Lukas C. Bossert

lukas@texografie.de

# 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]

# Contents

# 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 v1.0.3 (2019-06-26)

- Changed the main font for compatibility with UNIX-systems (TeX Gyre Heros instead of Verdana).

### 1.2.2 v1.0.2 (2019-06-22)

Renaming files for CTAN compatability.

### 1.2.3 v1.0.1 (2019-06-21)

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

### 1.2.4  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

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).

# 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
├── hu-berlin-bundle.dtx................................ 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
├── hu-berlin-letter.md ............................... example 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

We give an example on how to create a letter.

## 3.1 `.lco`-file

2 ⟨∗lco⟩

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; [ ⟨*position*⟩ ]

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}`
19 `}`

```
20 \setkomavar{institute.additional}{Here you can add more text.}

21 \setkomavar{institute.head}[Dekanin]{Prof. Dr. Maike Musterfrau}

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

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

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

28 \setkomavar{accessibility}{Hausvogteiplatz}

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

33 ⟨/lco⟩
```

**Example 1**

```
1  \ProvidesFile{hu-berlin-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 \setkomavar{institute.additional}{Here you can add more
     text.}
19 \setkomavar{institute.head}[Dekanin]{Prof. Dr. Maike
     Musterfrau}
20 \setkomavar{institute.head.mail}{maike.musterfrau@hu-berlin.de}
21 \setkomavar{local}{%
22   Mohrenstraße 40/41\\
23   Zimmer X\\
24   D-10117 Berlin}
25 \setkomavar{connections}{U Bahnhof Hausvogteiplatz (U2)}
26 \setkomavar{accessibility}{Hausvogteiplatz}
27 \setkomavar{signature}{%
28   \usekomavar{institute.head} --
29   \usekomavar{fromname}
30 }
31 %%
```

## 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[%
38 %    BoldFont=ScalaSans-BoldLF,
39 %    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}{%
```

```
49    Erika Musterfrau\\
50    Musterweg 43\\
51    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%
```

```
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

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

> **!** 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:

```
                                                                    Example 3

1  ---
2  documentclass: hu-berlin-letter
3  sender: hu-berlin-letter
4  subject: Short description
5  addressee:
6  - Alexander von Humboldt
7  - Unter den Linden 6
8  - 10099 Berlin
9  ---
10 Thank you very much for your letter.
```

```
81 ⟨/letter-md⟩
```

Here we close the example files.

```
82 ⟨/example⟩
```

# II

Guide for Coders

1 ⟨∗cls⟩

## 4 Letter

2 ⟨∗letter⟩

We load **scrlttr2** [4] 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 ]{scrlttr2}
```

For debugging also uncomment the `\showfields{⟨fields⟩}` commanand.

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

Since we do want to compile with LuaLaTeX, 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** [8].

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

For loading fonts.

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

Actually the corporate design says that the font Verdana should be used. But since this font is not included in UNIX-systems we use a derivative.

```
21 \setmainfont{TeX Gyre Heros}
```

If you have Verdana on your system you can uncomment the following line.

```
22 % \setmainfont{Verdana}
```

For the wheelchair symbol we load **marvosym** [9]

---

[1] https://tex.stackexchange.com/a/75065

```
23 \RequirePackage{marvosym}
```

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

```
24 \RequirePackage{scrlayer-scrpage}
25 \clearpairofpagestyles
26 \DeclareNewLayer[
27   foreground,
28   voffset=\useplength{firstheadvpos},
29   hoffset=\useplength{firstheadhpos},
30   width=\useplength{firstheadwidth},
31   mode=picture,
32   contents=\putUL{\raisebox{-\height}{\usekomavar{firsthead}}}
33 ]{likefirstpage.head}
34 \AddLayersToPageStyle{scrheadings}{likefirstpage.head}
35 \DeclareNewLayer[
36   foreground,
37   align=r,
38   voffset=\useplength{locvpos},
39   hoffset=\paperwidth-\useplength{lochpos},
40   width=\useplength{locwidth},
41   height=\useplength{locheight},
42   contents=\usekomavar{nextlocation},
43   %pretocontents=\layercontentsmeasure% to show the position of the layer
44 ]{likefirstpage.loc}
45 \AddLayersToPageStyle{scrheadings}{likefirstpage.head,likefirstpage.loc}
```

Now we apply the code for following pages.

```
46 \newkomavar{nextlocation}
47 \setkomavar{nextlocation}{%
48    \raggedright
49    \fontsize{7}{8.5}\selectfont
50    \pagemark
51 }
```

For better adjustments of the layout we load **geometry** [1].

```
52 \RequirePackage{geometry}
53 \geometry{%
54    a4paper
55  ,left            =25mm
56  ,bottom          =16mm
57  ,foot            =4mm
58  ,top             =77mm
59  ,headheight      =15pt
60  ,textwidth       =117mm
61  ,marginparsep    =0mm
62  ,marginparwidth  =0mm
63 }
```

Main Text and signature should be raggedright.

```
64 \renewcommand*{\raggedsignature}{\raggedright}
65 \raggedright
```

---

[2] https://tex.stackexchange.com/a/495258/98739

We also want to put the enclosures at the bottom of the page.[3]

```
66 \def\stopletter{}
67 \let\enclold\encl
68 \renewcommand\encl[1]{{\vskipoptplus1filll\enclold{#1}}
```

We define new `komavar`s.

First the possibility to name the faculty,

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

then the institute

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

and further fields for information.

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

We pass the name of the head of the institute.

```
74 \newkomafont{institute.head}{\bfseries}
75 \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.

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

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

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

and how to get there.

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

Furthermore we inform about office hours

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

and if there is accessibility for wheelchairs etc.

```
83 \newkomavar{accessibility}
84 \setkomavar*{accessibility}{{\large\reflectbox{\Wheelchair}} Eingang:}
```

```
85 \newkomavar{bank}
86 \setkomavar*{bank}{Bankverbindung:}
87 \setkomavar{bank}{Deutsche Bank PGK AG}
88 \newkomavar{IBAN}
89 \setkomavar{IBAN}{\mbox{IBAN DE95 1007 0848 0512 6206 01}}
90 \newkomavar{BIC}
91 \setkomavar{BIC}{BIC DEUTDEDB110}
```

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

```
92 \setkomavar{location}{%
```

First anything regarding the font

```
93     \raggedright
94     \fontsize{7}{8.5}\selectfont
```

---

**3** https://tex.stackexchange.com/questions/77991/put-the-encl-at-the-bottom-of-the-page-lettre-cl

```
95 %    \begin{macrocode}
96 % and for the section of faculty, institute etc. we use \env{minipage}
97 %    \begin{macrocode}
98 \begin{minipage}[t][64mm]{\useplength{locwidth}}
```

then the faculty

```
99  {\usekomafont{faculty}%
100    \usekomavar{faculty}\\[1\baselineskip]}
```

and the institute.

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

Now anything else regarding the institute.

```
102 \ifkomavarempty{institute.additional}
103   {}
104   {\usekomavar{institute.additional}\\[1\baselineskip]}
```

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

```
105 \ifkomavarempty{institute.head}
106   {}
107   {{\usekomafont{institute.head}%
108    \usekomavar{institute.head}}\\%
109 \usekomavar*{institute.head}}
```

We close this section and the minipage.

```
110   \end{minipage}
```

Let's turn to further information.
   For example date:

```
111    \textbf{\usekomavar*{date}}\\
112    \usekomavar{date}\par
```

and the sender of the letter.

```
113 \ifkomavarempty{fromname}
114   {}
115 {\textbf{\usekomavar*{fromname}}\\
116    \usekomavar{fromname}\par}
```

And the reference of correspondence.

```
117 \ifkomavarempty{myref}
118   {}
119 {\textbf{\usekomavar*{myref}}\\
120    \usekomavar{myref}\par}
```

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

```
121 \ifkomavarempty{yourref}
122   {}
123 {\textbf{\usekomavar*{yourref}}\\
124    \usekomavar{yourref}\par}
```

```
125 \ifkomavarempty{yourmail}
126   {}
127 {\textbf{\usekomavar*{yourmail}}\\
128    \usekomavar{yourmail}\par}
```

```
129 \ifkomavarempty{customer}
130   {}
```

```
131  {\textbf{\usekomavar*{customer}}}\\
132    \usekomavar{customer}\par}

133 \ifkomavarempty{invoice}
134  {}
135  {\textbf{\usekomavar*{invoice}}}\\
136    \usekomavar{invoice}\par}

137    \textbf{\usekomavar*{fromaddress}}\\
138    \usekomavar{fromaddress}
139    \ifkomavarempty{fromphone}
140      {\par}
141      {\\\usekomavar*{fromphone}\usekomavar{fromphone}
142       \ifkomavarempty{fromfax}
143      {\par}
144      {\\}}
145    \ifkomavarempty{fromfax}
146      {}
147      {\usekomavar*{fromfax}\usekomavar{fromfax}\par}
```

Next, emails and url:

```
148 \ifkomavarempty{institute.head.mail}
149  {}
150  {\usekomavar{institute.head.mail}
151    \ifkomavarempty{fromemail}
152    {\ifkomavarempty{fromurl}
153     {\par}
154     {\\}}
155    {\\}}

156 \ifkomavarempty{fromemail}
157  {}
158  {\usekomavar{fromemail}
159    \ifkomavarempty{fromurl}
160    {\par}
161    {\\}}

162 \ifkomavarempty{fromurl}
163  {}
164  {\usekomavar{fromurl}\par}
```

Now the actual location of the sender

```
165 \ifkomavarempty{local}
166  {}
167  {\textbf{\usekomavar*{local}}}\\
168    \usekomavar{local}\par}
```

The last information section should be pinned to the bottom.

```
169 \vfill
```

Inform your addressee about the connection possibilities.

```
170 \ifkomavarempty{connections}
171  {}
172  {\textbf{\usekomavar*{connections}}}\\
173    \usekomavar{connections}\par}
```

```
174 \ifkomavarempty{officehours}
175   {}
176   {\textbf{\usekomavar*{officehours}}\\
177   \usekomavar{officehours}\par}
```

If there is a barrier free entrance, tell it.

```
178 \ifkomavarempty{accessibility}
179   {}
180   {\textbf{\usekomavar*{accessibility}}\\
181   \usekomavar{accessibility}\par}
```

And last the bank connection

```
182 \ifkomavarempty{bank}
183   {}
184   {\textbf{\usekomavar*{bank}}\\
185   \usekomavar{bank}\\
186   \usekomavar{IBAN}\\
187   \usekomavar{BIC}
188   }
```

Finally we close \setkomavar{⟨*location*⟩}

```
189 }
```

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

```
190 \KOMAoptions{%
191    numericaldate =true
192   ,refline       =nodate
193   ,backaddress   =plain
194   ,parskip       =half-
195 }
```

Redefining length.

```
196 \setplength{refvpos}{110mm}
197 \setplength{refaftervskip}{0pt}
198 \setplength{toaddrhpos}{25mm}
199 \setplength{firstheadhpos}{\useplength{toaddrhpos}}
200 \setplength{lochpos}{15mm}
201 \setplength{locvpos}{\useplength{toaddrvpos}}
202 \addtoplength{locvpos}{.75\baselineskip}
203 \setplength{locwidth}{45mm}
204 \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.[4]

```
205 \setkomavar{firsthead}{%
206 \includegraphics[width=145mm]{hu-berlin-logo.jpg}%
207 }

208 \setkomavar{backaddressseparator}{~\textbar~}

209 \setkomavar{fromphone}{0000}
210 \setkomavar*{fromphone}{Telefon +49 [30] 2093-}
```

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

```
211 \setkomavar{fromfax}{0000}
212 \setkomavar*{fromfax}{Telefax +49 [30] 2093-}

213 \setkomavar*{fromaddress}{Postanschrift:}
214 \setkomavar{fromaddress}{%
215   Humboldt-Universität zu Berlin\\
216   Unter den Linden 6\\
217   D-10099 Berlin}

218 \setkomavar*{date}{Datum:}

219 \setkomavar*{fromname}{Bearbeiter:}

220 \setkomavar*{myref}{Geschäftszeichen:}

221 \setkomavar*{enclseparator}{Anlage}

222 \setkomavar*{ccseparator}{Kopie an}

223 % \RequirePackage{hyperref}
224 % \AtBeginDocument{{
225 %   \usekomavar[\def\author]{fromname}
226 %   \usekomavar[\def\subject]{subject}
227 %   \hypersetup{%
228 %     pdftitle          = {\subject},
229 %     pdfauthor         = {\author},
230 %     pdfsubject        = {\subject},
231 %     pdfkeywords       = {\author, \subject},
232 %     pdflang           = de,
233 %     pdfdisplaydoctitle = true,
234 %     colorlinks        = true,
235 %     plainpages        = false,
236 %     hypertexnames     = false,
237 %     unicode,
238 %   }
239 % }}
```

240 ⟨/letter⟩

241 ⟨/cls⟩

242 ⟨*template⟩

# 5  Boilerplate / Template for letters

243 ⟨*letter-md⟩

244 `\documentclass{hu-berlin-letter}`

We predefine two variables.

```
245 \newkomavar{opening}
246 \newkomavar{closing}
247 \setkomavar{opening}{Sehr geehrte Damen und Herren}
248 \setkomavar{closing}{Mit freundlichen Grüßen}

249 $for(letteroption)$
250 \LoadLetterOption{$letteroption$}
251 $endfor$
252 $if(sender)$\LoadLetterOption{$sender$}$endif$
253 $if(addresseeimage)$\setkomavar{addresseeimage}{$addresseeimage$}$endif$
254 $if(backaddress)$\setkomavar{backaddress}{$backaddress$}\KOMAoptions{backaddress=t
255 $if(fromalign)$\KOMAoptions{fromalign=$fromalign$}$endif$
256 $if(customer)$\setkomavar{customer}{$customer$}$endif$
257 $if(date)$\setkomavar{date}{$date$}$endif$
258 $if(fromaddress)$\setkomavar{fromaddress}{$fromaddress$}$endif$
259 $if(frombank)$\setkomavar{frombank}{$frombank$}$endif$
260 $if(fromemail)$\setkomavar{fromemail}{$fromemail$}\KOMAoptions{fromemail=true}$endi
261 $if(fromfax)$\setkomavar{fromfax}{$fromfax$}\KOMAoptions{fromfax=true}$endif$
262 $if(fromlogo)$\setkomavar{fromlogo}{$fromlogo$}\KOMAoptions{fromlogo=true}$endif$
263 $if(frommobilephone)$\setkomavar{frommobilephone}{$frommobilephone$}\KOMAoptions{fr
264 $if(fromname)$\setkomavar{fromname}{$fromname$}$endif$
265 $if(fromphone)$\setkomavar{fromphone}{$fromphone$}\KOMAoptions{fromphone=true}$endi
266 $if(fromurl)$\setkomavar{fromurl}{$fromurl$}\KOMAoptions{fromurl=true}$endif$
267 $if(fromzipcode)$\setkomavar{fromzipcode}{$fromzipcode$}$endif$
268 $if(invoice)$\setkomavar{invoice}{$invoice$}$endif$
269 $if(location)$\setkomavar{location}{$location$}$endif$
270 $if(myref)$\setkomavar{myref}{$myref$}$endif$
271 $if(myrefname)$\setkomavar*{myref}{$myrefname$}$endif$
272 $if(place)$\setkomavar{place}{$place$}$endif$
273 $if(PPcode)$\setkomavar{PPcode}{$PPcode$}$endif$
274 $if(signature)$\setkomavar{signature}{$signature$}$endif$
275 $if(specialmail)$\setkomavar{specialmail}{$specialmail$}$endif$
276 $if(subject)$\setkomavar{subject}{$subject$}$endif$
277 $if(title)$\setkomavar{title}{$title$}$endif$
278 $if(yourmail)$\setkomavar{yourmail}{$yourmail$}$endif$
279 $if(yourref)$\setkomavar{yourref}{$yourref$}$endif$
280 $if(opening)$\setkomavar{opening}{$opening$}$endif$
281 $if(closing)$\setkomavar{closing}{$closing$}$endif$
282 $if(firstfoot)$\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.

```
283 $if(addressee)$
284 $else$
285 \KOMAoptions{addrfield=false}
286 $endif$
```

Now the actual content of the letter

```
287 \begin{document}
288 \begin{letter}{%
289 $for(addressee)$
290 $addressee$$sep$\\
291 $endfor$
292 }
293 $for(include-before)$
294 $include-before$
295 $endfor$
296 \opening{\usekomavar{opening}}
297 $body$
298 \closing{\usekomavar{closing}}
299 $if(ps)$\ps{$ps$}$endif$
300 $if(encl)$\encl{$encl$}$endif$
301 $for(include-after)$$include-after$$endfor$
302 \end{letter}
303 \end{document}
```

```
304 ⟨/letter-md⟩
305 ⟨/template⟩
```

# 6  Documentation preamble `<style>`

```
306 ⟨*sty⟩
307 ⟨*style⟩
308 \makeatletter
309 \addtolength\marginparwidth{-40pt}
310 \addtolength\marginparsep{4mm}
311 \addtolength\oddsidemargin{-20pt}
312 \addtolength\evensidemargin{-20pt}
313 \let\PrintDescribeMacro=\@gobble
314 \let\PrintDescribeEnv=\@gobble
315 %  \def\Describe@Macro#1{\endgroup
316 %      %\marginnote{\PrintDescribeMacro{#1}}%
317 %      \SpecialUsageIndex{#1}\@esphack\ignorespaces%
318 %      }
319 %\def\Describe@Env#1{\endgroup
320 %      %\marginnote{\PrintDescribeEnv{#1}}%
321 %      \SpecialEnvIndex{#1}\@esphack\ignorespaces%
322 %      }
323 \makeatother
324 \AtBeginDocument{\normalmarginpar}
325 \setlength\MacrocodeTopsep{.5\baselineskip}
326 \setlength\MacroIndent{6mm}
327
328
329 \RequirePackage{luatexbase}
330 \RequirePackage[ngerman,english]{babel}
331 \RequirePackage{calc}
332
333 \RequirePackage[
334   paper        = a4paper,   %  - use A4 paper size
335   foot         = 2cm,
336   inner        = 3cm,   %  - total body: left margin (odd pages)
337   top          = 3cm,   %  - total body: top margin
338   outer        = 3cm,   %  - total body: right margin (odd pages)
339   bottom       = 3cm,   %  - total body: bottom margin
340   marginparwidth = 2cm,   %  - width for side note
341   marginparsep  = .5cm,   %  - space between notes and body text (content)
342 %   showframe,
343 ]{geometry}
344
345 \newlength\fullwidth
346 \setlength\fullwidth{\textwidth+\marginparwidth+\marginparsep}
347
348 \KOMAoptions{
349 numbers      = noenddot,
350 }
351 \AtBeginDocument{
352   \KOMAoptions{
353 %  headwidth  = {\fullwidth},
354 %  footwidth  = {\fullwidth},
355 footheight = 20pt,
```

```
356 headheight = 29pt,
357 captions   = tableheading,
358 }}
359
360
361
362 \title{\huberlintitle}
363 %\subtitle{\huberlinsubtitle}
364 \author{\huberlinauthor}
365 \date{\Version}
366
367
368 %---- Required Packages
369 \RequirePackage{ifluatex,luatex85}
370 \ifx\directlua\relax
371   \let\directlua\UnDeFiNeD
372 \fi
373 \ifluatex
374 \else
375 \GenericError{hu-berlin}%
376 {Please use 'LuaLaTeX' as Compiler.^^J I abort here.}
377 \fi
```

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

```
378 \RequirePackage{fontspec}

379 \RequirePackage[mono=false]{libertine}
380 \RequirePackage{amssymb}
381
382 \defaultfontfeatures{%
383   Ligatures = TeX
384 ,Scale     = MatchLowercase
385 ,Numbers   = OldStyle
386 }
```

For fonts we use the available `TeX Gyre Pagella` as main font.[1]

```
387 \setmainfont[%
388   Ligatures = TeX
389 ,Numbers   = OldStyle]{TeX Gyre Pagella}
```

And we declare also the other fonts, too.

```
390 \setmonofont[Scale=1]{TeX Gyre Cursor}
391 \setsansfont[%
392  ,LetterSpace = .8]{TeX Gyre Adventor-Regular}
393 \linespread{1.05}

394 \newfontfamily\listingsfont[
395   Scale     = MatchLowercase,
396 ]{TeX Gyre Cursor}
397 \renewcommand\MacroFont{\listingsfont}
398
399 \RequirePackage{marginnote}
400 \renewcommand*{\marginfont}{%
```

---

**1** http://www.gust.org.pl/projects/e-foundry/tex-gyre

```
401    \rule{0pt}{0.7\baselineskip}%
402    \footnotesize%
403    \color{hu-berlin-brown}}
404
405 \RequirePackage[
406   german = guillemets,
407   style  = german,
408 ]{csquotes}
409
410 \RequirePackage{enumitem}
411 \setlist{
412   nosep,
413   % itemindent=1em,
414   % labelindent=0.5\parindent,
415   leftmargin=*}
416 \newlist{tabitemize}{itemize}{2}% neue Listenumgebung
417 \setlist[tabitemize]{%
418   nosep,
419   leftmargin=*
420  }
421 \setlist[tabitemize,1]{label=\labelitemi}
422 \setlist[tabitemize,2]{label=\labelitemii}
423
424
425 \clubpenalty=10000  % prevent single lines at the beginning of a paragraph (Schuste
426 \widowpenalty=10000  % prevent single lines at the end of a paragraph (Hurenkinder)
427 \displaywidowpenalty=10000     %
428
429 \RequirePackage{pdfpages}
430 \RequirePackage{biblatex}
431 \addbibresource{\jobname-bibliography.bib}
432 \addbibresource{\jobname-ctan.bib}
433 \RequirePackage{ccicons} %creative commons
434 \RequirePackage{xparse}
435 \RequirePackage{ragged2e}
436 \RequirePackage{microtype}
437 \RequirePackage{xspace}
438 \RequirePackage{graphicx}
439 \graphicspath{{img/}}

440 \RequirePackage{etoolbox}
441 %https://tex.stackexchange.com/a/235881/98739
442 \AfterEndPreamble{\maketitle}
443
444 % https://tex.stackexchange.com/a/401466/98739
445 \makeatletter
446 \renewcommand*{\maketitle}{%
447   % taken and shortened from /usr/share/texmf/tex/latex/koma-script/scrartcl.cls
448   \begin{titlepage}
449   \newgeometry{left=3cm,right=3cm,top=1.5cm,bottom=2cm}
450   \global\@topnum=\z@
451   \setparsizes{\z@}{\z@}{\z@\@plus 1fil}\par@updaterelative
452   \null
```

```
453     {\large\@author\hfill \href{mailto:lukas@texografie.de}{lukas@texografie.de}\par}
454   \vskip 10em%
455 {\begin{center}\color{hu-berlin-blue}
456 {\fontsize{50}{55}\selectfont\huberlinshort{} \par\vskip .5em%
457 \Large\sffamily\@title}\par
458 \vskip .5em
459 \end{center}}%
460 {\ifx\@subtitle\@empty\else\usekomafont{subtitle}\@subtitle\par\fi}%
461 \null\vskip 5em%
462 \blockcquote[195]{Hoare1973}{Documentation must be regarded as an integral part of
463  A good programming language will encourage and assist the programmer to write clea
464  self-documenting code,
465  and even perhaps to develop
466  and display a pleasant style
467  of writing.}
468 \null\vfill
469 {\usekomafont{subtitle}{\@date \hfill
470 \includegraphics[width=4cm]{texografie}\\}}%
471   \par
472   \vskip 0em
473     \restoregeometry
474     \end{titlepage}
475 }%
476 \makeatother
477
478 \RequirePackage{xcolor}
479 \definecolor{hu-berlin-blue}{RGB}{0,65,137} % HEX 004189
480 \definecolor{hu-berlin-green}{RGB}{150,190,20} % HEX 93C11A % Topoi
481 \definecolor{hu-berlin-grey}{RGB}{169,169,169}
482 \definecolor{hu-berlin-brown}{RGB}{82,79,60}
483 \definecolor{hu-berlin-red}{RGB}{180,0,0}
484
485
486 \RequirePackage{dirtree}
487 \renewcommand*\DTstylecomment{%
488   \color{hu-berlin-grey}%
489   \footnotesize%
490   \sffamily}
491 \renewcommand*\DTstyle{%
492   \ttfamily%
493   \small%
494   }
495
496 \RequirePackage[
497   markcase    = noupper,
498   footsepline = .5pt,
499   % headsepline = .5pt,
500   autooneside = false,% use left and right marks with a onesided document
501   automark,% set \leftmark and \rightmark automatically by *\section and \subsectio
502   draft  = false,
503   ]{scrlayer-scrpage}
504
505 \pagestyle{scrheadings}
```

```
506 \clearscrheadfoot
507 \rofoot*{\thepage}
508 \lofoot*{\textcolor{hu-berlin-blue}{\huberlintitle}\ \vrule\ \textcolor{hu-
    berlin-brown}{\huberlinsubtitle}}
509 \rohead*{hu-berlin-bundle}
510 \lohead*{Version: \Version}

511 % https://tex.stackexchange.com/a/352925/98739
512 \newcommand*\partnumber{}
513 \DeclareNewLayer[
514   background,
515   textarea,
516   addwidth=\marginparsep+\marginparwidth,
517   mode=picture,
518   contents={%
519 \putC{\makebox[opt][c]{\raisebox{-.5\height}{\scalebox{50}{\textcolor{black!5}{\par
520   }
521 ]{partnumber}
522 \DeclareNewPageStyleByLayers{part}{partnumber}
523 \renewcommand\partpagestyle{part}
524 \renewcommand*{\partformat}{\gdef\partnumber{\thepart}}
525
526 % only a dirty workaround for the part title
527 \newcommand*\changedpartwidth[1]{%
528   \makebox[\linewidth][l]{%
529 \parbox{\dimexpr\textwidth+\marginparsep+\marginparwidth\relax}{\raggedpart#1}%
530   }%
531 }
532 % add \changedpartwidth as last command to the settings for font element part
533 \addtokomafont{part}{\Huge\changedpartwidth}
534
535
536
537 %-https://tex.stackexchange.com/a/339516/98739 | https://tex.stackexchange.com/a/96
538 % footnotes in the footer:
539 \deffootnote%
540   %[\normalparindent]%<width of mark>
541   {0.0cm}%<indent of footnote text>
542   {\normalparindent}%<paragraph indent in the footnote text>
543   {\makebox[\normalparindent][r]%
544   {\thefootnotemark\hspace*{3pt}}}%<definition of mark>
545 \newlength{\normalparindent}
546 \AtBeginDocument{\setlength{\normalparindent}{\parindent}}
547 \setfootnoterule{opt}% Kein Fußnotenstrich
548 %\setfootnoterule[<height>]{<length>}
549
```

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

```
550 \renewcommand\sectionlinesformat[4]{%
551   \makebox[opt][r]{#3}#4%
552 }

553 \RequirePackage{url}
554 %  \urlstyle{same}
```

```
555
556 \setkomafont{title}{\sffamily\color{hu-berlin-blue}\flushleft\bfseries}
557 \setkomafont{disposition}{\color{hu-berlin-brown}\sffamily\bfseries\large}
558 \setkomafont{section}{\usekomafont{disposition}}
559 \setkomafont{subsection}{\usekomafont{disposition}}
560 \setkomafont{subsubsection}{\usekomafont{disposition}}
561 % \setkomafont{paragraph}{\bfseries}
562 % \setkomafont{subsubsection}{\sffamilybold}
563 \setkomafont{subtitle}{\large\color{hu-berlin-brown}\sffamily\flushleft}
564 \setkomafont{pageheadfoot}{\footnotesize\sffamily\color{hu-berlin-grey}}
565 \setkomafont{descriptionlabel}{\bfseries}
566 \setkomafont{footnotelabel}{\bfseries}
567 \addtokomafont{titlehead}{\flushright}
568 % \setkomafont{headsepline}{\color{hu-berlin-blue}}
569 %\setkomafont{marginnote}{\MakeUppercase\color{hu-berlin-brown}}
570 \addtokomafont{caption}{\scriptsize}
571 \setkomafont{captionlabel}{\bfseries\sffamily}
572 \setkomafont{subject}{\bfseries\sffamily}
573 \setcapindent{0pt}
574
575 \raggedbottom
576
577 \RequirePackage{listings}
578 \PassOptionsToPackage{final}{listings}
579 \RequirePackage[%
580     skins
581    ,listings
582    ,breakable
583    ,xparse
584    ,documentation
585 ]{tcolorbox}
586 \lstMakeShortInline[language=TeX,basicstyle=\ttfamily]|
```

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

```
587 \RequirePackage{hyperxmp}
588 \RequirePackage{hyperref}
589 \hypersetup{% setup the hyperref-package options
590    unicode     = true,
591    pdfauthor       = {hu-berlin}, %  - author (PDF meta)
592    pdfauthortitle     = {},
593    pdfcopyright  = {Copyright (c) \the\year . All rights reserved.},
594    pdfhighlight    = /N,
595    pdfdisplaydoctitle = true,
596    pdfdate    = {\today},
597    pdflang     = {},%de en
598    pdfcaptionwriter   = {Lukas C. Bossert},
599    pdfkeywords     = {hu-berlin},
600    pdfencoding     = auto,
601    pdfproducer     = {hu-berlin with LuaLaTeX},
602    bookmarksnumbered   = true,
603    bookmarksopenlevel = 2,
604    bookmarksopen   = true,
605    bookmarksdepth = 3,
```

```
606    colorlinks       = true,      %Colours links instead of ugly boxes
607    urlcolor         = hu-berlin-blue,     %Colour for external hyperlinks
608    linkcolor        = black,    %Colour of internal links
609    citecolor        = black,    %Colour of citations
610    linktoc          = page,
611    pdfborder        = {0 0 0},
612    breaklinks       = true,   %allow line break inside links
613    final
614 }
615 \RequirePackage{bookmark}
616
617 \RequirePackage[
618    sort,
619    nameinlink,
620    compress,
621    ngerman,english
622 ]{cleveref}
623
624
625 %---- newcommands
626 \newcommand{\TeXografie}{Lukas C. Bossert
627   (www.TeXografie.de)}
628 \newcommand\huberlin{\huberlintitle\xspace}
629
630
631 \newcommand\huberlinFolder{%
632   \begingroup%
633   \normalfont%
634   \color{hu-berlin-blue}%
635   % \faFolderOpen% taken from fontawesome
636   \hspace{.3em}%
637   \endgroup}
638
639
640
641 \RedeclareSectionCommands[
642   tocraggedpagenumber,
643   toclinefill=\tocpageseparator,
644   tocindent=0em,
645   tocnumwidth=4em,
646   tocpagenumberbox=\tocpagenumberbox% <- added
647 %  tocpagenumberformat=\textsf,
648 ]{chapter,section,subsection,subsubsection,paragraph}
649
650 \newcommand\tocgobble[1]{}% <- added
651 \newcommand\tocpageseparator{\footnotesize\,\mbox{---}\,}
652 \newcommand\tocpagenumberbox[1]{\mbox{#1}}% <- added
653 \KOMAoptions{toc=indentunnumbered}
654
655 \RedeclareSectionCommand[
656 %  tocbeforeskip=1.25em plus 1pt
657    ,tocentryformat=\large\scshape%
658    ,tocindent=0em
```

```
659     ,tocnumwidth=4em
660     ,tocpagenumberbox=\tocgobble% <- added
661 ]{part}
662 %\addtokomafont{partentry}{\scshape\sffamily\bfseries}
663
664 \RedeclareSectionCommand[%
665 %     ,beforeskip=1.15em plus 1pt%
666 ,tocentryformat=\textbf%
667     %    ,toclinefill={\TOCLineLeaderFill}%\TOCLineLeaderFill[\textbf{.}]
668 ]{chapter}
669
670
671
672
673 \newtcolorbox{example}[1][]{
674   breakable,
675   top=5pt,
676   bottom=5pt,
677   colback=hu-berlin-blue!10,
678   colframe=hu-berlin-blue,
679   left=5pt,
680   right=5pt,
681    sharp corners,
682   boxrule=0pt,
683   bottomrule=2pt,
684   toprule=2pt,
685    enhanced jigsaw,
686   lefttitle=0pt,
687    coltitle=white,
688    fonttitle=\bfseries,
689    fontupper=\small,%\ttfamily,
690   % colbacktitle=hu-berlin-blue!20
691   #1,
692 }
693
694 % Replace the squat-u symbol for spaces
695 % https://tex.stackexchange.com/a/488123/98739
696 \makeatletter
697 \def\lst@visiblespace{\lst@ttfamily{\char32}$\textcolor{hu-berlin-grey}{\cdot}$}
698 \makeatother
699
700
701 \lstset{%
702   basicstyle = \linespread{0.7}\listingsfont
703  ,breaklines = true
704  ,breakatwhitespace
705  ,alsoletter=\\\{\}\*\[\]\-
706  ,showstringspaces=true
707  }
708
709 \lstdefinestyle{hu-berlinlistingstyledef}{%
710   tabsize      = 4,
711   breaklines   = true,
```

```
712    breakatwhitespace = true,
713    postbreak=\mbox{$\hookrightarrow$},
714    %keepspaces    = true,
715    escapeinside = {(*@}{@*)},
716    moredelim     = {[is][\ttfamily\bfseries\color{hu-berlin-blue}]{|}{|}},
717    moredelim     = {[is][\ttfamily\bfseries\color{hu-berlin-blue}]{|1}{1|}},
718    moredelim     = {[is][\ttfamily\bfseries\color{hu-berlin-red}]{|2}{2|}},
719    aboveskip=0pt,
720    belowskip=0pt,
721    captionpos=b,
722    resetmargins=true,
723    sensitive=true,
724    upquote=true,
725    showspaces=true,
726    showtabs=true,
727    tab=\textcolor{hu-berlin-grey}{\rightarrowfill},
728    %numbers=left,
729    %numberstyle=\footnotesize\ttfamily\color{hu-berlin-grey},
730    comment       = [l]{\%},
731    commentstyle = \footnotesize\color{hu-berlin-grey}\addfontfeature{LetterSpace=.7
732    % deletecomment = [l]{\%<}
733    % morecomment  = [l][\nullfont]{\%<},
734    % deletecomment  = [is]{\%<}{>},
735 }
736
737 \lstdefinestyle{hu-berlinlistingstyle}{%
738    language   = {TeX},
739    style      = {hu-berlinlistingstyledef},
740 }
741
742
743
744
745
746
747 \tcbset{%
748 hu-berlinstyle/.style={%
749    enhanced,
750    before skip=2mm,
751    after skip=3mm,
752    boxrule=0.7pt,
753    left=2mm,
754    right=2mm,
755    top=2mm,
756    bottom=2mm,
757    sharp corners,
758    colback=white,
759    colbacklower=white,
760    % fonttitle=\sffamily\bfseries,
761    breakable,
762    %before skip=\baselineskip,
763    coltitle=white,
764    colbacktitle=hu-berlin-blue!50!black,
```

```
765    fonttitle=\bfseries\sffamily\footnotesize,
766    % before upper={\mynote{\thetcbcounter}},
767    title={\hfill{Example \thetcbcounter}},
768    },
769 codecomment/.style={%
770    listing outside comment,%
771    boxrule=0pt,
772    colback=white,
773    }
774 }
775
776 \newtcolorbox{warning}[1][]{
777    enhanced,
778    before skip=2mm,
779    after skip=3mm,
780    boxrule=0.7pt,
781    left=5mm,
782    right=2mm,
783    top=2mm,
784    bottom=2mm,
785    colback=white,
786    colframe=yellow!20!black,
787    sharp corners,
788    rounded corners=southeast,
789    arc is angular,
790    arc=3mm,
791    underlay={%
792 \path[fill=hu-berlin-grey!80!black] ([yshift=3mm]interior.south east)--
   ++(-0.4,-0.1)--++(0.1,-0.2);
793 \path[draw=hu-berlin-grey,shorten <=-0.05mm,shorten >=-0.05mm] ([yshift=3mm]interio
   ++(-0.4,-0.1)--++(0.1,-0.2);
794 \path[fill=red!50!black,draw=none] (interior.south west) rectangle node[white]{\Huge
795 },
796    drop fuzzy shadow,
797    #1
798    }
799
800 \newtcblisting[%
801    auto counter,
802    crefname   = {example}{examples},
803    Crefname   = {Example}{Examples},
804 ]{codetext}[2][]{%
805    hu-berlinstyle,
806 %  side text,
807    rounded corners=northeast,
808    arc=6mm,
809    listing style=hu-berlinlistingstyle,
810    label = #2,
811    #1,
812    }
813
814 \newtcblisting[%
815    use counter from=codetext,
```

```
816    crefname={code example}{code examples},
817    Crefname={Code example}{Code examples}%
818 ]{code}[2][]{%
819    hu-berlinstyle,
820    rounded corners=southeast,
821    arc=6mm,
822    listing only,
823    listing style=hu-berlinlistingstyle,
824    label = #2,
825    #1,
826 }
827
828
829 \DeclareTCBInputListing[%
830    use counter from=codetext,
831    crefname={code example}{code examples},
832    Crefname={Code example}{Code examples}%
833 ]{\huberlinlisting}{ O{} m }{%
834    hu-berlinstyle,
835    listing file={#2},
836    listing only,
837       listing style=hu-berlinlistingstyle,
838    #1,
839 }
840

841 \makeatletter
842 \newrobustcmd*{\fnurl}[1][]{\hyper@normalise\ltd@fnurl{#1}}
843 \def\ltd@fnurl#1#2{\footnote{#1\hyper@linkurl{\Hurl{#2}}{#2}}}
844 \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.

```
845 \RequirePackage{newfile}
846 \newoutputstream{pkglist}

847 \NewDocumentCommand{\pkg}{om}{%
848    \IfNoValueTF{#1}
849 {\lowercase{\href{http://www.ctan.org/pkg/#2}}{\textbf{#2}}}
850 {\lowercase{\href{http://www.ctan.org/pkg/#1-#2}}{\textbf{#2}}}%
851 \space\cite{#2}%
852 \addtostream{pkglist}{#2}}

853 \newrobustcmd*{\lit}[1]{\textsf{#1}}
854 \newrobustcmd*{\Code}[1]{\texttt{#1}}
855 \newrobustcmd*{\tex}{\TeX}
856 \newrobustcmd*{\etex}{\mbox{e-TeX}}
857 \newrobustcmd*{\pdftex}{pdf\-\tex}
858 \newrobustcmd*{\xetex}{Xe\-\tex}
859 \newrobustcmd*{\luatex}{Lua\-\tex}
860 \newrobustcmd*{\latex}{\LaTeX}%{La\kern-0.07em TeX}
861 \newrobustcmd*{\pdflatex}{pdf\-\latex}
```

---

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

```
862 \newrobustcmd*{\xelatex}{Xe\-\latex}
863 \newrobustcmd*{\lualatex}{Lua\-\latex}
864 \newrobustcmd*{\miktex}{Mik\-\tex}
865 \newrobustcmd*{\texlive}{\tex~live}
866 \newrobustcmd*{\bibtex}{Bib\kern-0.07em TeX}
867 \newrobustcmd*{\lppl}{\latex{} Project Public License}
868 \newrobustcmd*{\pdf}{{PDF}}
869 \newrobustcmd*{\md}{{MarkDown}}
870 \newrobustcmd*{\utf}{\mbox{{UTF}-8}}
871 % no \mbox here, we may have to break things
872 \newrobustcmd*{\bibfield}[1]{\Code{#1}}
873 \newrobustcmd*{\opt}[1]{\Code{#1}}
874 \newrobustcmd*{\bibmacro}[1]{\Code{#1}}
875 \newrobustcmd*{\bibtype}[1]{\Code{@#1}}
876 %\renewrobustcmd*{\cmd}[1]{\Code{\textbackslash #1}}
877 \renewrobustcmd\meta[1]{\normalfont{\textlangle}{\itshape#1\/}{\textrangle}}
878
879 % directly taken from ltxdoc.dtx
880 \renewrobustcmd\marg[1]{%
881   {\ttfamily\textcolor{hu-berlin-red}{\{}}%
882    \meta{#1}%
883   {\ttfamily\textcolor{hu-berlin-red}{\}}}%
884   }
885
886 \renewrobustcmd\oarg[1]{%
887   {\ttfamily\textcolor{hu-berlin-green}{[}}%
888    \meta{#1}%
889   {\ttfamily\textcolor{hu-berlin-green}{]}}%
890   }
891
892 % adapted from listings.dtx (lstdoc.sty)
893 \renewrobustcmd\cmd[1]{%
894   \texttt{\color{hu-berlin-blue}\textbackslash\string#1}\xspace%
895   }
896
897 \newrobustcmd\env[2][]{%
898   \texttt{%
899 \color{hu-berlin-blue}%
900 \textbackslash begin\{\string#2\}#1}%
901   \ldots
902   \texttt{%
903 \color{hu-berlin-blue}%
904 \textbackslash end\{\string#2\}}%
905   \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*⟩`}`.

```
906 \newcommand\param[1]{%
907   \begingroup%
908   \normalfont%
909   \ttfamily%
910   \bfseries%
911   \textless%
```

```
912    #1%
913    \ttfamily%
914    \bfseries%
915    \textgreater%
916    \endgroup}

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

946 ⟨/sty⟩
```

# Bibliography

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[2]   Charles Antony Richard Hoare. »Hints on programming language design«. In: *Computer Systems Reliability*. Ed. by C. Bu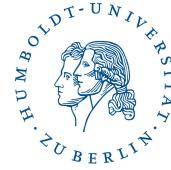nyan. State of the Art Report 20. 1973, pp. 193–216. URL: http://flint.cs.yale.edu/cs428/doc/HintsPL.pdf (visited on 09/06/2018).

[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 06/26/2019).

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[6]   Sebastian Rahtz and Heiko Oberdiek. *The Hyperref package. Extensive support for hypertext in LaTeX*. Version 6.88e. Nov. 30, 2018. URL: https://github.com/ho-tex/hyperref (visited on 06/26/2019).

[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 06/26/2019).

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Example files

# 7 Letter

## 7.1 From `.tex`

# HUMBOLDT-UNIVERSITÄT ZU BERLIN

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

**Philosophische Fakultät**

Institut für Briefvorlagen

Here you can add more text.

**Prof. Dr. Maike Musterfrau**
Dekanin

Erika Musterfrau
Musterweg 43
56789 Musterhausen

—

**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:**
26. 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
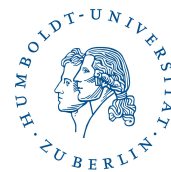max.mustermann@hu-berlin.de
www.hu-berlin.de

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

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

  **Eingang:**
Hausvogteiplatz

**Bankverbindung:**
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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
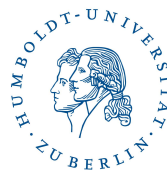

Prof. Dr. Maike Musterfrau – Dr. Max Mustermann


PS: …


Anlage: Anlage 1
             Anlage 2

Kopie an: Verteiler 1
               Verteiler 2

## 7.2 From `.md`

# HUMBOLDT-UNIVERSITÄT ZU BERLIN

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

**Philosophische Fakultät**

Institut für Briefvorlagen

Here you can add more text.

**Prof. Dr. Maike Musterfrau**
Dekanin

Alexander von Humboldt
Unter den Linden 6
10099 Berlin

**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:**
26. 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

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