239 $if(fromalign)$\KOMAOPTIONS{fromalign=$fromalign$}$endif$
240 $if(customer)$\setkomavar{customer}{$customer$}$endif$
241 $if(date)$\setkomavar{date}{$date$}$endif$
242 $if(fromaddress)$\setkomavar{fromaddress}{$fromaddress$}$endif$
243 $if(frombank)$\setkomavar{frombank}{$frombank$}$endif$
244 $if(fromemail)$\setkomavar{fromemail}{$fromemail$}\KOMAOPTIONS{fromemail=true}$endif$
245 $if(fromfax)$\setkomavar{fromfax}{$fromfax$}\KOMAOPTIONS{fromfax=true}$endif$
246 $if(fromlogo)$\setkomavar{fromlogo}{$fromlogo$}\KOMAOPTIONS{fromlogo=true}$endif$
247 $if(frommobilephone)$\setkomavar{frommobilephone}{$frommobilephone$}\KOMAOPTIONS{frommobilephone=true}$endif$
248 $if(fromname)$\setkomavar{fromname}{$fromname$}$endif$
249 $if(fromphone)$\setkomavar{fromphone}{$fromphone$}\KOMAOPTIONS{fromphone=true}$endif$

```

```

250 $if(fromurl)$\setkomavar{fromurl}{ $\$$ fromurl $\$$ }\KOMAOptions{fromurl=true}$endif$
251 $if(fromzipcode)$\setkomavar{fromzipcode}{ $\$$ fromzipcode $\$$ }$endif$
252 $if(invoice)$\setkomavar{invoice}{ $\$$ invoice $\$$ }$endif$
253 $if(location)$\setkomavar{location}{ $\$$ location $\$$ }$endif$
254 $if(myref)$\setkomavar{myref}{ $\$$ myref $\$$ }$endif$
255 $if(myrefname)$\setkomavar*{myref}{ $\$$ myrefname $\$$ }$endif$
256 $if(place)$\setkomavar{place}{ $\$$ place $\$$ }$endif$
257 $if(PPcode)$\setkomavar{PPcode}{ $\$$ PPcode $\$$ }$endif$
258 $if(signature)$\setkomavar{signature}{ $\$$ signature $\$$ }$endif$
259 $if(specialmail)$\setkomavar{specialmail}{ $\$$ specialmail $\$$ }$endif$
260 $if(subject)$\setkomavar{subject}{ $\$$ subject $\$$ }$endif$
261 $if(title)$\setkomavar{title}{ $\$$ title $\$$ }$endif$
262 $if(yourmail)$\setkomavar{yourmail}{ $\$$ yourmail $\$$ }$endif$
263 $if(yourref)$\setkomavar{yourref}{ $\$$ yourref $\$$ }$endif$
264 $if(opening)$\setkomavar{opening}{ $\$$ opening $\$$ }$endif$
265 $if(closing)$\setkomavar{closing}{ $\$$ closing $\$$ }$endif$
266 $if(firstfoot)$\setkomavar{firstfoot}{ $\$$ firstfoot $\$$ }$endif$

```

Ok, let's sum up the possible options you can use to pass data to the letter:

- addresseeimage
- backaddress
- customer
- date
- fromaddress
- frombank
- fromemail
- fromfax
- fromlogo
- frommobilephone
- fromname
- fromphone
- fromurl
- fromzipcode
- invoice
- location
- myref
- myrefname
- place
- PPcode
- signature
- specialmail
- subject
- title
- yourmail
- yourref
- opening
- closing
- firstfoot

Sometimes you might not have an addressee – we are checking this, too.

```

267 $if (addressee) $
268 $else$
269 \KOMAOptions{addrfield=false}
270 $endif$

```

Now the actual content of the letter

```

271 \begin{document}
272 \begin{letter}{%
273 $for (addressee) $
274 $addressee$$sep$\\
275 $endfor$
276 }
277 $for (include-before) $
278 $include-before$
279 $endfor$
280 \opening{\usekomavar{opening}}
281 $body$
282 \closing{\usekomavar{closing}}
283 $if (ps) $\ps{$ps$}$endif$
284 $if (encl) $\encl{$encl$}$endif$
285 $for (include-after) $$include-after$$endfor$
286 \end{letter}
287 \end{document}

288 \</letter-md>
289 \</template>

```

## 6 Documentation preamble <style>

```

290 \<*sty>
291 \<*style>
292 \makeatletter
293 \addtolength\marginparwidth{-40pt}
294 \addtolength\marginparsep{4mm}
295 \addtolength\oddsidemargin{-20pt}
296 \addtolength\evensidemargin{-20pt}
297 \let\PrintDescribeMacro=\@gobble
298 \let\PrintDescribeEnv=\@gobble
299 % \def\Describe@Macro#1{\endgroup
300 %      %\marginnote{\PrintDescribeMacro{#1}}%
301 %      \SpecialUsageIndex{#1}\@esphack\ignorespaces%
302 %      }
303 %\def\Describe@Env#1{\endgroup
304 %      %\marginnote{\PrintDescribeEnv{#1}}%
305 %      \SpecialEnvIndex{#1}\@esphack\ignorespaces%
306 %      }
307 \makeatother
308 \AtBeginDocument{\normalmarginpar}

```

```

309 \setlength\MacrocodeTopsep{.5\baselineskip}
310 \setlength\MacroIndent{6mm}
311
312
313 \RequirePackage{luatexbase}
314 \RequirePackage[ngerman,english]{babel}
315 \RequirePackage{calc}
316
317 \RequirePackage[
318   paper      = a4paper,    % - use A4 paper size
319   foot       = 2cm,
320   inner      = 3cm,    % - total body: left margin (odd pages)
321   top        = 3cm,    % - total body: top margin
322   outer      = 3cm,    % - total body: right margin (odd pages)
323   bottom     = 3cm,    % - total body: bottom margin
324   marginparwidth = 2cm,  % - width for side note
325   marginparsep = .5cm,  % - space between notes and body text (content)
326 % showframe,
327 ]{geometry}
328
329 \newlength\fullwidth
330 \setlength\fullwidth{\textwidth+\marginparwidth+\marginparsep}
331
332 \KOMAoptions{
333 numbers      = noenddot,
334 }
335 \AtBeginDocument{
336   \KOMAoptions{
337 % headwidth   = {\fullwidth},
338 % footwidth   = {\fullwidth},
339 footheight   = 20pt,
340 headheight   = 29pt,
341 captions     = tableheading,
342 }}
343
344
345
346 \title{\HUBerlintitle}
347 %\subtitle{\HUBerlinsubtitle}
348 \author{\HUBerlinauthor}
349 \date{\Version}
350
351
352 %---- Required Packages
353 \RequirePackage{ifluatex,luatex85}
354 \ifx\directlua\relax
355   \let\directlua\UnDeFiNeD
356 \fi
357 \ifluatex
358 \else
359 \GenericError{HUBerlin}%
360 {Please use 'LuaLaTeX' as Compiler.^^J I abort here.}
361 \fi

```

For fonts we load the package **fontspec** [7] which has almost no limits handling font-stuff.

```

362 \RequirePackage{fontspec}

363 \RequirePackage[mono=false]{libertine}
364 \RequirePackage{amssymb}
365
366 \defaultfontfeatures{%
367   Ligatures = TeX
368   , Scale    = MatchLowercase
369   , Numbers  = OldStyle
370 }
```

For fonts we use the available TeX Gyre Pagella as main font.<sup>1</sup>

```

371 \setmainfont[%
372   Ligatures = TeX
373   , Numbers  = OldStyle]{TeX Gyre Pagella}
```

And we declare also the other fonts, too.

```

374 \setmonofont[Scale=1]{TeX Gyre Cursor}
375 \setsansfont[%
376   , LetterSpace = .8]{TeX Gyre Adventor-Regular}
377 \linespread{1.05}

378 \newfontfamily\listingsfont[
379   Scale    = MatchLowercase,
380 ]{TeX Gyre Cursor}
381 \renewcommand\MacroFont{\listingsfont}
382
383 \RequirePackage{marginnote}
384 \renewcommand*{\marginfont}{%
385   \rule{opt}{0.7\baselineskip}%
386   \footnotesize%
387   \color{HUBerlin-brown}}
388
389 \RequirePackage[
390   german = guillemets,
391   style   = german,
392 ]{csquotes}
393
394 \RequirePackage{enumitem}
395 \setlist{
396   nosep,
397   % itemindent=1em,
398   % labelindent=0.5\parindent,
399   leftmargin=*}
400 \newlist{tabitemize}{itemize}{2}% neue Listenumgebung
401 \setlist{tabitemize}{%
402   nosep,
403   leftmargin=*
404 }
405 \setlist{tabitemize,1}{label=\labelitemi}
406 \setlist{tabitemize,2}{label=\labelitemii}
407
```

<sup>1</sup> <http://www.gust.org.pl/projects/e-foundry/tex-gyre>

```

408
409 \clubpenalty=10000 % prevent single lines at the beginning of a paragraph (Schuster)
410 \widowpenalty=10000 % prevent single lines at the end of a paragraph (Hurenkinder)
411 \displaywidowpenalty=10000 %
412
413 \RequirePackage{pdfpages}
414 \RequirePackage{biblatex}
415 \addbibresource{\jobname-bibliography.bib}
416 \addbibresource{\jobname-ctan.bib}
417 \RequirePackage{ccicons} %creative commons
418 \RequirePackage{xparse}
419 \RequirePackage{ragged2e}
420 \RequirePackage{microtype}
421 \RequirePackage{xspace}
422 \RequirePackage{graphicx}
423 \graphicspath{{img/}}

424 \RequirePackage{etoolbox}
425 %https://tex.stackexchange.com/a/235881/98739
426 \AfterEndPreamble{\maketitle}
427
428 % https://tex.stackexchange.com/a/401466/98739
429 \makeatletter
430 \renewcommand*{\maketitle}{%
431   % taken and shortened from /usr/share/texmf/tex/latex/koma-script/scrartcl.cls
432   \begin{titlepage}
433     \newgeometry{left=3cm,right=3cm,top=1.5cm,bottom=2cm}
434     \global\@topnum=\z@
435     \setparsizes{\z@}{\z@}{\z@\@plus 1fil}\par@updaterelative
436     \null
437     {\large\@author\hfill Guideline and Documentation\par}
438     \vskip 10em%
439     {\begin{center}\color{HUBerlin-blue}
440 {\fontsize{50}{55}\selectfont\HUBerlinshort{} \par\vskip .5em%
441 \Large\sffamily\@title}\par
442 \vskip .5em
443 \end{center}}}%
444 {\ifx\@subtitle\@empty\else\usekomafont{subtitle}\@subtitle\par\fi}%
445 \null\vskip 5em%
446 \blockcquote[195]{Hoare1973}{Documentation must be regarded as an integral part of
447 A good programming language will encourage and assist the programmer to write clear
448 self-documenting code,
449 and even perhaps to develop
450 and display a pleasant style
451 of writing.}
452 \null\vfill
453 {\usekomafont{subtitle}{\@date \hfill
454 \includegraphics[width=4cm]{texografie}\}\}%
455 \par
456 \vskip 0em
457 \restoregeometry
458 \end{titlepage}
459 }%

```



```

460 \makeatother
461
462 \RequirePackage{xcolor}
463 \definecolor{HUBerlin-blue}{RGB}{0,65,137} % HEX 004189
464 \definecolor{HUBerlin-green}{RGB}{150,190,20} % HEX 93C11A % Topoi
465 \definecolor{HUBerlin-grey}{RGB}{169,169,169}
466 \definecolor{HUBerlin-brown}{RGB}{82,79,60}
467 \definecolor{HUBerlin-red}{RGB}{180,0,0}
468
469
470 \RequirePackage{dirtree}
471 \renewcommand*{DTstylecomment}{%
472   \color{HUBerlin-grey}%
473   \footnotesize%
474   \sffamily}
475 \renewcommand*{DTstyle}{%
476   \ttfamily%
477   \small%
478 }
479
480 \RequirePackage[
481   markcase      = noupper,
482   footsepline   = .5pt,
483   % headsepline = .5pt,
484   autooneside   = false,% use left and right marks with a onesided document
485   automark,% set \leftmark and \rightmark automatically by *\section and \subsection
486   draft         = false,
487 ]{scrlayer-scrpage}
488
489 \pagestyle{scrheadings}
490 \clearscrheadfoot
491 \rofoot*{\thepage}
492 \lofoot*{\textcolor{HUBerlin-blue}{\HUBerlintitle}\ \vrule\ \textcolor{HUBerlin-
493   brown}{\HUBerlinsubtitle}}
494 \rohead*{HUBerlin-bundle}
495 \lohead*{Version: \Version}
496
497 % https://tex.stackexchange.com/a/352925/98739
498 \newcommand*{\partnumber{}}
499 \DeclareNewLayer[
500   background,
501   textarea,
502   addwidth=\marginparsep+\marginparwidth,
503   mode=picture,
504   contents={%
505     \putC{\makebox[opt][c]{\raisebox{-.5\height}{\scalebox{50}{\textcolor{black!5}{\part
506     }
507   }}{\partnumber}
508 \DeclareNewPageStyleByLayers{part}{\partnumber}
509 \renewcommand\partpagestyle{part}
510 \renewcommand*{\partformat}{\gdef\partnumber{\thepart}}
511
512 % only a dirty workaround for the part title

```

```

511 \newcommand*\changedpartwidth[1]{%
512   \makebox[\linewidth][l]{%
513     \parbox{\dimexpr\textwidth+\marginparsep+\marginparwidth\relax}{\raggedpart#1}%
514   }%
515 }
516 % add \changedpartwidth as last command to the settings for font element part
517 \addtokomafont{part}{\Huge\changedpartwidth}
518
519
520
521 %-https://tex.stackexchange.com/a/339516/98739 | https://tex.stackexchange.com/a/9
522 % footnotes in the footer:
523 \deffootnote%
524   %[\normalparindent]%<width of mark>
525   {0.0cm}%<indent of footnote text>
526   {\normalparindent}%<paragraph indent in the footnote text>
527   {\makebox[\normalparindent][r]%
528     {\thefootnotemark\hspace*{3pt}}}%<definition of mark>
529 \newlength{\normalparindent}
530 \AtBeginDocument{\setlength{\normalparindent}{\parindent}}
531 \setfootnoterule{opt}% Kein Fußnotenstrich
532 %\setfootnoterule[<height>]{<length>}
533

```

This will put the numbers of the chapters and sections into the margin.

```

534 \renewcommand\sectionlinesformat[4]{%
535   \makebox[opt][r]{#3}#4%
536 }
537 \RequirePackage{url}
538 % \urlstyle{same}
539
540 \setkomafont{title}{\sffamily\color{HUBerlin-blue}\flushleft\bfseries}
541 \setkomafont{disposition}{\color{HUBerlin-brown}\sffamily\bfseries\large}
542 \setkomafont{section}{\usekomafont{disposition}}
543 \setkomafont{subsection}{\usekomafont{disposition}}
544 \setkomafont{subsubsection}{\usekomafont{disposition}}
545 % \setkomafont{paragraph}{\bfseries}
546 % \setkomafont{subsubsection}{\sffamilybold}
547 \setkomafont{subtitle}{\large\color{HUBerlin-brown}\sffamily\flushleft}
548 \setkomafont{pageheadfoot}{\footnotesize\sffamily\color{HUBerlin-grey}}
549 \setkomafont{descriptionlabel}{\bfseries}
550 \setkomafont{footnotelabel}{\bfseries}
551 \addtokomafont{titlehead}{\flushright}
552 % \setkomafont{headsepline}{\color{HUBerlin-blue}}
553 %\setkomafont{marginnote}{\MakeUppercase\color{HUBerlin-brown}}
554 \addtokomafont{caption}{\scriptsize}
555 \setkomafont{captionlabel}{\bfseries\sffamily}
556 \setkomafont{subject}{\bfseries\sffamily}
557 \setcapindent{opt}
558
559 \raggedbottom
560
561 \RequirePackage{listings}

```

```

562 \PassOptionsToPackage{final}{listings}
563 \RequirePackage[%
564     skins
565     ,listings
566     ,breakable
567     ,xparse
568     ,documentation
569 ]{tcolorbox}
570 \lstMakeShortInline[language=TeX,basicstyle=\ttfamily]|

```

Following we load **hyperxmp** [6] and **hyperref** [5] for PDF-meta data and interactive linked text.

```

571 \RequirePackage{hyperxmp}
572 \RequirePackage{hyperref}
573 \hypersetup{% setup the hyperref-package options
574     unicode      = true,
575     pdfauthor     = {HUBerlin}, % - author (PDF meta)
576     pdfauthortitle = {},
577     pdfcopyright  = {Copyright (c) \the\year . All rights reserved.},
578     pdfhighlight  = /N,
579     pdfdisplaydoctitle = true,
580     pdfdate       = {\today},
581     pdflang       = {},%de en
582     pdfcaptionwriter = {Lukas C. Bossert},
583     pdfkeywords    = {HUBerlin},
584     pdfencoding    = auto,
585     pdfproducer    = {HUBerlin with LuaLaTeX},
586     bookmarksnumbered = true,
587     bookmarksopenlevel = 2,
588     bookmarksopen  = true,
589     bookmarksdepth = 3,
590     colorlinks     = true, %Colours links instead of ugly boxes
591     urlcolor       = HUBerlin-blue, %Colour for external hyperlinks
592     linkcolor      = black, %Colour of internal links
593     citecolor      = black, %Colour of citations
594     linktoc        = page,
595     pdfborder      = {0 0 0},
596     breaklinks     = true, %allow line break inside links
597     final
598 }
599 \RequirePackage{bookmark}
600
601 \RequirePackage[
602     sort,
603     nameinlink,
604     compress,
605     ngerman,english
606 ]{cleveref}
607
608
609 %---- newcommands
610 \newcommand{\TeXografie}{Lukas C. Bossert
611     (www.TeXografie.de) }
612 \newcommand\HUBerlin{\HUBerlintitle\xspace}

```

```

613
614
615 \newcommand\HUBerlinFolder{%
616   \beginngroup%
617   \normalfont%
618   \color{HUBerlin-blue}%
619   % \faFolderOpen% taken from fontawesome
620   \hspace{.3em}%
621   \endgroup}
622
623
624
625 \RedeclareSectionCommands[
626   tocraggedpagenumber,
627   toclinefill=\tocpageseparator,
628   tocindent=oem,
629   tocnumwidth=4em,
630   tocpagenumberbox=\tocpagenumberbox% <- added
631 %   tocpagenumberformat=\textsf,
632 ]{chapter, section, subsection, subsubsection, paragraph}
633
634 \newcommand\tocgobble[1]{}% <- added
635 \newcommand\tocpageseparator{\footnotesize\, \mbox{---}\, }
636 \newcommand\tocpagenumberbox[1]{\mbox{#1}}% <- added
637 \KOMAoptions{toc=indentunnumbered}
638
639 \RedeclareSectionCommand[
640 %   tocbeforeskip=1.25em plus 1pt
641   ,tocentryformat=\large\scshape%
642   ,tocindent=oem
643   ,tocnumwidth=4em
644   ,tocpagenumberbox=\tocgobble% <- added
645 ]{part}
646 %\addtokomafont{partentry}{\scshape\sffamily\bfseries}
647
648 \RedeclareSectionCommand[%
649 %   ,beforeskip=1.15em plus 1pt%
650 ,tocentryformat=\textbf%
651 %   ,toclinefill={\TOCLineLeaderFill}%\TOCLineLeaderFill[\textbf{.}]
652 ]{chapter}
653
654
655
656
657 \newtcolorbox{example}[1][]{
658   breakable,
659   top=5pt,
660   bottom=5pt,
661   colback=HUBerlin-blue!10,
662   colframe=HUBerlin-blue,
663   left=5pt,
664   right=5pt,
665   sharp corners,

```

```

666 boxrule=opt,
667 bottomrule=2pt,
668 toprule=2pt,
669 enhanced jigsaw,
670 lefttitle=opt,
671 coltitle=white,
672 fonttitle=\bfseries,
673 fontupper=\small,%\ttfamily,
674 % colbacktitle=HUBerlin-blue!20
675 #1,
676 }
677
678 % Replace the squat-u symbol for spaces
679 % https://tex.stackexchange.com/a/488123/98739
680 \makeatletter
681 \def\lst@visiblespace{\lst@ttfamily{\char32}$\textcolor{HUBerlin-grey}{\cdot}$}
682 \makeatother
683
684
685 \lstset{%
686   basicstyle = \linespread{0.7}\listingsfont
687   ,breaklines = true
688   ,breakatwhitespace
689   ,alsoletter=\\{\}\*\[/\]\-
690   ,showstringspaces=true
691 }
692
693 \lstdefinestyle{HUBerlinlistingstyledef}{%
694   tabsize      = 4,
695   breaklines   = true,
696   breakatwhitespace = true,
697   postbreak=\mbox{$\hookrightarrow$},
698   %keepspaces  = true,
699   escapeinside = {(*@}{@*)},
700   moredelim    = {[is][\ttfamily\bfseries\color{HUBerlin-blue}]{|}{|}},
701   moredelim    = {[is][\ttfamily\bfseries\color{HUBerlin-blue}]{|_}{|_}},
702   moredelim    = {[is][\ttfamily\bfseries\color{HUBerlin-red}]{|_}{|_}},
703   aboveskip=opt,
704   belowskip=opt,
705   captionpos=b,
706   resetmargins=true,
707   sensitive=true,
708   upquote=true,
709   showspaces=true,
710   showtabs=true,
711   tab=\textcolor{HUBerlin-grey}{\rightarrowfill},
712   %numbers=left,
713   %numberstyle=\footnotesize\ttfamily\color{HUBerlin-grey},
714   comment      = [l]{\%},
715   commentstyle = \footnotesize\color{HUBerlin-grey}\addfontfeature{LetterSpace=.7},
716   % deletecomment = [l]{\%<}
717   % morecomment  = [l][\nullfont]{\%<},
718   % deletecomment = [is]{\%<}{>},

```

```

719 }
720
721 \lstdefinestyle{HUBerlinlistingstyle}{%
722   language = {TeX},
723   style     = {HUBerlinlistingstyledef},
724 }
725
726
727
728
729
730
731 \tcbset{%
732 HUBerlinstyle/.style={%
733   enhanced,
734   before skip=2mm,
735   after skip=3mm,
736   boxrule=0.7pt,
737   left=2mm,
738   right=2mm,
739   top=2mm,
740   bottom=2mm,
741   sharp corners,
742   colback=white,
743   colbacklower=white,
744   % fonttitle=\sffamily\bfseries,
745   breakable,
746   %before skip=\baselineskip,
747   coltitle=white,
748   colbacktitle=HUBerlin-blue!50!black,
749   fonttitle=\bfseries\sffamily\footnotesize,
750   % before upper={\mynote{\thetcbcounter}},
751   title={\hfill{Example \thetcbcounter}},
752 },
753 codecomment/.style={%
754   listing outside comment,%
755   boxrule=opt,
756   colback=white,
757 }
758 }
759
760 \newtcolorbox{warning}[1][]{
761   enhanced,
762   before skip=2mm,
763   after skip=3mm,
764   boxrule=0.7pt,
765   left=5mm,
766   right=2mm,
767   top=2mm,
768   bottom=2mm,
769   colback=white,
770   colframe=yellow!20!black,
771   sharp corners,

```

```

772   rounded corners=southeast,
773   arc is angular,
774   arc=3mm,
775   underlay={%
776 \path[fill=HUBerlin-grey!80!black] ([yshift=3mm]interior.south east)--
      ++(-0.4,-0.1)--++(0.1,-0.2);
777 \path[draw=HUBerlin-grey,shorten <=-0.05mm,shorten >=-0.05mm] ([yshift=3mm]interior
      ++(-0.4,-0.1)--++(0.1,-0.2);
778 \path[fill=red!50!black,draw=none] (interior.south west) rectangle node[white]{\Huge
779 },
780   drop fuzzy shadow,
781   #1
782 }
783
784 \newtcblisting[%
785   auto counter,
786   crefname   = {example}{examples},
787   Crefname    = {Example}{Examples},
788 ]{codetext}[2][]{%
789   HUBerlinstyle,
790 %   side text,
791   rounded corners=northeast,
792   arc=6mm,
793   listing style=HUBerlinlistingstyle,
794   label = #2,
795   #1,
796 }
797
798 \newtcblisting[%
799   use counter from=codetext,
800   crefname={code example}{code examples},
801   Crefname={Code example}{Code examples}%
802 ]{code}[2][]{%
803   HUBerlinstyle,
804   rounded corners=southeast,
805   arc=6mm,
806   listing only,
807   listing style=HUBerlinlistingstyle,
808   label = #2,
809   #1,
810 }
811
812
813 \DeclareTCBInputListing[%
814   use counter from=codetext,
815   crefname={code example}{code examples},
816   Crefname={Code example}{Code examples}%
817 ]{\HUBerlinlisting}{O{}m}{%
818   HUBerlinstyle,
819   listing file={#2},
820   listing only,
821   listing style=HUBerlinlistingstyle,
822   #1,

```

```

823 }
824
825 \makeatletter
826 \newrobustcmd*{\fnurl}[1][\hyper@normalise\ltd@fnurl{#1}]
827 \def\ltd@fnurl#1#2{\footnote{#1\hyper@linkurl{\Hurl{#2}}{#2}}}
828 \makeatother

```

The first command is used to reference packages with: `\pkg{<package name>}`.<sup>2</sup> The name of the package is linked to its entry on CTAN and referenced to the bibliography in the end of this documentation.

```

829 \RequirePackage{newfile}
830 \newoutputstream{pkglist}

831 \NewDocumentCommand{\pkg}{om}{%
832   \IfNoValueTF{#1}
833   {\lowercase{\href{http://www.ctan.org/pkg/#2}}{\textbf{#2}}}
834   {\lowercase{\href{http://www.ctan.org/pkg/#1-#2}}{\textbf{#2}}}%
835   \space\cite{#2}%
836   \addtostream{pkglist}{#2}}

837 \newrobustcmd*{\lit}[1]{\textsf{#1}}
838 \newrobustcmd*{\Code}[1]{\texttt{#1}}
839 \newrobustcmd*{\tex}{\TeX}
840 \newrobustcmd*{\etex}{\mbox{e-TeX}}
841 \newrobustcmd*{\pdftex}{pdf-\tex}
842 \newrobustcmd*{\xetex}{Xe-\tex}
843 \newrobustcmd*{\luatex}{Lua-\tex}
844 \newrobustcmd*{\latex}{\LaTeX}%{La\kern-0.07em TeX}
845 \newrobustcmd*{\pdflatex}{pdf-\latex}
846 \newrobustcmd*{\xelatex}{Xe-\latex}
847 \newrobustcmd*{\lualatex}{Lua-\latex}
848 \newrobustcmd*{\miktex}{Mik-\tex}
849 \newrobustcmd*{\texlive}{\tex~live}
850 \newrobustcmd*{\bibtex}{Bib\kern-0.07em TeX}
851 \newrobustcmd*{\lppl}{\latex{} Project Public License}
852 \newrobustcmd*{\pdf}{PDF}
853 \newrobustcmd*{\md}{Markdown}
854 \newrobustcmd*{\utf}{\mbox{UTF-8}}
855 % no \mbox here, we may have to break things
856 \newrobustcmd*{\bibfield}[1]{\Code{#1}}
857 \newrobustcmd*{\opt}[1]{\Code{#1}}
858 \newrobustcmd*{\bibmacro}[1]{\Code{#1}}
859 \newrobustcmd*{\bibtype}[1]{\Code{@#1}}
860 %\renewrobustcmd*{\cmd}[1]{\Code{\textbackslash #1}}
861 \renewrobustcmd\meta[1]{\normalfont\texttriangle{\itshape#1\!/}\texttriangle}}
862
863 % directly taken from ltxdoc.dtx
864 \renewrobustcmd\marg[1]{%
865   {\ttfamily\textcolor{HUBerlin-red}{\{ \}}}%
866   \meta{#1}%
867   {\ttfamily\textcolor{HUBerlin-red}{\{ \}}}%
868 }

```

<sup>2</sup> Do not forget to insert the name of the package into the makefile in the definition of PKG.



```

869
870 \renewrobustcmd\oarg[1]{%
871   {\ttfamily\textcolor{HUBerlin-green}{[]}}%
872   \meta{#1}}%
873   {\ttfamily\textcolor{HUBerlin-green}{[]}}%
874 }
875
876 % adapted from listings.dtx (lstdoc.sty)
877 \renewrobustcmd\cmd[1]{%
878   \texttt{\color{HUBerlin-blue}\textbackslash\string#1}\xspace%
879 }
880
881 \newrobustcmd\env[2][ ]{%
882   \texttt{%
883     \color{HUBerlin-blue}%
884     \textbackslash begin\{\string#2\}\#1}%
885     \ldots
886     \texttt{%
887       \color{HUBerlin-blue}%
888       \textbackslash end\{\string#2\}}%
889     \xspace}

```

For a common layout of the parameter style to identify code of the different documents, files and packages we use `\param{(name of the parameter)}`.

```

890 \newcommand\param[1]{%
891   \begingroup%
892   \normalfont%
893   \ttfamily%
894   \bfseries%
895   \textless%
896   #1%
897   \ttfamily%
898   \bfseries%
899   \textgreater%
900   \endgroup}

901 \pdfstringdefDisableCommands{%
902   \def\lstinline#1{<#1>}
903   \def\tex{TeX}%
904   \def\etex{e-TeX}%
905   \def\xetex{XeTeX}%
906   \def\latex{LaTeX}%
907   \def\xelatex{XeLaTeX}%
908   \def\bibtex{BibTeX}%
909   \def\lppl{LaTeX Project Public License}%
910   \def\pdf{PDF}%
911   \def\utf{UTF-8}%
912   \def\{\}%
913   \def\texttt#1{<#1>}%
914   \def\marg#1{\{\#1\}}%
915   \def\oarg#1{[\#1]}%
916   \def\color#1#2{}%
917   \def\env#1{<#1>}
918   \def\cmd#1{\#1}

```

```

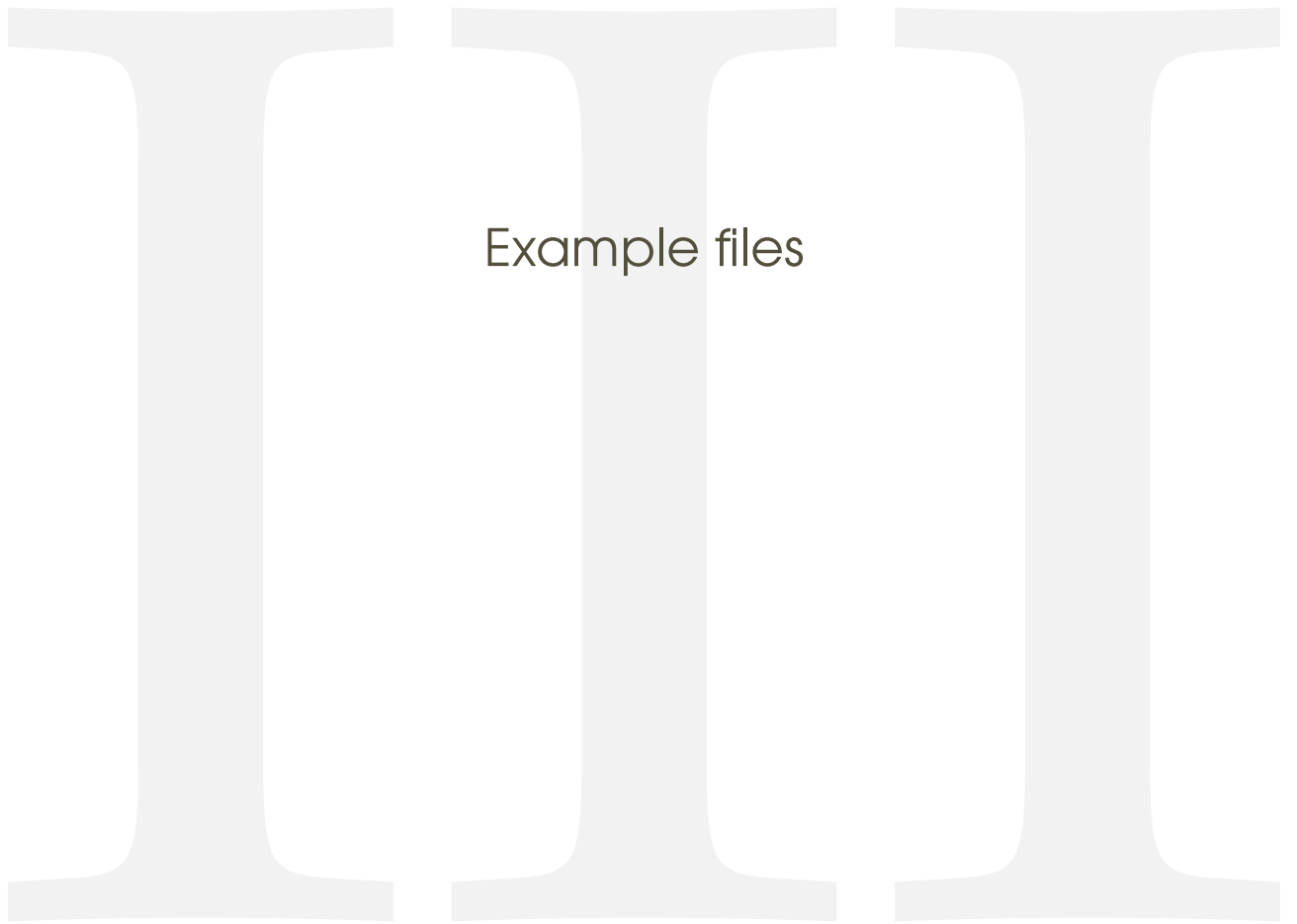
919 }
920 % https://tex.stackexchange.com/a/24067/98739
921 \makeatletter
922 \patchcmd{\scr@startchapter}{\if@openright\cleardoublepage\else\clearpage\fi}{}{}{}
923 \makeatother
924 %
925 \RequirePackage[tightLists=false]{markdown}
926 \markdownSetup{rendererPrototypes={%
927 link = {\href{#3}{#1}}}%
928 }}
929 \</style>

930 \</sty>

```

## Bibliography

- [1] Charles Antony Richard Hoare. »Hints on programming language design«. In: *Computer Systems Reliability*. Ed. by C. Bunyan. State of the Art Report 20. 1973, pp. 193–216. URL: <http://flint.cs.yale.edu/cs428/doc/HintsPL.pdf> (visited on 09/06/2018).
- [2] Markus Kohm. *The Scrlayer-scrpage package. Define and manage page styles*. Version 3.26b. Feb. 1, 2019. URL: <http://www.komascript.de/> (visited on 06/06/2019).
- [3] Markus Kohm. *The Scrlltr2 package. Koma-Script 'letter' class*. Version 3.26b. Feb. 1, 2019. URL: <http://www.komascript.de/> (visited on 06/06/2019).
- [4] Mojca Miklavac, Martin Vogel, and Thomas Henlich. *The Marvosym package. Martin Vogel's Symbols (marvosym) font*. Version 2.2a. URL: <http://www.marvosym.de> (visited on 06/06/2019).
- [5] Heiko Oberdiek and Sebastian Rahtz. *The Hyperref package. Extensive support for hypertext in LaTeX*. Version 6.88e. Nov. 30, 2018. URL: <https://github.com/ho-tex/hyperref> (visited on 06/06/2019).
- [6] Scott Pakin. *The Hyperxmp package. Embed XMP metadata within a LaTeX document*. Version 4.1. URL: <http://www.ctan.org/pkg/hyperxmp> (visited on 06/06/2019).
- [7] Will Robertson. *The Fontspec package. Advanced font selection in XeLaTeX and LuaLaTeX*. Version 2.7c. URL: <http://www.ctan.org/pkg/fontspec> (visited on 06/06/2019).
- [8] The LaTeX Team and David Carlisle. *The Graphicx package. Enhanced support for graphics*. Version 1.1a. June 1, 2017. URL: <http://www.ctan.org/pkg/graphicx> (visited on 06/06/2019).
- [9] Hideo Umeki and David Carlisle. *The Geometry package. Flexible and complete interface to document dimensions*. Version 5.8. URL: <http://www.ctan.org/pkg/geometry> (visited on 06/06/2019).

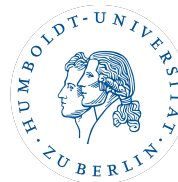


Example files

## 7 Letter

### 7.1 From **.tex**

## HUMBOLDT-UNIVERSITÄT ZU BERLIN



HU Berlin | Unter den Linden 6 | D-10099 Berlin

Erika Musterfrau  
Musterweg 43  
56789 Musterhausen

**Philosophische Fakultät**

Institut für Briefvorlagen

Here you can more text.

**Prof. Dr. Maike Musterfrau**  
Dekan

**Betreff**

Sehr geehrte Frau Musterfrau,

Dies hier ist ein Blindtext zum Testen von Textausgaben. Wer diesen Text liest, ist selbst schuld. Der Text gibt lediglich den Grauwert der Schrift an. Ist das wirklich so? Ist es gleichgültig, ob ich schreibe: „Dies ist ein Blindtext“ oder „Huardest gefburn“? Kjift – mitnichten! Ein Blindtext bietet mir wichtige Informationen. An ihm messe ich die Lesbarkeit einer Schrift, ihre Anmutung, wie harmonisch die Figuren zueinander stehen und prüfe, wie breit oder schmal sie läuft. Ein Blindtext sollte möglichst viele verschiedene Buchstaben enthalten und in der Originalsprache gesetzt sein. Er muss keinen Sinn ergeben, sollte aber lesbar sein. Fremdsprachige Texte wie „Lorem ipsum“ dienen nicht dem eigentlichen Zweck, da sie eine falsche Anmutung vermitteln. Dies hier ist ein Blindtext zum Testen von Textausgaben. Wer diesen Text liest, ist selbst schuld. Der Text gibt lediglich den Grauwert der Schrift an. Ist das wirklich so? Ist es gleichgültig, ob ich schreibe: „Dies ist ein Blindtext“ oder „Huardest gefburn“? Kjift – mitnichten! Ein Blindtext bietet mir wichtige Informationen. An ihm messe ich die Lesbarkeit einer Schrift, ihre Anmutung, wie harmonisch die Figuren zueinander stehen und prüfe, wie breit oder schmal sie läuft. Ein Blindtext sollte möglichst viele verschiedene Buchstaben enthalten und in der Originalsprache gesetzt sein. Er muss keinen Sinn ergeben, sollte aber lesbar sein. Fremdsprachige Texte wie „Lorem ipsum“ dienen nicht dem eigentlichen Zweck, da sie eine falsche Anmutung vermitteln.

**Datum:**  
6. 6. 2019

**Wissenschaftlicher Mitarbeiter**  
Dr. Max Mustermann

**Postanschrift:**  
Humboldt-Universität zu Berlin  
Unter den Linden 6  
D-10099 Berlin  
Telefon +49 [30] 2093-1234  
Telefax +49 [30] 2093-5678

maike.musterfrau@hu-berlin.de  
max.mustermann@hu-berlin.de  
www.hu-berlin.de

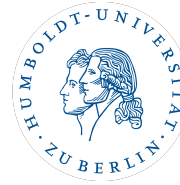
**Sitz:**  
Mohrenstraße 40/41  
Zimmer X  
D-10117 Berlin

**Verkehrsverbindungen:**  
U Bahnhof Hausvogteiplatz (U2)

**Eingang:**  
Hausvogteiplatz

**Bankverbindung:**  
Deutsche Bank PGK AG  
IBAN DE95 1007 0848 0512 6206 01  
BIC DEUTDE33HAN

## HUMBOLDT-UNIVERSITÄT ZU BERLIN



Dies hier ist ein Blindtext zum Testen von Textausgaben. Wer diesen Text liest, ist selbst schuld. Der Text gibt lediglich den Grauwert der Schrift an. Ist das wirklich so? Ist es gleichgültig, ob ich schreibe: „Dies ist ein Blindtext“ oder „Huardest gefburn“? Kjift – mitnichten! Ein Blindtext bietet mir wichtige Informationen. An ihm messe ich die Lesbarkeit einer Schrift, ihre Anmutung, wie harmonisch die Figuren zueinander stehen und prüfe, wie breit oder schmal sie läuft. Ein Blindtext sollte möglichst viele verschiedene Buchstaben enthalten und in der Originalsprache gesetzt sein. Er muss keinen Sinn ergeben, sollte aber lesbar sein. Fremdsprachige Texte wie „Lorem ipsum“ dienen nicht dem eigentlichen Zweck, da sie eine falsche Anmutung vermitteln.

Mit freundlichen Grüßen

Prof. Dr. Maike Musterfrau – Dr. Max Mustermann

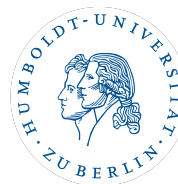
PS: ...

Anlage: Anlage 1  
Anlage 2

Kopie an: Verteiler 1  
Verteiler 2

## 7.2 From **.md**

## HUMBOLDT-UNIVERSITÄT ZU BERLIN



HU Berlin | Unter den Linden 6 | D-10099 Berlin

Alexander von Humboldt  
Unter den Linden 6  
10099 Berlin

**Philosophische Fakultät**

Institut für Briefvorlagen

Here you can more text.

**Prof. Dr. Maike Musterfrau**  
Dekan

Sehr geehrte Damen und Herren

Thank you very much for your letter.

Mit freundlichen Grüßen

Prof. Dr. Maike Musterfrau – Dr. Max Mustermann

**Datum:**

10. Mai 2010

**Wissenschaftlicher Mitarbeiter**

Dr. Max Mustermann

**Postanschrift:**

Humboldt-Universität zu Berlin  
Unter den Linden 6  
D-10099 Berlin  
Telefon +49 [30] 2093-1234  
Telefax +49 [30] 2093-5678

maike.musterfrau@hu-berlin.de  
max.mustermann@hu-berlin.de  
www.hu-berlin.de

**Sitz:**

Mohrenstraße 40/41  
Zimmer X  
D-10117 Berlin

**Verkehrsverbindungen:**

U Bahnhof Hausvogteiplatz (U2)

**Eingang:**

Hausvogteiplatz

**Bankverbindung:**

Deutsche Bank PGK AG  
IBAN DE95 1007 0848 0512 6206 01  
BIC DEUTDEB110