

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]

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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
- base package (hu-berlin-base.sty)

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 v1.0.6 (2020-10-22)

- (letter) changed address separator
- (letter) fixed empty minipage when no metadata given
- (letter) changed default backaddress

1.2.2 v1.0.5 (2020-04-28)

- (general) Changed logo format to .pdf
- (letter) Changed \ifkomavareempty to \ifkomavarempy, fixes [github-issue nr. 1](#)

1.2.3 v1.0.4 (2019-12-19)

- Added `hu-berlin-base.sty` as a package which contains all relevant code for documents and documentclasses of the bundle.

1.2.4 v1.0.3 (2019-06-26)

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

1.2.5 v1.0.2 (2019-06-22)

Renaming files for CTAN compatability.

1.2.6 v1.0.1 (2019-06-21)

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

1.2.7 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-scrlltr2](#) is dual-licensed, under both the GPL (v2 or higher, same as pandoc) and the BSD 3-clause license (included below).

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2 Preamble

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

```

hu-berlin-bundle
├── hu-berlin-bundle.dtx ..... code and documentation
├── hu-berlin-bundle.pdf ..... documentation
├── hu-berlin-base.sty ..... basic components of the bundle
├── hu-berlin-letter-example-lualatex.tex ..... letter
├── hu-berlin-letter-example.lco ..... datafile for letter
├── hu-berlin-letter-example-lualatex.pdf ..... letter
├── hu-berlin-letter-example-markdown.pdf .... converted letter from markdown
├── hu-berlin-letter-example-markdown.md ..... example markdown file
├── hu-berlin-letter-template.latex ..... template for conversion
├── img ..... folder for images
│   ├── texografie-logo.pdf..... logo of maintainer
│   └── hu-berlin-logo.pdf..... 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.

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

Guideline for Users

1 `\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-example.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 too 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-example.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
20   Musterfrau}
21 \setkomavar{institute.head.mail}{maike.musterfrau@hu-berlin.de}
22 \setkomavar{local}{%
23   Mohrenstraße 40/41\\
24   Zimmer X\\
25   D-10117 Berlin}
26 \setkomavar{connections}{U Bahnhof Hausvogteiplatz (U2)}
27 \setkomavar{accessibility}{Hausvogteiplatz}
28 \setkomavar{signature}{%
29   \usekomavar{institute.head} --
30   \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-example}

```

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\par
50     Musterweg 43\par
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-example}
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\par
13   Musterweg 43\par
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-example`

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

81 `</letter-md>`

Here we close the example files.

82 $\langle /example \rangle$



Guide for Coders

1 `\<sty>`

4 hu-berlin-base-package

2 `\<base>`

Since we do want to compile with Lua^AT_EX, we make sure that it will be compilable only with that.

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

Now a fix.¹

```
4 \ifx\directlua\relax
5   \let\directlua\UnDeFiNeD
6 \fi

7 \ifluatex
8 \else
9 \GenericError{hu-berlin}%
10 {Please use 'LuaLaTeX' as Compiler.^J I abort here.}
11 \fi
```

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

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

Common package for handling figures is **graphicx** [1].

```
13 \RequirePackage{graphicx}
```

For loading fonts.

```
14 \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.

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

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

```
16 % \setmainfont{Verdana}
```

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

```
17 \RequirePackage{marvosym}
```

And we define various colors from the corporate design manual.

```
18 \RequirePackage{xcolor}
19 \definecolor{hu-berlin-blue}{RGB}{0, 65, 137}
20 \definecolor{hu-berlin-green}{RGB}{150, 190, 20}
21 \definecolor{hu-berlin-grey}{RGB}{169, 169, 169}
22 \definecolor{hu-berlin-brown}{RGB}{82, 79, 60}
```

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

```
23 \definecolor{hu-berlin-red}{RGB}{180,0,0}
```

That's all for the base package, so we close it.

```
24 \end{base}
```

```
25 \end{sty}
```

```
26 \end{cls}
```

5 Letter

```
27 \begin{letter}
```

We load `scrletter2` [4] which is the documentclass for letters. Furthermore we set up some options.

```
28 \LoadClass[%
29   fontsize=10pt,
30   version=last,
```

If there is anything to debug, you can enable visualize

```
31   % visualize
32 ]{scrletter2}
```

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

```
33 % \showfields{head, address, location, refline, foot}
```

Since all common and basic features of the bundle are located in a separate package we load that first.

```
34 \RequirePackage{hu-berlin-base}
```

To get the HU logo on the second and following pages we load `scrlayer-scrpage` [3].¹

```
35 \RequirePackage{scrlayer-scrpage}
36 \clearpairofpagestyles
37 \DeclareNewLayer[
38   foreground,
39   voffset=\useplength{firstheadvpos},
40   hoffset=\useplength{firstheadhpos},
41   width=\useplength{firstheadwidth},
42   mode=picture,
43   contents=\putUL{\raisebox{-\height}{\usekomavar{firsthead}}}]
44 ]{likefirstpage.head}
45 \AddLayersToPageStyle{scrheadings}{likefirstpage.head}
46 \DeclareNewLayer[
47   foreground,
```

¹ <https://tex.stackexchange.com/a/495258/98739>


```

48 align=r,
49 voffset=\useplength{locvpos},
50 hoffset=\paperwidth-\useplength{lochpos},
51 width=\useplength{locwidth},
52 height=\useplength{locheight},
53 contents=\usekomavar{nextlocation},
54 %pretoccontents=\layercontentsmeasure% to show the position of the layer
55 ]\likefirstpage.loc}
56 \AddLayersToPageStyle{scrheadings}{\likefirstpage.head,\likefirstpage.loc}

```

Now we apply the code for following pages.

```

57 \newkomavar{nextlocation}
58 \setkomavar{nextlocation}{%
59   \raggedright
60   \fontsize{7}{8.5}\selectfont
61   \pagemark
62 }

```

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

```

63 \RequirePackage{geometry}
64 \geometry{%
65   a4paper
66   , left           =25mm
67   , bottom         =16mm
68   , foot           =4mm
69   , top            =77mm
70   , headheight     =15pt
71   , textwidth      =117mm
72   , marginparsep   =0mm
73   , marginparwidth =0mm
74 }

```

Main Text and signature should be raggedright.

```

75 \renewcommand*{\raggedsignature}{\raggedright}
76 \raggedright

```

We also want to put the enclosures at the bottom of the page.²

```

77 \def\stopletter{}
78 \let\enclold\encl
79 \renewcommand\encl[1]{\vskip0ptplus1filll\enclold{#1}}

```

We define new komavars.

First the possibility to name the faculty,

```

80 \newkomavar{faculty}
81 \newkomafont{faculty}{\bfseries\fontsize{8.5}{10}\selectfont}

```

then the institute

```

82 \newkomavar{institute}
83 \newkomafont{institute}{\fontsize{8.5}{10}\selectfont}

```

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

and further fields for information.

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

We pass the name of the head of the institute.

```
85 \newkomafont{institute.head}{\bfseries}
```

```
86 \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.

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

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

```
88 \newkomavar{local}
```

```
89 \setkomavar*{local}{Sitz:}
```

and how to get there.

```
90 \newkomavar{connections}
```

```
91 \setkomavar*{connections}{Verkehrsverbindungen:}
```

Furthermore we inform about office hours

```
92 \newkomavar{officehours}
```

```
93 \setkomavar*{officehours}{Sprechzeiten:}
```

and if there is accessibility for wheelchairs etc.

```
94 \newkomavar{accessibility}
```

```
95 \setkomavar*{accessibility}{\large\reflectbox{\Wheelchair}} Eingang:}
```

```
96 \newkomavar{bank}
```

```
97 \setkomavar*{bank}{Bankverbindung:}
```

```
98 \setkomavar{bank}{Deutsche Bank PGK AG}
```

```
99 \newkomavar{IBAN}
```

```
100 \setkomavar{IBAN}{\mbox{IBAN DE95 1007 0848 0512 6206 01}}
```

```
101 \newkomavar{BIC}
```

```
102 \setkomavar{BIC}{BIC DEUTDEDB110}
```

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

```
103 \setkomavar{location}{%}
```

First anything regarding the font

```
104 \raggedright
```

```
105 \fontsize{7}{8.5}\selectfont
```

```
106 % \begin{macrocode}
```

```
107 % and for the section of faculty, institute etc. we use \env{minipage}
```

```
108 % \begin{macrocode}
```

```
109 \begin{minipage}[t][64mm]{\uselength{locwidth}}
```

then the faculty

```
110 \Ifkomavareempty{faculty}
```

This is a fake space to avoid any trouble if no custom metadata are given.

```
111 {\hspace*{1em}}
```

```
112 {\usekomafont{faculty}%
```

```
113 \usekomavar{faculty}\\[1\baselineskip]}
```

and the institute.

```
114 \Ifkomavareempty{institute}
115 {}
116 {\usekomafont{institute}\usekomavar{institute}\[1\baselineskip]}
```

Now anything else regarding the institute.

```
117 \Ifkomavareempty{institute.additional}
118 {}
119 {\usekomavar{institute.additional}\[1\baselineskip]}
```

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

```
120 \Ifkomavareempty{institute.head}
121 {}
122 {\{\usekomafont{institute.head}%
123 \usekomavar{institute.head}}\}%
124 \usekomavar*{institute.head}}
```

We close this section and the minipage.

```
125 \end{minipage}
```

Let's turn to further information.

For example date:

```
126 \textbf{\usekomavar*{date}}\
127 \usekomavar{date}\par
```

and the sender of the letter.

```
128 \Ifkomavareempty{fromname}
129 {}
130 {\textbf{\usekomavar*{fromname}}\
131 \usekomavar{fromname}\par}
```

And the reference of correspondence.

```
132 \Ifkomavareempty{myref}
133 {}
134 {\textbf{\usekomavar*{myref}}\
135 \usekomavar{myref}\par}
```

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

```
136 \Ifkomavareempty{yourref}
137 {}
138 {\textbf{\usekomavar*{yourref}}\
139 \usekomavar{yourref}\par}

140 \Ifkomavareempty{yourmail}
141 {}
142 {\textbf{\usekomavar*{yourmail}}\
143 \usekomavar{yourmail}\par}

144 \Ifkomavareempty{customer}
145 {}
146 {\textbf{\usekomavar*{customer}}\
147 \usekomavar{customer}\par}
```

```

148 \Ifkomavareempty{invoice}
149 {}
150 {\textbf{\usekomavar*{invoice}}}\
151 \usekomavar{invoice}\par

152 \textbf{\usekomavar*{fromaddress}}\
153 \usekomavar{fromaddress}
154 \Ifkomavareempty{fromphone}
155 {\par}
156 {\usekomavar*{fromphone}\usekomavar{fromphone}
157 \Ifkomavareempty{fromfax}
158 {\par}
159 {\}}
160 \Ifkomavareempty{fromfax}
161 {}
162 {\usekomavar*{fromfax}\usekomavar{fromfax}\par}

```

Next, emails and url:

```

163 \Ifkomavareempty{institute.head.mail}
164 {}
165 {\usekomavar{institute.head.mail}
166 \Ifkomavareempty{fromemail}
167 {\Ifkomavareempty{fromurl}
168 {\par}
169 {\}}
170 {\}}

171 \Ifkomavareempty{fromemail}
172 {}
173 {\usekomavar{fromemail}
174 \Ifkomavareempty{fromurl}
175 {\par}
176 {\}}

177 \Ifkomavareempty{fromurl}
178 {}
179 {\usekomavar{fromurl}\par}

```

Now the actual location of the sender

```

180 \Ifkomavareempty{local}
181 {}
182 {\textbf{\usekomavar*{local}}}\
183 \usekomavar{local}\par}

```

The last information section should be pinned to the bottom.

```
184 \vfill
```

Inform your addressee about the connection possibilities.

```

185 \Ifkomavareempty{connections}
186 {}

```

```

187 {\textbf{\usekomavar*{connections}}}\
188 \usekomavar{connections}\par}

189 \Ifkomavareempty{officehours}
190 {}
191 {\textbf{\usekomavar*{officehours}}}\
192 \usekomavar{officehours}\par}

```

If there is a barrier free entrance, tell it.

```

193 \Ifkomavareempty{accessibility}
194 {}
195 {\textbf{\usekomavar*{accessibility}}}\
196 \usekomavar{accessibility}\par}

```

And last the bank connection

```

197 \Ifkomavareempty{bank}
198 {}
199 {\textbf{\usekomavar*{bank}}}\
200 \usekomavar{bank}\
201 \usekomavar{IBAN}\
202 \usekomavar{BIC}
203 }

```

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

```

204 }

```

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

```

205 \KOMAOptions{%
206   numericaldate =true
207   ,refline      =nodate
208   ,backaddress  =plain
209   ,parskip      =half-
210 }

```

Redefining length.

```

211 \setlength{refvpos}{110mm}
212 \setlength{refaftervskip}{0pt}
213 \setlength{toaddrhpos}{25mm}
214 \setlength{firstheadhpos}{\useplength{toaddrhpos}}
215 \setlength{lochpos}{15mm}
216 \setlength{locvpos}{\useplength{toaddrvpos}}
217 \addtoplength{locvpos}{.75\baselineskip}
218 \setlength{locwidth}{45mm}
219 \setlength{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 guidelines.³

³ <https://www.hu-berlin.de/de/hu-intern/design/basiselemente/leitfaden-corporate-design-hu.pdf>

```

220 \setkomavar{firsthead}{%
221 \includegraphics[width=145mm]{hu-berlin-logo}%
222 }

223 \setkomavar{backaddressseparator}{~\textbar~}

224 \setkomavar{fromphone}{0000}
225 \setkomavar*{fromphone}{Telefon +49 [30] 2093-}

226 \setkomavar{fromfax}{0000}
227 \setkomavar*{fromfax}{Telefax +49 [30] 2093-}

228 \setkomavar*{fromaddress}{Postanschrift:}
229 \setkomavar{fromaddress}{%
230 Humboldt-Universität zu Berlin\\
231 Unter den Linden 6\\
232 D-10099 Berlin}

```

The default backaddress is slightly changed:

```

233 \setkomavar{backaddress}{%
234 Humboldt-Universität zu Berlin\\
235 UdL 6\\
236 D-10099 Berlin}

237 \setkomavar*{date}{Datum:}

238 \setkomavar*{fromname}{Bearbeiter:}

239 \setkomavar*{myref}{Geschäftszeichen:}

240 \setkomavar*{enclseparator}{Anlage}

241 \setkomavar*{ccseparator}{Kopie an}

242 % \RequirePackage{hyperref}
243 % \AtBeginDocument{{
244 % \usekomavar[\def\author]{fromname}
245 % \usekomavar[\def\subject]{subject}
246 % \hypersetup{%
247 % pdftitle = {\subject},
248 % pdfauthor = {\author},
249 % pdfsubject = {\subject},
250 % pdfkeywords = {\author, \subject},
251 % pdflang = de,
252 % pdfdisplaydoctitle = true,
253 % colorlinks = true,
254 % plainpages = false,
255 % hypertexnames = false,
256 % unicode,
257 % }
258 % }}

```

```

259 </letter>
260 </cls>
261 <*template>

```

6 Boilerplate / Template for letters

```

262 <*letter-md>
263 \documentclass{hu-berlin-letter}

```

We predefine two variables.

```

264 \newkomavar{opening}
265 \newkomavar{closing}
266 \setkomavar{opening}{Sehr geehrte Damen und Herren}
267 \setkomavar{closing}{Mit freundlichen Grüßen}

268 $for(letteroption)$
269 \LoadLetterOption{$letteroption$}
270 $endfor$
271 $if(sender)$\LoadLetterOption{$sender$}$endif$
272 $if(addresseeimage)$\setkomavar{addresseeimage}{$addresseeimage$}$endif$
273 $if(backaddress)$\setkomavar{backaddress}{$backaddress$}\KOMAOptions{backad
274 $if(fromalign)$\KOMAOptions{fromalign=$fromalign$}$endif$
275 $if(customer)$\setkomavar{customer}{$customer$}$endif$
276 $if(date)$\setkomavar{date}{$date$}$endif$
277 $if(fromaddress)$\setkomavar{fromaddress}{$fromaddress$}$endif$
278 $if(frombank)$\setkomavar{frombank}{$frombank$}$endif$
279 $if(fromemail)$\setkomavar{fromemail}{$fromemail$}\KOMAOptions{fromemail=tru
280 $if(fromfax)$\setkomavar{fromfax}{$fromfax$}\KOMAOptions{fromfax=true}$endi
281 $if(fromlogo)$\setkomavar{fromlogo}{$fromlogo$}\KOMAOptions{fromlogo=true}$
282 $if(frommobilephone)$\setkomavar{frommobilephone}{$frommobilephone$}\KOMAOpt
283 $if(fromname)$\setkomavar{fromname}{$fromname$}$endif$
284 $if(fromphone)$\setkomavar{fromphone}{$fromphone$}\KOMAOptions{fromphone=tru
285 $if(fromurl)$\setkomavar{fromurl}{$fromurl$}\KOMAOptions{fromurl=true}$endi
286 $if(fromzipcode)$\setkomavar{fromzipcode}{$fromzipcode$}$endif$
287 $if(invoice)$\setkomavar{invoice}{$invoice$}$endif$
288 $if(location)$\setkomavar{location}{$location$}$endif$
289 $if(myref)$\setkomavar{myref}{$myref$}$endif$
290 $if(myrefname)$\setkomavar*{myref}{$myrefname$}$endif$
291 $if(place)$\setkomavar{place}{$place$}$endif$
292 $if(PPcode)$\setkomavar{PPcode}{$PPcode$}$endif$
293 $if(signature)$\setkomavar{signature}{$signature$}$endif$
294 $if(specialmail)$\setkomavar{specialmail}{$specialmail$}$endif$

```

```

295 $if(subject)$\setkomavar{subject}{${subject$}}$endif$
296 $if(title)$\setkomavar{title}{${title$}}$endif$
297 $if(yourmail)$\setkomavar{yourmail}{${yourmail$}}$endif$
298 $if(yourref)$\setkomavar{yourref}{${yourref$}}$endif$
299 $if(opening)$\setkomavar{opening}{${opening$}}$endif$
300 $if(closing)$\setkomavar{closing}{${closing$}}$endif$
301 $if(firstfoot)$\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.

```

302 $if(addressee)$
303 $else$
304 \KOMAOPTIONS{addrfield=false}
305 $endif$

```

Now the actual content of the letter

```

306 \begin{document}
307 \begin{letter}{%

```



```

308 $for (addressee) $
309 $addressee$$sep$\\
310 $endfor$
311 }
312 $for (include-before) $
313 $include-before$
314 $endfor$
315 \opening{\usekomavar{opening}}
316 $body$
317 \closing{\usekomavar{closing}}
318 $if (ps) $\ps{$ps}$endif$
319 $if (encl) $\encl{$encl}$endif$
320 $for (include-after) $$include-after$$endfor$
321 \end{letter}
322 \end{document}

323 </letter-md>
324 </template>

```

7 Documentation preamble <style>

```

325 <*sty>
326 <*style>
327 \makeatletter
328 \addtolength\marginparwidth{-40pt}
329 \addtolength\marginparsep{4mm}
330 \addtolength\oddsidemargin{-20pt}
331 \addtolength\evensidemargin{-20pt}
332 \let\PrintDescribeMacro=\@gobble
333 \let\PrintDescribeEnv=\@gobble
334 % \def\Describe@Macro#1{\endgroup
335 %      %\marginnote{\PrintDescribeMacro{#1}}%
336 %      \SpecialUsageIndex{#1}\@esphack\ignorespaces%
337 %      }
338 %\def\Describe@Env#1{\endgroup
339 %      %\marginnote{\PrintDescribeEnv{#1}}%
340 %      \SpecialEnvIndex{#1}\@esphack\ignorespaces%
341 %      }
342 \makeatother
343 \AtBeginDocument{\normalmarginpar}
344 \setlength\MacrocodeTopsep{.5\baselineskip}
345 \setlength\MacroIndent{6mm}
346

```

```

347
348 \RequirePackage{luatexbase}
349 \RequirePackage[ngerman,english]{babel}
350 \RequirePackage{calc}
351
352 \RequirePackage[
353   paper      = a4paper, % - use A4 paper size
354   foot       = 2cm,
355   inner      = 3cm, % - total body: left margin (odd pages)
356   top        = 3cm, % - total body: top margin
357   outer      = 3cm, % - total body: right margin (odd pages)
358   bottom     = 3cm, % - total body: bottom margin
359   marginparwidth = 2cm, % - width for side note
360   marginparsep = .5cm, % - space between notes and body text (content)
361 % showframe,
362 ]{geometry}
363
364 \newlength\fullwidth
365 \setlength\fullwidth{\textwidth+\marginparwidth+\marginparsep}
366
367 \KOMAOptions{
368 numbers      = noenddot,
369 }
370 \AtBeginDocument{
371   \KOMAOptions{
372 % headwidth = {\fullwidth},
373 % footwidth = {\fullwidth},
374 footheight = 20pt,
375 headheight = 29pt,
376 captions   = tableheading,
377 }}
378
379
380
381 \title{\huberlintitle}
382 %\subtitle{\huberlinsubtitle}
383 \author{\huberlinauthor}
384 \date{\Version}
385
386
387 %---- Required Packages
388 \RequirePackage{ifluatex,luatex85}
389 \ifx\directlua\relax
390   \let\directlua\UnDeFiNeD
391 \fi
392 \ifluatex
393 \else

```

```

394 \GenericError{hu-berlin}%
395 {Please use 'LuaLaTeX' as Compiler.^^J I abort here.}
396 \fi

```

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

```

397 \RequirePackage{fontspec}

398 \RequirePackage[mono=false]{libertine}
399 \RequirePackage{amssymb}
400
401 \defaultfontfeatures{%
402   Ligatures = TeX
403 }

```

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

```

404 \setmainfont[%
405   Ligatures = TeX
406   ,Numbers   = OldStyle]{TeX Gyre Pagella}

```

And we declare also the other fonts, too.

```

407 \setmonofont[%
408   Scale=1
409 ]{TeX Gyre Cursor}
410 \setsansfont[%
411   ,LetterSpace = .8
412 ]{TeX Gyre Adventor-Regular}
413 \linespread{1.05}

414
415
416
417 \RequirePackage{marginnote}
418 \renewcommand*{\marginfont}{%
419   \rule{0pt}{0.7\baselineskip}%
420   \footnotesize%
421   \color{hu-berlin-brown}}
422
423 \RequirePackage[
424   german = guillemets,
425   style   = german,
426 ]{csquotes}
427
428 \RequirePackage{enumitem}
429 \setlist{
430   nosep,
431   % itemindent=1em,
432   % labelindent=0.5\parindent,
433   leftmargin=*}

```

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

```

434 \newlist{tabitemize}{itemize}{2}% neue Listenumgebung
435 \setlist[tabitemize]{%
436   nosep,
437   leftmargin=*
438 }
439 \setlist[tabitemize,1]{label=\labelitemi}
440 \setlist[tabitemize,2]{label=\labelitemii}
441
442
443 \clubpenalty=10000 % prevent single lines at the beginning of a paragraph
444 \widowpenalty=10000 % prevent single lines at the end of a paragraph (Huren
445 \displaywidowpenalty=10000 %
446
447 \RequirePackage{pdfpages}
448 \RequirePackage{biblatex}
449 \addbibresource{\jobname-bibliography.bib}
450 \addbibresource{\jobname-ctan.bib}
451 \RequirePackage{ccicons} %creative commons
452 \RequirePackage{xparse}
453 \RequirePackage{ragged2e}
454 \RequirePackage{microtype}
455 \RequirePackage{xspace}
456 \RequirePackage{graphicx}
457 \graphicspath{{img/}}

458 \RequirePackage{etoolbox}
459 %https://tex.stackexchange.com/a/235881/98739
460 \AfterEndPreamble{%
461   \maketitle
462   \renewcommand\MacroFont{\ttfamily}
463   \renewcommand\AltMacroFont{\ttfamily\linespread{.8}}% slanted verbatim
464 }
465
466 % https://tex.stackexchange.com/a/401466/98739
467 \makeatletter
468 \renewcommand*{\maketitle}{%
469   % taken and shortened from /usr/share/texmf/tex/latex/koma-script/scrartcl
470   \begin{titlepage}
471     \newgeometry{left=3cm,right=3cm,top=1.5cm,bottom=2cm}
472     \global\@topnum=\z@
473     \setparsizes{\z@}{\z@}{\z@\@plus 1fil}\par@updaterelative
474     \null
475     {\large\@author\hfill \href{mailto:lukas@texografie.de}{lukas@texografie.de}
476     \vskip 10em%
477     {\begin{center}\color{hu-berlin-blue}
478     {\fontsize{50}{55}\selectfont\huberlinshort{} \par\vskip .5em%
479 \Large\sffamily\@title}\par

```

```

480 \vskip .5em
481 \end{center}}}%
482 {\ifx\@subtitle\@empty\else\usekomafont{subtitle}\@subtitle\par\fi}%
483 \null\vskip 5em%
484 \blockcquote[195]{Hoare1973}{Documentation must be regarded as an integral p
485 A good programming language will encourage and assist the programmer to wr
486 self-documenting code,
487 and even perhaps to develop
488 and display a pleasant style
489 of writing.}
490 \null\vfill
491 {\usekomafont{subtitle}{\@date \hfill
492 \includegraphics[width=4cm]{img/texografie-logo.pdf}\\}}}%
493 \par
494 \vskip 0em
495 \restoregeometry
496 \end{titlepage}
497 }%
498 \makeatother
499
500 \RequirePackage{xcolor}
501 \definecolor{hu-berlin-blue}{RGB}{0,65,137} % HEX 004189
502 \definecolor{hu-berlin-green}{RGB}{150,190,20} % HEX 93C11A % Topoi
503 \definecolor{hu-berlin-grey}{RGB}{169,169,169}
504 \definecolor{hu-berlin-brown}{RGB}{82,79,60}
505 \definecolor{hu-berlin-red}{RGB}{180,0,0}
506
507
508 \RequirePackage{dirtree}
509 \renewcommand*{DTstylecomment}{%
510 \color{hu-berlin-grey}%
511 \footnotesize%
512 \sffamily}
513 \renewcommand*{DTstyle}{%
514 \ttfamily%
515 \small%
516 }
517
518 \RequirePackage[
519 markcase = noupper,
520 footsepline = .5pt,
521 % headsepline = .5pt,
522 autooneside = false,% use left and right marks with a onesided document
523 automark,% set \leftmark and \rightmark automatically by *\section and \s
524 draft = false,
525 ]{scrlayer-scrpage}
526

```

```

527 \pagestyle{scrheadings}
528 \clearscrheadfoot
529 \rofoot*{\thepage}
530 \lofoot*{\textcolor{hu-berlin-blue}{\huberlintitle}\ \vrule\ \textcolor{hu-berlin-brown}{\huberlinsubtitle}}
531 \rohead*{hu-berlin-bundle}
532 \lohead*{Version: \Version}

533 % https://tex.stackexchange.com/a/352925/98739
534 \newcommand*\partnumber{}
535 \DeclareNewLayer[
536   background,
537   textarea,
538   addwidth=\marginparsep+\marginparwidth,
539   mode=picture,
540   contents={%
541 \putC{\makebox[0pt][c]{\raisebox{-.5\height}{\scalebox{50}{\textcolor{black}{
542   }}}
543 ]{\partnumber}
544 \DeclareNewPageStyleByLayers{part}{\partnumber}
545 \renewcommand\partpagestyle{part}
546 \renewcommand*\partformat{\gdef\partnumber{\thepart}}
547
548 % only a dirty workaround for the part title
549 \newcommand*\changedpartwidth[1]{%
550   \makebox[\linewidth][l]{%
551 \parbox{\dimexpr\textwidth+\marginparsep+\marginparwidth\relax}{\raggedpart
552   }%
553 }
554 % add \changedpartwidth as last command to the settings for font element part
555 \addtokomafont{part}{\Huge\changedpartwidth}
556
557
558
559 %-https://tex.stackexchange.com/a/339516/98739 | https://tex.stackexchange.com/a/339516/98739
560 % footnotes in the footer:
561 \deffootnote%
562   %[\normalparindent]%<width of mark>
563   {0.0cm}%<indent of footnote text>
564   {\normalparindent}%<paragraph indent in the footnote text>
565   {\makebox[\normalparindent][r]%
566   {\thefootnotemark\hspace*{3pt}}}%<definition of mark>
567 \newlength{\normalparindent}
568 \AtBeginDocument{\setlength{\normalparindent}{\parindent}}
569 \setfootnoterule{0pt}% Kein Fußnotenstrich
570 %\setfootnoterule[<height>]{<length>}
571

```

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

```

572 \renewcommand\sectionlinesformat[4]{%
573   \makebox[0pt][r]{#3}#4%
574 }

575 \RequirePackage{url}
576 % \urlstyle{same}
577
578 \setkomafont{title}{\sffamily\color{hu-berlin-blue}\flushleft\bfseries}
579 \setkomafont{disposition}{\color{hu-berlin-brown}\sffamily\bfseries\large}
580 \setkomafont{section}{\usekomafont{disposition}}
581 \setkomafont{subsection}{\usekomafont{disposition}}
582 \setkomafont{subsubsection}{\usekomafont{disposition}}
583 % \setkomafont{paragraph}{\bfseries}
584 % \setkomafont{subsubsection}{\sffamilybold}
585 \setkomafont{subtitle}{\large\color{hu-berlin-brown}\sffamily\flushleft}
586 \setkomafont{pageheadfoot}{\footnotesize\sffamily\color{hu-berlin-
  grey}}
587 \setkomafont{descriptionlabel}{\bfseries}
588 \setkomafont{footnotelabel}{\bfseries}
589 \addtokomafont{titlehead}{\flushright}
590 % \setkomafont{headsepline}{\color{hu-berlin-blue}}
591 % \setkomafont{marginnote}{\MakeUppercase\color{hu-berlin-brown}}
592 \addtokomafont{caption}{\scriptsize}
593 \setkomafont{captionlabel}{\bfseries\sffamily}
594 \setkomafont{subject}{\bfseries\sffamily}
595 \setcapindent{0pt}
596
597 \raggedbottom
598
599 \RequirePackage{listings}
600 \PassOptionsToPackage{final}{listings}
601 \RequirePackage[%
602   skins
603   ,listings
604   ,breakable
605   ,xparse
606   ,documentation
607 ]{tcolorbox}
608 \lstMakeShortInline[language=TeX,basicstyle=\ttfamily]|

```

Following we load **hyperxmp** [6] and **hyperref** [8] for PDF-meta data and interactive linked text.

```

609 \RequirePackage{hyperxmp}
610 \RequirePackage{hyperref}
611 \hypersetup{% setup the hyperref-package options
612   unicode      = true,
613   pdfauthor    = {hu-berlin}, % - author (PDF meta)

```

```

614 pdfauthortitle      = {},
615 pdfcopyright        = {Copyright (c) \the\year . All rights reserved.},
616 pdfhighlight        = /N,
617 pdfdisplaydoctitle  = true,
618 pdflang             = {},%de en
619 pdfcaptionwriter    = {Lukas C. Bossert},
620 pdfkeywords         = {hu-berlin},
621 pdfencoding         = auto,
622 pdfproducer         = {hu-berlin with LuaLaTeX},
623 bookmarksnumbered   = true,
624 bookmarksopenlevel  = 2,
625 bookmarksopen       = true,
626 bookmarksdepth      = 3,
627 colorlinks          = true,      %Colours links instead of ugly boxes
628 urlcolor            = hu-berlin-blue, %Colour for external hyperlinks
629 linkcolor           = black,     %Colour of internal links
630 citecolor           = black,     %Colour of citations
631 linktoc             = page,
632 pdfborder           = {0 0 0},
633 breaklinks          = true,     %allow line break inside links
634 final
635 }
636 \RequirePackage{bookmark}
637
638 \RequirePackage[
639   sort,
640   nameinlink,
641   compress,
642   ngerman,english
643 ]{cleveref}
644
645
646 %---- newcommands
647 \newcommand{\TeXografie}{Lukas C. Bossert
648   (www.texografie.de) }
649 \newcommand\huberlin{\huberlintitle\hspace}
650
651
652 \newcommand\huberlinFolder{%
653   \begingroup%
654   \normalfont%
655   \color{hu-berlin-blue}%
656   % \faFolderOpen% taken from fontawesome
657   \hspace{.3em}%
658   \endgroup}
659
660

```



```

661
662 \RedeclareSectionCommands[
663   tocraggedpagenumber,
664   toclinefill=\tocpageseparator,
665   tocindent=0em,
666   tocnumwidth=4em,
667   tocpagenumberbox=\tocpagenumberbox% <- added
668 %   tocpagenumberformat=\textsf,
669 ]{chapter, section, subsection, subsubsection, paragraph}
670
671 \newcommand\tocgobble[1]{}% <- added
672 \newcommand\tocpageseparator{\footnotesize\,\mbox{---}\,, }
673 \newcommand\tocpagenumberbox[1]{\mbox{#1}}% <- added
674 \KOMAOptions{toc=indentunnumbered}
675
676 \RedeclareSectionCommand[
677 %   tocbeforeskip=1.25em plus 1pt
678   ,tocentryformat=\large\scshape%
679   ,tocindent=0em
680   ,tocnumwidth=4em
681   ,tocpagenumberbox=\tocgobble% <- added
682 ]{part}
683 %\addtokomafont{partentry}{\scshape\sffamily\bfseries}
684
685 \RedeclareSectionCommand[%
686 %   ,beforeskip=1.15em plus 1pt%
687 ,tocentryformat=\textbf%
688 %   ,toclinefill={\TOCLineLeaderFill}%\TOCLineLeaderFill[\textbf{.}]
689 ]{chapter}
690
691
692
693
694 \newtcolorbox{example}[1][]{
695   breakable,
696   top=5pt,
697   bottom=5pt,
698   colback=hu-berlin-blue!10,
699   colframe=hu-berlin-blue,
700   left=5pt,
701   right=5pt,
702   sharp corners,
703   boxrule=0pt,
704   bottomrule=2pt,
705   toprule=2pt,
706   enhanced jigsaw,
707   lefttitle=0pt,

```

```

708   coltitle=white,
709   fonttitle=\bfseries,
710   fontupper=\small,%\ttfamily,
711   % colbacktitle=hu-berlin-blue!20
712   #1,
713 }
714
715 % Replace the squat-u symbol for spaces
716 % https://tex.stackexchange.com/a/488123/98739
717 \makeatletter
718 \def\lst@visiblespace{\lst@ttfamily{\char32}$\textcolor{hu-berlin-
  grey}{\cdot}$}
719 \makeatother
720
721
722 \lstset{%
723   basicstyle = \linespread{0.7}\ttfamily
724   ,breaklines = true
725   ,breakatwhitespace
726   ,alsoletter=\\{\}\*\[\\]\-
727   ,showstringspaces=true
728 }
729
730 \lstdefinestyle{hu-berlinlistingstyledef}{%
731   tabsize      = 4,
732   breaklines   = true,
733   breakatwhitespace = true,
734   postbreak=\mbox{$\hookrightarrow$},
735   %keepspace    = true,
736   escapeinside = {(*@}{@*)},
737   moredelim    = {[is][\ttfamily\bfseries\color{hu-berlin-blue}]{|}{|}},
738   moredelim    = {[is][\ttfamily\bfseries\color{hu-berlin-blue}]{|1}{1|}},
739   moredelim    = {[is][\ttfamily\bfseries\color{hu-berlin-red}]{|2}{2|}},
740   aboveskip=0pt,
741   belowskip=0pt,
742   captionpos=b,
743   resetmargins=true,
744   sensitive=true,
745   upquote=true,
746   showspaces=true,
747   showtabs=true,
748   tab=\textcolor{hu-berlin-grey}{\rightarrowfill},
749   %numbers=left,
750   %numberstyle=\footnotesize\ttfamily\color{hu-berlin-grey},
751   comment      = [l]{\%},
752   commentstyle = \footnotesize\color{hu-berlin-grey}\addfontfeature{LetterSp
753   % deletecomment = [l]{\%<}

```

```

754 % morecomment = [l][\nullfont]{\%<},
755 % deletacomment = [is]{\%<}{>},
756 }
757
758 \lstdefinestyle{hu-berlinlistingstyle}{%
759   language = {TeX},
760   style      = {hu-berlinlistingstyledef},
761 }
762
763
764
765
766
767
768 \tcbset{%
769 hu-berlinstyle/.style={%
770   enhanced,
771   before skip=2mm,
772   after skip=3mm,
773   boxrule=0.7pt,
774   left=2mm,
775   right=2mm,
776   top=2mm,
777   bottom=2mm,
778   sharp corners,
779   colback=white,
780   colbacklower=white,
781   % fonttitle=\sffamily\bfseries,
782   breakable,
783   %before skip=\baselineskip,
784   coltitle=white,
785   colbacktitle=hu-berlin-blue!50!black,
786   fonttitle=\bfseries\sffamily\footnotesize,
787   % before upper={\mynote{\thetcbcounter}},
788   title={\hfill{Example \thetcbcounter}},
789   },
790 codecomment/.style={%
791   listing outside comment,%
792   boxrule=0pt,
793   colback=white,
794   }
795 }
796
797 \newtcolorbox{warning}[1][]{
798   enhanced,
799   before skip=2mm,
800   after skip=3mm,

```

```

801 boxrule=0.7pt,
802 left=5mm,
803 right=2mm,
804 top=2mm,
805 bottom=2mm,
806 colback=white,
807 colframe=yellow!20!black,
808 sharp corners,
809 rounded corners=southeast,
810 arc is angular,
811 arc=3mm,
812 underlay={%
813 \path[fill=hu-berlin-grey!80!black] ([yshift=3mm]interior.south east)--
      ++(-0.4,-0.1)--++(0.1,-0.2);
814 \path[draw=hu-berlin-grey,shorten <=-0.05mm,shorten >=-0.05mm] ([yshift=3mm]
      ++(-0.4,-0.1)--++(0.1,-0.2);
815 \path[fill=red!50!black,draw=none] (interior.south west) rectangle node[white]
816 },
817 drop fuzzy shadow,
818 #1
819 }
820
821 \newtcblisting[%
822 auto counter,
823 crefname = {example}{examples},
824 Crefname = {Example}{Examples},
825 ]{codetext}[2][]{%
826 hu-berlinstyle,
827 % side text,
828 rounded corners=northeast,
829 arc=6mm,
830 listing style=hu-berlinlistingstyle,
831 label = #2,
832 #1,
833 }
834
835 \newtcblisting[%
836 use counter from=codetext,
837 crefname={code example}{code examples},
838 Crefname={Code example}{Code examples}%
839 ]{code}[2][]{%
840 hu-berlinstyle,
841 rounded corners=southeast,
842 arc=6mm,
843 listing only,
844 listing style=hu-berlinlistingstyle,
845 label = #2,

```

```

846   #1,
847 }
848
849
850 \DeclareTCBInputListing[%
851   use counter from=codetext,
852   crefname={code example}{code examples},
853   Crefname={Code example}{Code examples}%
854 ]{\huberlinlisting}{ O{} m }{%
855   hu-berlinstyle,
856   listing file={#2},
857   listing only,
858   listing style=hu-berlinlistingstyle,
859   #1,
860 }
861
862 \makeatletter
863 \newrobustcmd*{\fnurl}[1][\hyper@normalise\ltd@fnurl{#1}]
864 \def\ltd@fnurl#1#2{\footnote{#1\hyper@linkurl{\Hurl{#2}}{#2}}}
865 \makeatother

```

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

```

866 \RequirePackage{newfile}
867 \newoutputstream{pkglist}

868 \NewDocumentCommand{\pkg}{om}{%
869   \IfNoValueTF{#1}
870   {\lowercase{\href{http://www.ctan.org/pkg/#2}}{\textbf{#2}}}
871   {\lowercase{\href{http://www.ctan.org/pkg/#1-#2}}{\textbf{#2}}}%
872   \space\cite{#2}%
873   \addtostream{pkglist}{#2}}

874 \newrobustcmd*{\lit}[1]{\textsf{#1}}
875 \newrobustcmd*{\Code}[1]{\texttt{#1}}
876 \newrobustcmd*{\tex}{\TeX}
877 \newrobustcmd*{\etex}{\mbox{e-TeX}}
878 \newrobustcmd*{\pdftex}{pdf-\tex}
879 \newrobustcmd*{\xetex}{Xe-\tex}
880 \newrobustcmd*{\luatex}{Lua-\tex}
881 \newrobustcmd*{\latex}{\LaTeX}%{La\kern-0.07em TeX}
882 \newrobustcmd*{\pdflatex}{pdf-\latex}
883 \newrobustcmd*{\xelatex}{Xe-\latex}
884 \newrobustcmd*{\lualatex}{Lua-\latex}
885 \newrobustcmd*{\miktex}{Mik-\tex}

```

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

```

886 \newrobustcmd*{\texlive}{\tex~live}
887 \newrobustcmd*{\bibtex}{Bib\kern-0.07em TeX}
888 \newrobustcmd*{\lppl}{\latex{} Project Public License}
889 \newrobustcmd*{\pdf}{{PDF}}
890 \newrobustcmd*{\md}{{Markdown}}
891 \newrobustcmd*{\utf}{\mbox{{UTF}-8}}
892 % no \mbox here, we may have to break things
893 \newrobustcmd*{\bibfield}[1]{\Code{#1}}
894 \newrobustcmd*{\opt}[1]{\Code{#1}}
895 \newrobustcmd*{\bibmacro}[1]{\Code{#1}}
896 \newrobustcmd*{\bibtype}[1]{\Code{@#1}}
897 %\renewrobustcmd*{\cmd}[1]{\Code{\textbackslash #1}}
898 \renewrobustcmd\meta[1]{\normalfont{\texttriangle}{\itshape#1\!/\!}{\texttriangle}}
899
900 % directly taken from ltxdoc.dtx
901 \renewrobustcmd\marg[1]{%
902   {\ttfamily\textcolor{hu-berlin-red}{\{\}}}%
903   \meta{#1}%
904   {\ttfamily\textcolor{hu-berlin-red}{\{\}}}%
905 }
906
907 \renewrobustcmd\oarg[1]{%
908   {\ttfamily\textcolor{hu-berlin-green}{\[\}}}%
909   \meta{#1}%
910   {\ttfamily\textcolor{hu-berlin-green}{\[\}}}%
911 }
912
913 % adapted from listings.dtx (lstdoc.sty)
914 \renewrobustcmd\cmd[1]{%
915   \texttt{\color{hu-berlin-blue}\textbackslash string#1}\xspace%
916 }
917
918 \newrobustcmd\env[2][\]{%
919   \texttt{%
920     \color{hu-berlin-blue}%
921     \textbackslash begin\{\string#2\}\#1}%
922     \ldots
923     \texttt{%
924       \color{hu-berlin-blue}%
925       \textbackslash end\{\string#2\}}%
926     \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>}`.

```

927 \newcommand\param[1]{%
928   \begingroup%
929   \normalfont%

```

```

930 \ttfamily%
931 \bfseries%
932 \textless%
933 #1%
934 \ttfamily%
935 \bfseries%
936 \textgreater%
937 \endgroup}

938 \pdfstringdefDisableCommands{%
939 \def\lstinline#1{<#1>}
940 \def\tex{TeX}%
941 \def\etex{e-TeX}%
942 \def\xetex{XeTeX}%
943 \def\latex{LaTeX}%
944 \def\xelatex{XeLaTeX}%
945 \def\bibtex{BibTeX}%
946 \def\lppl{LaTeX Project Public License}%
947 \def\pdf{PDF}%
948 \def\utf{UTF-8}%
949 \def\{\}%
950 \def\texttt#1{<#1>}%
951 \def\marg#1{\{#1\}}%
952 \def\oarg#1{[#1]}%
953 \def\color#1#2{}%
954 \def\env#1{<#1>}
955 \def\cmd#1{#1}
956 }
957 % https://tex.stackexchange.com/a/24067/98739
958 \makeatletter
959 \patchcmd{\scr@startchapter}{\if@openright\cleardoublepage\else\clearpage\fi}{}{}{}
960 \makeatother
961 %
962 \RequirePackage[tightLists=false]{markdown}
963 \markdownSetup{rendererPrototypes={%
964 link = {\href{#3}{#1}}}%
965 }}
966 </style>

967 </sty>

```

References

- [1] David Carlisle and The LaTeX Team. *The Graphicx package. Enhanced support for graphics.* Version 1.2b. Sept. 9, 2020. URL: <http://www.ctan.org/pkg/graphicx> (visited on 10/22/2020).
- [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 3.32. URL: <http://www.komascript.de/> (visited on 10/22/2020).
 - [4] Markus Kohm. *The Scrlttr2 package. Koma-Script 'letter' class*. Version 3.30. Apr. 19, 2020. URL: <http://www.komascript.de/> (visited on 10/22/2020).
 - [5] Mojca Miklavec, Martin Vogel, and Thomas Henlich. *The Marvosym package. Martin Vogel's Symbols (marvosym) font*. Version 2.2a. URL: <http://www.marvosym.de> (visited on 10/22/2020).
 - [6] Scott Pakin. *The Hyperxmp package. Embed XMP metadata within a LaTeX document*. Version 5.6. URL: <http://www.ctan.org/pkg/hyperxmp> (visited on 10/22/2020).
 - [7] Will Robertson. *The Fontspec package. Advanced font selection in XeLaTeX and LuaLaTeX*. Version 2.7i. URL: <http://www.ctan.org/pkg/fontspec> (visited on 10/22/2020).
 - [8] The LaTeX Team, Sebastian Rahtz, and Heiko Oberdiek. *The Hyperref package. Extensive support for hypertext in LaTeX*. Version 7.00e. May 15, 2020. URL: <https://github.com/latex3/hyperref> (visited on 10/22/2020).
 - [9] Hideo Umeki and David Carlisle. *The Geometry package. Flexible and complete interface to document dimensions*. Version 5.9. Jan. 2, 2020. URL: <http://www.ctan.org/pkg/geometry> (visited on 10/22/2020).



Example files

8 Letter

8.1 From **.tex**

HUMBOLDT-UNIVERSITÄT ZU BERLIN



Humboldt-Universität zu Berlin | Udl. 6 | D-10099 Berlin

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.

Philosophische Fakultät**Institut für Briefvorlagen**

Here you can add more text.

Prof. Dr. Maike Musterfrau
Dekanin

Datum:
22.10.2020

Wissenschaftlicher Mitarbeiter
Dr. Max Mustermann

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IBAN DE95 1007 0648 0512 6206 01
BIC DEUTDE33110

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

8.2 From `.md`

HUMBOLDT-UNIVERSITÄT ZU BERLIN



Humboldt-Universität zu Berlin | Udl. 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
Dekanin

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:
22.10.2020

Wissenschaftlicher Mitarbeiter
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