# hu-berlin-bundle

Documents and Documentations for LATEX at the Humboldt-Universität zu Berlin (unofficial)

»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.« [2, p. 195]



Version: 2019/06/21 V1.0.2 hu-berlin-bundle

### Contents

7.2

```
Introduction — 3
1
        Installation of the bundle −3
1.1
        Changelog—3
1.2
        v1.0.2 (2019-06-22)-3
1.2.1
        v1.0.1 (2019-06-21)—3
1.2.2
        v1.0.0 (2019-06-21)—3
1.2.3
        Copyright—4
1.3
        Boilerplate / markdown-template—4
1.3.1
        Preambel _ 5
2
Ι
        Guideline for Users
        Letter-7
3
        .lco-file-7
3.1
        .tex-file-9
3.2
        Letter from markdown—10
3.3
II
        Guide for Coders
4
        Letter—13
        Boilerplate / Template for letters—19
5
        Documentation preamble <style>-21
6
Ш
        Example files
        Letter—37
7
7.1
        From .tex-37
        From .md-40
```

### 1 Introduction

With this (unofficial) bundle you have several documents which are designed according to the corporate design of the Humboldt-Universität zu Berlin.

Following documents or documentclasses are available:

• letter (hu-berlin-letter.cls); via .tex and .md

#### 1.1 Installation of the bundle

hu-berlin 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 hu-berlin-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/hu-berlin-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.

1.2.1 V1.0.2 (2019-06-22)

Renaming files for CTAN compatability.

1.2.2 V1.0.1 (2019-06-21)

Internal changes for publishing. Still one documentclass for a letter.

1.2.3 V1.0.0 (2019-06-21)

First release with a documentclass for letter.

#### 1.3 Copyright

Various parts of this bundle have different copyrights. If not otherwise stated the copyright is The LaTeX project public license (LPPL), version 1.3c

#### 1.3.1 Boilerplate / markdown-template

POSSIBILITY OF SUCH DAMAGE.

The template for the markdown conversion, forked from the pandoc-templates and JensErat pandoc-scrlttr2 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

### 2 Preambel

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.

```
      hu-berlin-bundle
      code and documentation

      hu-berlin-bundle.pdf
      documentation

      hu-berlin-letter.tex
      letter

      hu-berlin-letter.lco
      datafile for letter

      hu-berlin-letter.pdf
      letter

      hu-berlin-letter-template.latex
      template for conversion

      hu-berlin-letter-markdown.pdf
      converted letter from markdown file

      img
      folder for images

      texografie-logo.png
      logo of maintainer

      hu-berlin-logo.jpg
      logo of HU

      makefile
      makefile to generate all required files

      README.md
      README file with information on installation
```

Figure 2.1: Structure of hu-berlin bundle

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

Guideline for Users

```
1 (*example)
```

### 3 Letter

19 }

We give an example on how to create a letter.

```
3.1 .1co-file
     2 (*ICO)
   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{hu-berlin-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}{%
        \mbox{Institut für Briefvorlagen}
```

Version: 2019/06/21 V1.0.2

```
Example 1
   \ProvidesFile{hu-berlin-letter.lco}
   \setkomavar{fromname}
   [Wissenschaftlicher Mitarbeiter]
   {Dr. Max Mustermann}
   \setkomavar{fromemail} {max.mustermann@hu-berlin.de}
   \setkomavar{fromphone} {1234}
   \setkomavar{fromfax}{5678}
   \setkomavar{fromurl} {www.hu-berlin.de}
   \setkomavar{backaddress}{HU Berlin\\
   Unter den Linden 6\\
   D-10099 Berlin}
11
   \setkomavar{faculty}{%
   Philosophische Fakultät
   \setkomavar{institute}{%
     \mbox{Institut für Briefvorlagen}
17
   \setkomavar{institute.additional}{Here you can add more
     text.}
   \setkomavar{institute.head} [Dekanin] {Prof. Dr. Maike
      Musterfrau}
   \setkomavar{institute.head.mail}{maike.musterfrau@hu-berlin.de}
   \setkomavar{local}{%
    Mohrenstraße 40/41\\
     Zimmer X\\
23
     D-10117 Berlin}
   \setkomavar{connections}{U Bahnhof Hausvogteiplatz (U2)}
   \setkomavar{accessibility}{Hausvogteiplatz}
   \setkomavar{signature} {%
     \usekomavar{institute.head} --
     \usekomavar{fromname}
   응응
```

```
3.2 .tex-file
     34 (*letter)
     35 \documentclass{hu-berlin-letter}
   Now we load the personal data-file which has the ending .lco.
     36 \LoadLetterOption{hu-berlin-letter}
   If you have the HU font installed on your computer, you can load it, too:
     37 % \setmainfont[%
           BoldFont=ScalaSans-BoldLF,
     39 응
           Numbers=OldStyle]{ScalaSans-RegularLF}
   Now following the reference information
     40 \setkomavar{myref}{}
     41 \setkomavar{yourref}{}
     42 \setkomavar{yourmail}{}
     43 \setkomavar{customer}{}
     44 \setkomavar{invoice}{}
     45 \setkomavar{subject} {Betreff}
     46 \usepackage{blindtext}
   We close the preamble and start the letter
     47 \begin{document}
   The address is written as { ⟨address⟩ }
     48 \begin{letter}{%
        Erika Musterfrau\\
        Musterweg 43\\
        56789 Musterhausen%
   Closing now again.
     52 }
     53 \opening{Sehr geehrte Frau Musterfrau,}
   This is just some blindtext.
     54 \blindtext[2]
     55 \clearpage
     56 \blindtext
   Closing letter
     57 \closing{Mit freundlichen Grüßen}
   If you still have something to say/write.
     58 \ps PS: \dots
   Any amendment.
     59 \encl{%
     60 Anlage 1 \\
     61 Anlage 2%
```

Version: 2019/06/21 V1.0.2 hu-berlin-bundle

62 }

#### This is the distribution

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

#### That's it. Done.

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

And how does a example letter looks like?

```
Example 2
   \documentclass{hu-berlin-letter}
   \LoadLetterOption{hu-berlin-letter}
   \setkomavar{myref}{}
   \setkomavar{yourref}{}
   \setkomavar{yourmail}{}
   \setkomavar{customer}{}
   \setkomavar{invoice}{}
   \setkomavar{subject}{Betreff}
   \usepackage{blindtext}
   \begin{document}
   \begin{letter}{%
     Erika Musterfrau\\
     Musterweg 43//
     56789 Musterhausen%
   \opening{Sehr geehrte Frau Musterfrau,}
   \blindtext[2]
   \clearpage
   \blindtext
   \closing{Mit freundlichen Grüßen}
20
   \ps PS: \dots
   \encl{%
     Anlage 1\\
     Anlage 2%
   \cc{%
     Verteiler 1\\
27
     Verteiler 2%
   \end{letter}
   \end{document}
```

69 (/letter)

#### 3.3 Letter from markdown

```
70 (*letter-md)
```

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

Version: 2019/06/21 V1.0.2 hu-berlin-bundle

# !

# pandoc –pdf-engine=lualatex –template hu-berlin-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.

```
71 ---
72 documentclass: hu-berlin-letter
```

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

```
73 sender: hu-berlin-letter
```

#### You should also tell a short subject

```
74 subject: Short description
```

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

```
75 addressee:
76 - Alexander von Humboldt
77 - Unter den Linden 6
78 - 10099 Berlin
79 ---
```

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

#### Now the content of your letter

80 Thank you very much for your letter.

Let's see how this example file looks like:

```
documentclass: hu-berlin-letter
sender: hu-berlin-letter
subject: Short description
addressee:
- Alexander von Humboldt
- Unter den Linden 6
- 10099 Berlin
---
Thank you very much for your letter.
```

81 (/letter-md)

Here we close the example files.

```
82 (/example)
```

Guide for Coders

```
_1 \langle *cls \rangle
```

# 4 Letter

```
_2 \*letter\>
We load scrIttr2 [4] which is the documentclass for letters. Furthermore we set up some options.

_3 \LoadClass[%

_4 fontsize=1opt,
```

If there is anything to debug, you can enable visualize

```
6 % visualize 7]{scrlttr2}
```

version=last,

For debugging also uncomment the  $\showfields{\langle fields \rangle}$  commanand.

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

Since we do want to compile with Lual-TFX, we make sure that it will be compilable only with that.

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

```
Now a fix.1
```

```
10 \ifx\directlua\relax
11 \let\directlua\UnDeFiNeD
12 \fi
13 \ifluatex
14 \else
15 \GenericError{hu-berlin}%
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** [1].

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

#### For loading fonts.

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

#### Verdana font as main font.

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

#### For the wheelchair symbol we load marvosym [5]

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

To get the HU logo on the second and following pages we load scrlayer-scrpage [3].<sup>2</sup>

```
1 https://tex.stackexchange.com/a/75065
2 https://tex.stackexchange.com/a/495258/98739
```

/ersion: 2019/06/21 v1.0.2 hu-berlin-bundle

```
23 \RequirePackage{scrlayer-scrpage}
  24 \clearpairofpagestyles
  25 \DeclareNewLayer[
  26 foreground,
  27 voffset=\useplength{firstheadvpos},
  28 hoffset=\useplength{firstheadhpos},
  29 width=\useplength{firstheadwidth},
  30 mode=picture,
  31 contents=\putUL{\raisebox{-\height}{\usekomavar{firsthead}}}}
  32 ] {likefirstpage.head}
  33 \AddLayersToPageStyle{scrheadings}{likefirstpage.head}
  34 \DeclareNewLayer[
  35 foreground,
  36 align=r,
  37 voffset=\useplength{locvpos},
  38 hoffset=\paperwidth-\useplength{lochpos},
  39 width=\useplength{locwidth},
  40 height=\useplength{locheight},
  41 contents=\usekomavar{nextlocation},
  42 %pretocontents=\layercontentsmeasure% to show the position of the layer
  43 ] {likefirstpage.loc}
  44 \AddLayersToPageStyle{scrheadings}{likefirstpage.head,likefirstpage.loc}
 Now we apply the code for following pages.
  45 \newkomavar{nextlocation}
  46 \setkomavar{nextlocation} {%
  47 \raggedright
     \fontsize{7}{8.5}\selectfont
  49
      \pagemark
  50 }
 For better adjustments of the layout we load geometry [9].
  51 \RequirePackage{geometry}
  52 \ geometry { %
  53 a4paper
  54 ,left
                     =25mm
  55 , bottom
                     =1 6mm
  56 , foot
                       =4mm
  57 ,top
                       =77mm
  <sub>58</sub> , headheight
                     =15pt
  59 , textwidth =117mm
  60 , marginparsep =omm
  61 , marginparwidth = omm
  62 }
 Main Text and signature should be raggedright.
  63 \renewcommand* { \raggedsignature } { \raggedright }
  64 \raggedright
 We also want to put the enclosures at the bottom of the page.<sup>3</sup>
  65 \def\stopletter{}
  66 \let\enclold\encl
  67 \renewcommand\encl[1] {\vskipoptplus1filll\enclold{#1}}
3 https://tex.stackexchange.com/questions/77991/put-the-encl-at-the-bottom-of-the-page-lettre-cl
```

Version: 2019/06/21 v1.0.2 hu-berlin-bundle

```
We define new komavars.
```

```
First the possibility to name the faculty,
```

```
68 \newkomavar{faculty}
```

```
69 \newkomafont {faculty} {\bfseries\fontsize{8.5}{10}\selectfont}
```

#### then the institute

```
70 \newkomavar{institute}
71 \newkomafont{institute}{\fontsize{8.5}{10}\selectfont}
```

#### and further fields for information.

```
72 \newkomavar{institute.additional}
```

#### We pass the name of the head of the institute.

```
73 \newkomafont{institute.head} {\bfseries}
74 \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.

```
75 \newkomavar{institute.head.mail}%
```

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

```
76 \newkomavar{local}
77 \setkomavar*{local}{Sitz:}
```

#### and how to get there.

```
78 \newkomavar{connections}
79 \setkomavar*{connections} {Verkehrsverbindungen:}
```

#### Furthermore we inform about office hours

```
80 \newkomavar{officehours}
81 \setkomavar*{officehours}{Sprechzeiten:}
```

#### and if there is accessibility for wheelchairs etc.

```
82 \newkomavar{accessibility}
83 \setkomavar*{accessibility}{{\large\reflectbox{\Wheelchair}} Eingang:}
84 \newkomavar{bank}
85 \setkomavar*{bank}{Bankverbindung:}
86 \setkomavar{bank}{Deutsche Bank PGK AG}
87 \newkomavar{IBAN}
88 \setkomavar{IBAN} {\mbox{IBAN DE95 1007 0848 0512 6206 01}}
89 \newkomavar{BIC}
90 \setkomavar{BIC} {BIC DEUTDEDB110}
```

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

```
91\setkomavar{location}{%
```

#### First anything regarding the font

```
92 \raggedright
93 \fontsize{7}{8.5}\selectfont
94 % \begin{macrocode}
95 % and for the section of faculty, institute etc. we use \env{minipage}
96 % \begin{macrocode}
97 \begin{minipage}[t][64mm]{\useplength{locwidth}}
```

#### then the faculty

```
98 {\usekomafont{faculty}%
```

```
\usekomavar{faculty}\\[1\baselineskip]}
 99
and the institute.
     {\usekomafont\{institute\} \setminus \{usekomavar\{institute\} \setminus \{1 \setminus baselineskip\}\}}
Now anything else regarding the institute.
 101 \ifkomavarempty{institute.additional}
     {\usekomavar{institute.additional}\\[1\baselineskip]}
103
What follows is the head of institute and its position name.
104 \ifkomavarempty{institute.head}
105 {}
106 {{\usekomafont{institute.head}}%
    \usekomavar{institute.head}}\\%
108 \usekomavar*{institute.head}}
We close this section and the minipage.
109 \end{minipage}
Let's turn to further information.
 For example date:
     \textbf{\usekomavar*{date}}\\
     \usekomavar{date}\par
and the sender of the letter.
 112 \ifkomavarempty{fromname}
 113 {}
 114 {\textbf{\usekomavar*{fromname}}\\
    \usekomavar{fromname}\par}
And the reference of correspondence.
 116 \ifkomavarempty{myref}
117 {}
 118 {\textbf{\usekomavar*{myref}}\\
    \usekomavar{myref}\par}
To complete this template we provide the possibility to name further reference fields.
120 \ifkomavarempty{yourref}
 121 {}
122 {\textbf{\usekomavar*{yourref}}\\
123 \usekomavar{yourref}\par}
124 \ifkomavarempty{yourmail}
125 {}
126 {\textbf{\usekomavar*{yourmail}}\\
    \usekomavar{yourmail}\par}
128 \ifkomavarempty{customer}
130 {\textbf{\usekomavar*{customer}}\\
 131 \usekomavar{customer}\par}
132 \ifkomavarempty{invoice}
133 {}
134 {\textbf{\usekomavar*{invoice}}\\
 135 \usekomavar{invoice}\par}
```

```
\textbf{\usekomavar*{fromaddress}}\\
     \usekomavar{fromaddress}
     \ifkomavarempty{fromphone}
138
        {\par}
139
        {\\\usekomavar*{fromphone}\usekomavar{fromphone}
140
         \ifkomavarempty{fromfax}
        {\par}
142
        {\\}}
143
     \ifkomavarempty{fromfax}
144
        { }
 145
        {\usekomavar*{fromfax}\usekomavar{fromfax}\par}
Next, emails and url:
147 \ifkomavarempty{institute.head.mail}
148
     {\usekomavar{institute.head.mail}
149
     \ifkomavarempty{fromemail}
     {\ifkomavarempty{fromurl}
      {\par}
 152
      { \ \ } }
 153
     { \ \ } }
154
 155 \ifkomavarempty{fromemail}
     {\usekomavar{fromemail}
157
    \ifkomavarempty{fromurl}
 158
    {\par}
159
     { \ \ } }
 160
 161 \ifkomavarempty{fromurl}
     {\usekomavar{fromurl}\par}
 163
Now the actual location of the sender
164 \ifkomavarempty{local}
165
    { }
     {\textbf{\usekomavar*{local}}\\
 166
     \usekomavar{local}\par}
The last information section should be pinned to the bottom.
168 \ Vfill
Inform your addressee about the connection possibilities.
169 \ifkomavarempty{connections}
170
     {\textbf{\usekomavar*{connections}}\\
 171
     \usekomavar{connections}\par}
173 \ifkomavarempty{officehours}
 174
     {\textbf{\usekomavar*{officehours}}\\
 175
     \usekomavar{officehours}\par}
If there is a barrier free entrance, tell it.
177 \ifkomavarempty{accessibility}
```

```
178
     { }
     {\textbf{\usekomavar*{accessibility}}\\
     \usekomavar{accessibility}\par}
And last the bank connection
 181 \ifkomavarempty{bank}
182
    { }
    {\textbf{\usekomavar*{bank}}\\
183
    \usekomavar{bank}\\
    \usekomavar{IBAN}\\
    \usekomavar{BIC}
186
187
Finally we close \setkomavar { (location) }
To fulfill the Corporate Design rules we adjust a few things.
189 \KOMAoptions { %
     numericaldate =true
     , refline = nodate
191
    ,backaddress =plain
192
193 , parskip =half-
194 }
Redefining length.
 195 \setplength{refvpos}{110mm}
196 \setplength{refaftervskip}{opt}
197 \setplength{toaddrhpos}{25mm}
198 \setplength{firstheadhpos}{\useplength{toaddrhpos}}
199 \setplength{lochpos}{15mm}
200 \setplength{locvpos}{\useplength{toaddrvpos}}
201 \addtoplength{locvpos}{.75\baselineskip}
202 \setplength{locwidth}{45mm}
203 \setplength{locheight}{232mm}
Now resetting or pre-defining some variables.
  First we set the head of the first page, which is the logo. Be sure that you have the right using it!
Everything regarding the logo is defined in the corporate design guidlines.<sup>4</sup>
204 \setkomavar{firsthead} {%
205 \includegraphics[width=145mm]{hu-berlin-logo.jpg}%
207 \setkomavar{backaddressseparator} {~\textbar~}
208 \setkomavar{fromphone} {0000}
209 \setkomavar*{fromphone}{Telefon +49 [30] 2093-}
210 \setkomavar{fromfax}{0000}
```

Version: 2019/06/21 V1.0.2

4 https://www.hu-berlin.de/de/hu-intern/design/basiselemente/leitfaden-corporate-design-hu.pdf

211 \setkomavar\*{fromfax}{Telefax +49 [30] 2093-}

212 \setkomavar\*{fromaddress}{Postanschrift:}

214 Humboldt-Universität zu Berlin\\

213 \setkomavar{fromaddress}{%

```
215 Unter den Linden 6\\
216 D-10099 Berlin}
217 \setkomavar*{date}{Datum:}
218 \setkomavar*{fromname}{Bearbeiter:}
219 \setkomavar*{myref}{Geschäftszeichen:}
220 \setkomavar*{enclseparator}{Anlage}
221 \setkomavar*{ccseparator}{Kopie an}
222 % \RequirePackage{hyperref}
223 % \AtBeginDocument { {
224 %
    \usekomavar[\def\author]{fromname}
      \usekomavar[\def\subject] {subject}
225 응
226 % \hypersetup{%
227 % pdftitle
                           = {\subject},
      pdfauthor
                          = \{ \{ author \}, \}
228 %
      pdfsubject
229 %
                           = {\subject},
      pdfkeywords
                           = {\author, \subject},
230 %
      pdflang
231 %
                          = de,
232 % pdfdisplaydoctitle = true,
233 % colorlinks = true,
      plainpages
                           = false,
234 %
       hypertexnames = false,
235 %
236 %
       unicode,
237 % }
238 % } }
239 (/letter)
240 (/cls)
241 (*template)
```

## 5 Boilerplate / Template for letters

```
242 \*letter-md\\
243 \documentclass{hu-berlin-letter}

We predefine two variables.
244 \newkomavar{opening}
245 \newkomavar{closing}
246 \setkomavar{opening}{Sehr geehrte Damen und Herren}
247 \setkomavar{closing}{Mit freundlichen Grüßen}
248 Sfor(letteroption) $
249 \LoadLetterOption{Sletteroption$}
```

```
250 $endfor$
 251 $if (sender) $\LoadLetterOption {$sender$} $endif$
252 $if(addresseeimage)$\setkomavar{addresseeimage}{$addresseeimage$}$endif$
253 if (backaddress)  setkomavar  backaddress  Sbackaddress  NOMA options  backaddress = 1.00
 254 \% if (from a lign) \% \land KOMA options \{from a lign = \$from a lign \$\} \$ end if \$ 
255 $if (customer) $\setkomavar{customer} {$customer$} $endif$
256 $if(date)$\setkomavar{date}{$date$}$endif$
257 $if(fromaddress) $\setkomavar{fromaddress}} {$fromaddress$}$endif$
258 $if(frombank) $\setkomavar{frombank}{$frombank$} $endif$
259 f(fromemail) \sim f(fromemail) f(fromemail) f(fromemail) \sim f(fromem
260 $\(\sif(\text{fromfax})\$\\\setkomavar{\fromfax}\{\fromfax\}\\\KOMAoptions{\fromfax=true}\$\)endif$
 \textbf{261} \ \texttt{Sif(fromlogo)} \ \texttt{Stromlogo} \} \ \texttt{KOMAoptions\{fromlogo=true\}} \\ \textbf{SendifS} \ \texttt{Sif(fromlogo)} \ \texttt{Sif(fromlogo)} \} \\ \textbf{SendifS} \ \texttt{Sif(fromlogo)} \ \texttt{Sif(fromlogo)} \} \\ \textbf{SendifS} \ \texttt{Sif(froml
262 $if(frommobilephone)$\setkomavar{frommobilephone}{\$frommobilephone$}\KOMAoptions{frommobilephone}
263 \% (from name) \% set komavar {from name} {\% from name} \%
264 $if(fromphone) $\setkomavar{fromphone} {\$fromphone$} \KOMAoptions{fromphone=true} \$end.
265 Sif(fromurl) \Lambda setkomavar{fromurl} {Sfromurl} \ KOMAoptions{fromurl=true} \ SendifS
266 Sif(fromzipcode) $\setkomavar{fromzipcode}{$fromzipcode$}$endif$
267 $if(invoice)$\setkomavar{invoice}{$invoice$}$endif$
268 $if (location) $\setkomavar{location} {$location$} $endif$
269 $if (myref) $\setkomavar{myref} {$myref$}$endif$
270 \% (myrefname) \% setkomavar* {myref} {\% myrefname\%} \% endif\%
271 $if(place)$\setkomavar{place}{$place$}$endif$
272 $if(PPcode)$\setkomavar{PPcode}{$PPcode$}$endif$
{\it 273\,\$if\,(signature)\,\$\backslash setkomavar\{signature\}\,\$signature\$\}\$endif\$}
274 $if(specialmail)$\setkomavar{specialmail}{$specialmail$}$endif$
275 $if(subject)$\setkomavar{subject}{$subject$}$endif$
276 $if(title)$\setkomavar{title}{$title$}$endif$
277 $if(yourmail)$\setkomavar{yourmail}{$yourmail$}$endif$
278 $if (yourref) $\setkomavar{yourref}{$yourref$}$endif$
279 $if (opening) $\setkomavar{opening} {$opening$}$endif$
280 f(closing) \ setkomavar\{closing\} \ endif \{closing\} \
281 Sif(firstfoot) $\setkomavar{firstfoot} {\Sfirstfoot$} \$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.

```
282 $if(addressee)$
283 $else$
284 \KOMAoptions{addrfield=false}
285 $endif$
```

#### Now the actual content of the letter

```
286 \begin{document}
287 \begin{letter}{%
288 $for (addressee) $
289 $addressee$$sep$\\
290 $endfor$
292 $for (include-before) $
293 $include-before$
294 $endfor$
295 \opening{\usekomavar{opening}}
296 $body$
297 \closing{\usekomavar{closing}}
298 \%if (ps) \%\ps{\$ps\$}\endif$
299 $if(encl)$\encl{$encl$}$endif$
300 $for(include-after)$$include-after$$endfor$
301 \end{letter}
302 \end{document}
303 (/letter-md)
_{304} \langle/template\rangle
```

# 6 Documentation preamble <style>

```
305 (*sty)
306 (*style)
307 \makeatletter
308 \addtolength\marginparwidth{-4opt}
```

```
309 \addtolength\marginparsep{4mm}
310 \addtolength\oddsidemargin{-20pt}
311 \addtolength\evensidemargin{-20pt}
312 \let\PrintDescribeMacro=\@gobble
313 \let\PrintDescribeEnv=\@gobble
314 % \def\Describe@Macro#1 {\endgroup
       %\marginnote{\PrintDescribeMacro{#1}}%
316 %
        \SpecialUsageIndex{#1}\@esphack\ignorespaces%
317 응
318 % \def \Describe@Env#1 { \endgroup
       %\marginnote{\PrintDescribeEnv{#1}}%
        \SpecialEnvIndex{#1}\@esphack\ignorespaces%
320 응
321 %
       }
322 \setminus makeatother
323 \AtBeginDocument {\normalmarginpar}
324 \setlength\MacrocodeTopsep{.5\baselineskip}
325 \setlength\MacroIndent { 6mm }
326
327
328 \RequirePackage{luatexbase}
329 \RequirePackage[ngerman, english] {babel}
330 \RequirePackage{calc}
332 \RequirePackage[
333 paper = a4paper, % - use A4 paper size
334 foot
              = 2Cm,
335 inner
              = 3cm, % - total body: left margin (odd pages)
                       % - total body: top margin
336 top
               = 3cm,
337 outer
              = 3cm, % - total body: right margin (odd pages)
338 bottom = 3cm, % - total body: bottom margin
339 marginparwidth = 2cm, % - width for side note
340 marginparsep = .5cm, % - space between notes and body text (content)
341 % showframe,
342]{geometry}
344 \newlength\fullwidth
345 \setlength\fullwidth{\textwidth+\marginparwidth+\marginparsep}
347 \KOMAoptions{
348 numbers = noenddot,
350 \AtBeginDocument {
351 \KOMAoptions{
352 % headwidth = {\fullwidth},
353 % footwidth = {\fullwidth},
354 footheight = 20pt,
355 headheight = 29pt,
356 captions = tableheading,
357 } }
358
359
361 \title{\huberlintitle}
```

```
362 %\subtitle{\huberlinsubtitle}
  363 \author{\huberlinauthor}
 364 \date{\Version}
 366
 367 %---- Required Packages
 368 \RequirePackage { ifluatex, luatex85 }
 369 \ifx\directlua\relax
 370 \let\directlua\UnDeFiNeD
 371 \fi
 372 \ifluatex
 373 \else
 374 \GenericError{hu-berlin}%
 375 {Please use 'LuaLaTeX' as Compiler.^^J I abort here.}
 376 \fi
 For fonts we load the package fontspec [8] which has almost no limits handling font-stuff.
 377 \RequirePackage{fontspec}
 378 \RequirePackage[mono=false] {libertine}
 379 \RequirePackage{amssymb}
  381 \defaultfontfeatures {%
  _{382} Ligatures = TeX
  _{383} , Scale = MatchLowercase
 384 , Numbers = OldStyle
 385 }
 For fonts we use the available TeX Gyre Pagella as main font.1
  386 \setmainfont[%
     Ligatures = TeX
 388 , Numbers = OldStyle]{TeX Gyre Pagella}
 And we declare also the other fonts, too.
 389 \setmonofont[Scale=1]{TeX Gyre Cursor}
 390 \setsansfont[%
  391 ,LetterSpace = .8]{TeX Gyre Adventor-Regular}
 392 \linespread{1.05}
 393 \newfontfamily\listingsfont[
               = MatchLowercase,
 394 Scale
  395]{TeX Gyre Cursor}
 396 \renewcommand\MacroFont{\listingsfont}
  398 \RequirePackage{marginnote}
 399 \renewcommand*{\marginfont}{%
 400 \rule{opt}{o.7\baselineskip}%
     \footnotesize%
  401
     \color{hu-berlin-brown}}
 402
 404 \RequirePackage[
 405 german = guillemets,
 406 style = german,
1 http://www.gust.org.pl/projects/e-foundry/tex-gyre
```

```
407 ] {csquotes}
409 \RequirePackage { enumitem }
410 \setlist{
411 nosep,
412 % itemindent=1em,
413 % labelindent=0.5\parindent,
   leftmargin=*}
415 \newlist{tabitemize}{itemize}{2}% neue Listenumgebung
416 \setlist[tabitemize] {%
   nosep,
417
   leftmargin=*
418
419 }
420 \setlist[tabitemize, 1] {label=\labelitemi}
421 \setlist[tabitemize, 2] {label=\labelitemii}
423
424 \clubpenalty=10000 % prevent single lines at the beginning of a paragraph (Schuste
425\widowpenalty=10000 % prevent single lines at the end of a paragraph (Hurenkinder,
426 \displaywidowpenalty=10000
428 \RequirePackage { pdfpages }
429 \RequirePackage{biblatex}
430 \addbibresource { \ jobname-bibliography.bib}
431 \addbibresource { \ jobname-ctan.bib}
432 \RequirePackage{ccicons} %creative commons
433 \RequirePackage{xparse}
434 \RequirePackage { ragged2e }
435 \RequirePackage{microtype}
436 \RequirePackage {xspace}
437 \RequirePackage{graphicx}
438 \graphicspath { \limg/ \right\}
439 \RequirePackage { etoolbox }
440 %https://tex.stackexchange.com/a/235881/98739
441 \AfterEndPreamble { \maketitle }
442
443 % https://tex.stackexchange.com/a/401466/98739
444 \makeatletter
445 \renewcommand* { \maketitle } { %
   % taken and shortened from /usr/share/texmf/tex/latex/koma-script/scrartcl.cls
    \begin{titlepage}
    \newgeometry{left=3cm, right=3cm, top=1.5cm, bottom=2cm}
    \global\@topnum=\z@
   \setparsizes{\z@}{\z@}{\z@\@plus 1fil}\par@updaterelative
450
   \null
     {\large\@author\hfill Guideline and Documentation\par}
452
     \vskip 10em%
454 {\begin{center}\color{hu-berlin-blue}
455 {\fontsize{50}{55}\selectfont\huberlinshort{} \par\vskip .5em%
456 \Large\sffamily\@title}\par
457 \vskip .5em
458 \end{center}}%
```

Version: 2019/06/21 V1.0.2

```
459 {\ifx\@subtitle\@empty\else\usekomafont\subtitle}\@subtitle\par\fi}
460 \null\vskip 5em%
461 \blockcquote[195]{Hoare1973}{Documentation must be regarded as an integral part of
462 A good programming language will encourage and assist the programmer to write clear
463 self-documenting code,
464 and even perhaps to develop
465 and display a pleasant style
466 of writing.}
467 \null\vfill
468 {\usekomafont{subtitle}{\@date \hfill
469 \includegraphics[width=4cm] {texografie} \ \ } }%
470 \par
471 \vskip oem
   \restoregeometry
    \end{titlepage}
474 } %
475 \makeatother
476
477 \RequirePackage {xcolor}
478 \definecolor{hu-berlin-blue} {RGB} {0,65,137} % HEX 004189
479 \definecolor{hu-berlin-green}{RGB}{150,190,20} % HEX 93C11A % Topoi
480 \definecolor{hu-berlin-grey} {RGB} {169, 169, 169}
481 \definecolor{hu-berlin-brown} {RGB} {82,79,60}
482 \definecolor{hu-berlin-red} {RGB} {180,0,0}
483
484
485 \RequirePackage{dirtree}
486 \renewcommand*\DTstylecomment{%
487 \color{hu-berlin-grey}%
   \footnotesize%
488
   \sffamily}
490 \renewcommand*\DTstyle{%
   \ttfamily%
    \small%
492
    }
493
494
495 \RequirePackage[
496 markcase = noupper,
   footsepline = .5pt,
    % headsepline = .5pt,
   autooneside = false, % use left and right marks with a onesided document
    automark, % set \leftmark and \rightmark automatically by *\section and \subsection
    draft = false,
501
    ] {scrlayer-scrpage}
502
504 \pagestyle {scrheadings}
505 \clearscrheadfoot
506 \rofoot*{\thepage}
507 \lofoot*{\textcolor{hu-berlin-blue}{\huberlintitle}\\vrule\\textcolor{hu-
  berlin-brown \ { \ huberlinsubtitle \} \}
508 \rohead*{hu-berlin-bundle}
509 \lohead*{Version: \Version}
```

```
510 % https://tex.stackexchange.com/a/352925/98739
511 \newcommand*\partnumber{}
512 \DeclareNewLayer[
    background,
    textarea,
514
    addwidth=\marginparsep+\marginparwidth,
    mode=picture,
    contents={%
518 \putC{\makebox[opt][c]{\raisebox{-.5\height}{\scalebox{50}}{\textcolor{black!5}}{\pai
519 }
520 ] {partnumber}
521 \DeclareNewPageStyleByLayers{part}{partnumber}
522 \renewcommand\partpagestyle{part}
523 \ensuremath{\command*{\partformat}}{\dots} \
525% only a dirty workaround for the part title
526 \newcommand*\changedpartwidth[1] {%
527 \makebox[\linewidth][l]{%
528 \parbox{\dimexpr\textwidth+\marginparsep+\marginparwidth\relax}{\raggedpart#1}%
529 } %
530 }
531 % add \changedpartwidth as last command to the settings for font element part
532 \addtokomafont{part}{\Huge\changedpartwidth}
533
534
536 %-https://tex.stackexchange.com/a/339516/98739 | https://tex.stackexchange.com/a/90
537 % footnotes in the footer:
538 \deffootnote%
    %[\normalparindent]%<width of mark>
539
    {o.ocm}%<indent of footnote text>
     {\normalparindent}%<paragraph indent in the footnote text>
    {\makebox[\normalparindent][r]%
    {\thefootnotemark\hspace*{3pt}}}%<definition of mark>
544 \newlength{\normalparindent}
545 \AtBeginDocument {\setlength {\normalparindent} {\parindent}}
546 \setfootnoterule{opt}% Kein Fußnotenstrich
547 %\setfootnoterule[<height>]{<length>}
548
This will put the numbers of the chapters and sections into the margin.
549 \renewcommand\sectionlinesformat[4]{%
    \makebox[opt][r]{#3}#4%
551 }
552 \RequirePackage {url}
553 % \urlstyle{same}
554
555 \setminus setkomafont\{title\}\{\setminus sffamily \setminus color\{hu-berlin-blue\} \setminus flushleft \setminus bfseries\}
556 \setkomafont{disposition}{\color{hu-berlin-brown}\sffamily\bfseries\large}
557 \setkomafont{section} {\usekomafont{disposition}}
558 \setkomafont {subsection} {\usekomafont {disposition}}
559 \setkomafont{subsubsection} {\usekomafont{disposition}}
560 % \setkomafont {paragraph} {\bfseries}
```

```
561 % \setkomafont{subsubsection}{\sffamilybold}
562 \setkomafont{subtitle}{\large\color{hu-berlin-brown}\sffamily\flushleft}
563 \setkomafont {pageheadfoot} {\footnotesize\sffamily\color{hu-berlin-grey}}
564 \setkomafont {descriptionlabel} {\bfseries}
565 \setkomafont {footnotelabel} { \bfseries }
566 \addtokomafont{titlehead}{\flushright}
567 % \setkomafont{headsepline}{\color{hu-berlin-blue}}
568 %\setkomafont{marginnote}{\MakeUppercase\color{hu-berlin-brown}}
569 \addtokomafont{caption}{\scriptsize}
570 \setkomafont{captionlabel}{\bfseries\sffamily}
571 \setkomafont {subject} {\bfseries\sffamily}
572 \setcapindent{opt}
574 \raggedbottom
576 \RequirePackage{listings}
577 \PassOptionsToPackage{final}{listings}
578 \RequirePackage[%
    skins
579
580
   ,listings
581 , breakable
582 , xparse
    , documentation
584 | {tcolorbox}
585 \lstMakeShortInline[language=TeX, basicstyle=\ttfamily]|
Following we load hyperxmp [7] and hyperref [6] for PDF-meta data and interactive linked text.
586 \RequirePackage{hyperxmp}
587 \RequirePackage{hyperref}
588 \hypersetup{% setup the hyperref-package options
589 unicode
               = true,
   pdfauthor
                  = {hu-berlin}, % - author (PDF meta)
    pdfauthortitle
                      = \{\},
   pdfcopyright = {Copyright (c) \the\year . All rights reserved.},
593 pdfhighlight = /N,
   pdfdisplaydoctitle = true,
= {},%de en
   pdflang
596
   pdfcaptionwriter = {Lukas C. Bossert},
597
                  = \{hu-berlin\},
   pdfkeywords
598
    pdfencoding
                   = auto,
                 = {hu-berlin with LuaLaTeX},
   pdfproducer
   bookmarksnumbered = true,
   bookmarksopenlevel = 2,
602
    bookmarksopen = true,
   bookmarksdepth = 3,
604
   colorlinks = true,
                             %Colours links instead of ugly boxes
   urlcolor
                  606
   linkcolor
                 = black, %Colour of internal links
    citecolor
                   = black,
                              %Colour of citations
   linktoc
                   = page,
609
610 pdfborder
                  = \{ o \ o \ o \},
```

Version: 2019/06/21 V1.0.2

611 breaklinks = true, %allow line break inside links

```
612 final
613 }
614 \RequirePackage {bookmark}
616 \RequirePackage[
617 sort,
618 nameinlink,
619 compress,
620 ngerman, english
621 ] {cleveref}
623
624 %---- newcommands
625 \newcommand{\TeXografie}{Lukas C. Bossert
    (www.TeXografie.de) }
627 \newcommand\huberlin{\huberlintitle\xspace}
628
620
630 \newcommand\huberlinFolder{%
631
   \begingroup%
632 \normalfont%
633 \color{hu-berlin-blue}%
   % \faFolderOpen% taken from fontawesome
    \hspace{.3em}%
635
    \endgroup}
636
637
638
639
640 \RedeclareSectionCommands[
641 tocraggedpagenumber,
642 toclinefill=\tocpageseparator,
643 tocindent=oem,
644 tocnumwidth=4em,
645 tocpagenumberbox=\tocpagenumberbox% <- added
646 % tocpagenumberformat=\textsf,
647 ] {chapter, section, subsection, subsubsection, paragraph}
648
649 \newcommand\tocgobble[1]{}% <- added
650 \newcommand\tocpageseparator{\footnotesize\, \mbox{---}\,}
651 \newcommand\tocpagenumberbox[1]{\mbox{#1}}% <- added
652 \KOMAoptions {toc=indentunnumbered}
653
654 \RedeclareSectionCommand[
655 % tocheforeskip=1.25em plus 1pt
656 ,tocentryformat=\large\scshape%
     ,tocindent=oem
     ,tocnumwidth=4em
     , tocpagenumberbox=\tocgobble% <- added</pre>
660 ] {part}
661 %\addtokomafont{partentry}{\scshape\sffamily\bfseries}
663 \RedeclareSectionCommand[%
664% , beforeskip=1.15em plus 1pt%
```

```
665, tocentryformat=\textbf%
666 % ,toclinefill={\TOCLineLeaderFill}%\TOCLineLeaderFill[\textbf{.}]
667 ] {chapter}
668
669
670
671
672 \newtcolorbox{example}[1][]{
673 breakable,
674 top=5pt,
675 bottom=5pt,
   colback=hu-berlin-blue!10,
677 colframe=hu-berlin-blue,
   left=5pt,
678
   right=5pt,
    sharp corners,
680
681 boxrule=opt,
682
   bottomrule=2pt,
   toprule=2pt,
684
    enhanced jigsaw,
   lefttitle=opt,
   coltitle=white,
686
    fonttitle=\bfseries,
687
     fontupper=\small, %\ttfamily,
   % colbacktitle=hu-berlin-blue!20
689
690
    #1,
691 }
692
693 % Replace the squat-u symbol for spaces
694 % https://tex.stackexchange.com/a/488123/98739
695 \makeatletter
696 \def\lst@visiblespace{\lst@ttfamily{\char32}$\textcolor{hu-berlin-grey}{\cdot}$}
697 \makeatother
698
699
700 \lstset{%
701 basicstyle = \linespread{0.7}\listingsfont
702 , breaklines = true
703 , breakatwhitespace
704 , alsoletter=\\\{\}\*\[\]\-
705 , showstringspaces=true
706 }
708 \lstdefinestyle{hu-berlinlistingstyledef}{%
709 tabsize
                 = 4,
710 breaklines = true,
711 breakatwhitespace = true,
   postbreak=\mbox{$\hookrightarrow$},
712
   %keepspaces = true,
713
escapeinside = \{(*@)\{@*)\},
   moredelim = \{[is][\ttfamily\bfseries\color\{hu-berlin-blue\}]\{|\}\{|\}\},
715
   moredelim = \{[is][\ttfamily\bfseries\color\{hu-berlin-blue\}]\{|1\}\{1|\}\},
716
   moredelim = \{[is] \mid \text{ttfamily} \}
```

```
aboveskip=opt,
   belowskip=opt,
720 captionpos=b,
721 resetmargins=true,
722 sensitive=true,
   upquote=true,
724 showspaces=true,
725 showtabs=true,
726 tab=\textcolor{hu-berlin-grey}{\rightarrowfill},
   %numbers=left,
    %numberstyle=\footnotesize\ttfamily\color{hu-berlin-grey},
728
   comment = [1] \{ \ \ \ \ \},
729
730 commentstyle = \footnotesize\color{hu-berlin-grey}\addfontfeature{LetterSpace=.7
   % deletecomment = [1]{\%<}
    % morecomment = [1][\nullfont]{\%<},</pre>
   % deletecomment = [is]\{\%<\}\{>\},
733
734 }
736 \lstdefinestyle{hu-berlinlistingstyle}{%
   language = {TeX},
737
738 style
             = {hu-berlinlistingstyledef},
739 }
740
741
742
743
745
746 \tcbset{%
747 hu-berlinstyle/.style={%
748 enhanced,
749 before skip=2mm,
750 after skip=3mm,
751 boxrule=0.7pt,
752 left=2mm,
753 right=2mm,
754 top=2mm,
755 bottom=2mm,
756 sharp corners,
   colback=white,
757
758 colbacklower=white,
   % fonttitle=\sffamily\bfseries,
759
760 breakable,
   %before skip=\baselineskip,
761
   coltitle=white,
762
763 colbacktitle=hu-berlin-blue!50!black,
764 fonttitle=\bfseries\sffamily\footnotesize,
   % before upper={\mynote{\thetcbcounter}},
   title={\hfill{Example \thetcbcounter}},
766
767
    },
768 codecomment/.style={%
769 listing outside comment, %
770 boxrule=opt,
```

```
771 colback=white,
772
773 }
774
775 \newtcolorbox{warning}[1][]{
776 enhanced,
777 before skip=2mm,
778 after skip=3mm,
779 boxrule=0.7pt,
780 left=5mm,
781 right=2mm,
782 top=2mm,
783 bottom=2mm,
784 colback=white,
785 colframe=yellow!20!black,
786 sharp corners,
787 rounded corners=southeast,
788 arc is angular,
789 arc=3mm,
790 underlay={%
791 \path[fill=hu-berlin-grey!80!black] ([yshift=3mm]interior.south east)--
  ++(-0.4,-0.1)--++(0.1,-0.2);
792 \path[draw=hu-berlin-grey, shorten <=-0.05mm, shorten >=-0.05mm] ([yshift=3mm]interio
  ++(-0.4, -0.1) --++(0.1, -0.2);
793 \path[fill=red!50!black, draw=none] (interior.south west) rectangle node[white] {\Huge
794 },
795 drop fuzzy shadow,
   #1
796
797
   }
798
799 \newtcblisting[%
800 auto counter,
801 crefname = {example} {examples},
802 Crefname = {Example} {Examples},
803 ] {codetext} [2] [] {%
804 hu-berlinstyle,
805% side text,
806 rounded corners=northeast,
807 arc=6mm,
   listing style=hu-berlinlistingstyle,
809
   label = #2,
   #1,
810
811
   }
812
813 \newtcblisting[%
814 use counter from=codetext,
815 crefname={code example} {code examples},
816 Crefname={Code example}{Code examples}%
817 | {code} [2] [] {%
818 hu-berlinstyle,
819 rounded corners=southeast,
820 arc=6mm,
   listing only,
```

```
822 listing style=hu-berlinlistingstyle,
   label = #2,
823
   #1,
824
825 }
826
828 \DeclareTCBInputListing[%
829 use counter from=codetext,
830 crefname={code example}{code examples},
831 Crefname={Code example} {Code examples} %
832 ] {\huberlinlisting} { O{} m } {%
833 hu-berlinstyle,
834 listing file={#2},
835 listing only,
     listing style=hu-berlinlistingstyle,
   #1,
837
838 }
839
840 \makeatletter
841 \newrobustcmd*{\fnurl}[1][]{\hyper@normalise\ltd@fnurl{#1}}
843 \setminus makeatother
```

The first command is used to refrence packages with: \\pkg{\package name\}.^2 The name of the package is linked to its entry on CTAN and refrenced to the bibliography in the end of this documentation.

```
844 \RequirePackage { newfile }
845 \newoutputstream{pkglist}
846 \NewDocumentCommand { \pkg } { om } { %
847 \IfNoValueTF{#1}
848 {\lowercase{\href{http://www.ctan.org/pkg/#2}}{\textbf{#2}}}
849 {\lowercase{\href{http://www.ctan.org/pkg/#1-#2}}{\textbf{#2}}}%
850 \space\cite{#2}%
851 \addtostream{pkglist}{#2}}
852 \newrobustcmd*{\{\lit\}[1]\{\textsf{\#1}\}}
853 \newrobustcmd*{\Code}[1]{\texttt{#1}}
854 \newrobustcmd*{\tex}{\TeX}
855 \newrobustcmd*{\etex}{\mbox{e-TeX}}
856 \newrobustcmd*{\pdftex}{pdf - \tex}
857 \newrobustcmd*{\xetex}{Xe}-\tex}
858 \newrobustcmd*{\luatex}{Lua\-\tex}
859 \newrobustcmd*{\latex}{\LaTeX}%{La\kern-o.o7em TeX}
860 \newrobustcmd*{\pdflatex}{pdf\-\latex}
861 \newrobustcmd* {\xelatex} {Xe\-\latex}
862 \newrobustcmd*{ \lualatex} {Lua\-\latex}
863 \mbox{\ lower obust cmd*} {\mbox{\ miktex}} {\mbox{\ Mik} \mbox{\ -} \mbox{\ tex}}
864 \newrobustcmd*{\texlive}{\tex~live}
865 \newrobustcmd*{\bibtex}{Bib\kern-o.o7em TeX}
866 \newrobustcmd*{\lppl}{\latex{} Project Public License}
867 \newrobustcmd*{\pdf}{{PDF}}
```

**2** Do not forget to insert the name of the package into the makefile in the definition of PKG.

```
868 \newrobustcmd*{\md}{{MarkDown}}
869 \newrobustcmd*{\utf}{\mbox{{UTF}-8}}
870 % no \mbox here, we may have to break things
871 \newrobustcmd*{\bibfield}[1]{\Code{#1}}
872 \newrobustcmd*{\opt}[1]{\Code{#1}}
873 \newrobustcmd*{\bibmacro}[1]{\Code{#1}}
874 \newrobustcmd*{\bibtype}[1]{\Code{@#1}}
875 %\renewrobustcmd*{\cmd}[1]{\Code{\textbackslash #1}}
876 \renewrobustcmd\meta[1] {\normalfont {\textlangle} {\itshape#1\/} {\textrangle}}
877
878 % directly taken from ltxdoc.dtx
879 \renewrobustcmd\marg[1] {%
    {\ttfamily\textcolor{hu-berlin-red}{\{}}}
     \meta{#1}%
881
    {\ttfamily\textcolor{hu-berlin-red}{\}}}%
882
883
884
885 \renewrobustcmd\oarg[1] {%
   {\ttfamily\textcolor{hu-berlin-green}{[}}%
887
     \meta{#1}%
888
    {\ttfamily\textcolor{hu-berlin-green}{]}}%
889
890
891 % adapted from listings.dtx (lstdoc.sty)
892 \renewrobustcmd\cmd[1] {%
893 \texttt{\color{hu-berlin-blue}\textbackslash\string#1}\xspace%
    }
894
895
896 \newrobustcmd\env[2][]{%
897 \texttt{%
898 \color{hu-berlin-blue} %
899 \textbackslash begin\{\string#2\}#1}%
900 \ldots
   \texttt{%
902 \color{hu-berlin-blue}%
903 \textbackslash end\{\string#2\}}%
904 \xspace}
```

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

```
905 \newcommand\param[1] {%
   \begingroup%
    \normalfont%
907
    \ttfamily%
    \bfseries%
909
   \textless%
   #18
911
    \ttfamily%
912
   \bfseries%
913
   \textgreater%
915 \endgroup}
916 \pdfstringdefDisableCommands { %
917 \def\lstinline#1{<#1>}
```

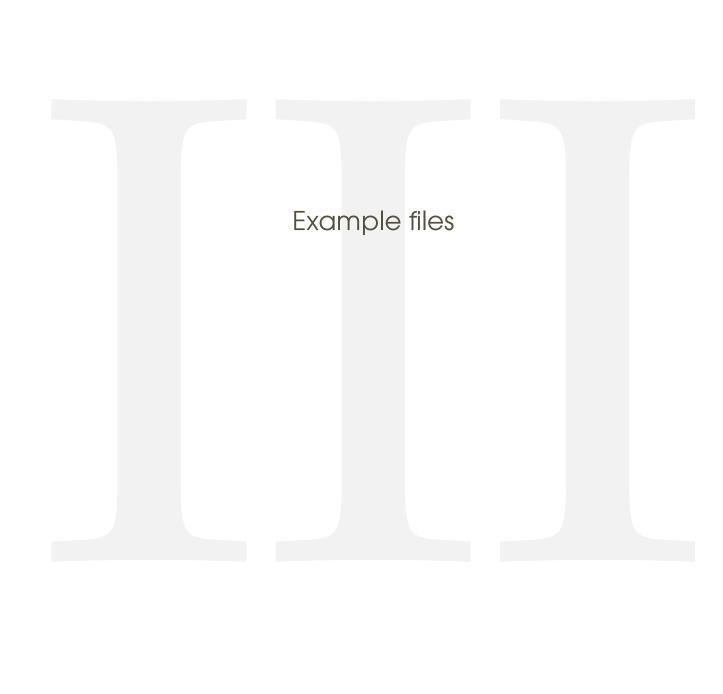
```
918 \def\tex{TeX}%
 919 \def\etex{e-TeX}%
920 \def\xetex{XeTeX}%
 921 \def\latex{LaTeX}%
922 \def\xelatex{XeLaTeX}%
923 \def\bibtex{BibTeX}%
924 \def\lppl{LaTeX Project Public License}%
 925 \def\pdf{PDF}%
926 \def\utf{UTF-8}%
927 \def\\{}%
 928 \def\texttt#1{<#1>}%
 929 \def\marg#1{\{#1\}}%
930 \def\oarg#1{[#1]}%
 931 \def\color#1#2{}%
932 \def\env#1{<#1>}
933 \def\cmd#1{#1}
935 % https://tex.stackexchange.com/a/24067/98739
 936 \makeatletter
937 \patchcmd{\scr@startchapter}{\if@openright\cleardoublepage\else\clearpage\fi}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\figure{100}}{\f
938 \makeatother
940 \RequirePackage[tightLists=false] {markdown}
941 \markdownSetup{rendererPrototypes={%
942 \ link = \{ \href{\#3}{\#1} \} \%
943 } }
_{944}\left</\mathrm{style}\right>
_{945}\langle/\text{sty}\rangle
```

### Bibliography

- [1] David Carlisle and The LaTeX Team. *The Graphicx package. Enhanced support for graphics*. Version 1.1a. June 1, 2017. URL: http://www.ctan.org/pkg/graphicx (visited on 06/22/2019).
- [2] 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).
- [3] Markus Kohm. The Scrlayer-scrpage package. Define and manage page styles. Version 3.26b. Feb. 1, 2019. URL: http://www.komascript.de/(visited on 06/22/2019).
- [4] Markus Kohm. *The Scrittr2 package. Koma-Script 'letter' class*. Version 3.26b. Feb. 1, 2019. URL: http://www.komascript.de/(visited on 06/22/2019).
- [5] Mojca Miklavec, Thomas Henlich, and Martin Vogel. *The Marvosym package. Martin Vogel's Symbols (marvosym) font.* Version 2.2a. url: http://www.marvosym.de (visited on 06/22/2019).

[6] 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 06/22/2019).

- [7] Scott Pakin. The Hyperxmp package. Embed XMP metadata within a LaTeX document. Version 4.1. URL: http://www.ctan.org/pkg/hyperxmp (visited on 06/22/2019).
- [8] Will Robertson. The Fontspec package. Advanced font selection in XeLaTeX and LuaLaTeX. Version 2.7c. url: http://www.ctan.org/pkg/fontspec (visited on o6/22/2019).
- [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 06/22/2019).



# 7 Letter

7.1 From .tex

Version: 2019/06/21 V1.0.2 hu-berlin-bundle

#### 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 add more text.

Prof. Dr. Maike Musterfrau Dekanin

#### **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:** 22. 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 DEUTDEDB110

#### HUMBOLDT-UNIVERSITÄT ZU BERLIN



Seite 2

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

hu-berlin-bundle Version: 2019/06/21 V1.0.2

### 7.2 From **.md**

Version: 2019/06/21 V1.0.2 hu-berlin-bundle

#### 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 add more text.

Prof. Dr. Maike Musterfrau

#### **Short description**

Sehr geehrte Damen und Herren

Thank you very much for your letter.

Mit freundlichen Grüßen

Prof. Dr. Maike Musterfrau - Dr. Max Mustermann

**Datum:** 22. 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 DEUTDEDB110