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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]

2019/12/19 v1.0.4

\tex[o]{g r a fi e}
Advanced Text &
Data Processing

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`
- 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 v1.0.5 (2020-01-XX)

- Changed logo format to `.pdf`

1.2.2 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.

1.2.3 v1.0.3 (2019-06-26)

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

1.2.4 v1.0.2 (2019-06-22)

Renaming files for CTAN compatability.

1.2.5 v1.0.1 (2019-06-21)

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

1.2.6 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).

OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

2 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-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.

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 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-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
      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-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   ---
 2   documentclass: hu-berlin-letter
 3   sender: hu-berlin-letter-example
 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⟩

Guide for Coders

1 ⟨*sty⟩

4 hu-berlin-base-package

2 ⟨*base⟩

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

```
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** [9]

```
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 ⟨/base⟩
```

```
25 ⟨/sty⟩
```

```
26 ⟨*cls⟩
```

5 Letter

```
27 ⟨*letter⟩
```

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

For debugging also uncomment the `\showfields{⟨fields⟩}` commanand.
```
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  %pretocontents=\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** [1].

```
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 `komavar`s.

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]{\useplength{locwidth}}
```

then the faculty

```
110   {\usekomafont{faculty}%
111    \usekomavar{faculty}\\[1\baselineskip]}
```

and the institute.

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

Now anything else regarding the institute.

```
113 \ifkomavarempty{institute.additional}
114   {}
115   {\usekomavar{institute.additional}\\[1\baselineskip]}
```

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

```
116 \ifkomavarempty{institute.head}
117   {}
118   {{\usekomafont{institute.head}%
119    \usekomavar{institute.head}}\\%
120    \usekomavar*{institute.head}}
```

We close this section and the minipage.

```
121   \end{minipage}
```

Let's turn to further information.

```
      For example date:
122      \textbf{\usekomavar*{date}}\\
123      \usekomavar{date}\par
```

and the sender of the letter.

```
124 \ifkomavarempty{fromname}
125   {}
126   {\textbf{\usekomavar*{fromname}}\\
127    \usekomavar{fromname}\par}
```

And the reference of correspondence.

```
128 \ifkomavarempty{myref}
129   {}
130   {\textbf{\usekomavar*{myref}}\\
131    \usekomavar{myref}\par}
```

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

```
132 \ifkomavarempty{yourref}
133   {}
134   {\textbf{\usekomavar*{yourref}}\\
135    \usekomavar{yourref}\par}
```

```
136 \ifkomavarempty{yourmail}
137   {}
138   {\textbf{\usekomavar*{yourmail}}\\
139    \usekomavar{yourmail}\par}
```

```
140 \ifkomavarempty{customer}
141   {}
142   {\textbf{\usekomavar*{customer}}\\
143    \usekomavar{customer}\par}
```

```
144 \ifkomavarempty{invoice}
145   {}
146   {\textbf{\usekomavar*{invoice}}\\
```

```
147    \usekomavar{invoice}\par}

148    \textbf{\usekomavar*{fromaddress}}\\
149    \usekomavar{fromaddress}
150    \ifkomavarempty{fromphone}
151      {\par}
152      {\\\usekomavar*{fromphone}\usekomavar{fromphone}
153       \ifkomavarempty{fromfax}
154      {\par}
155      {\\}}
156    \ifkomavarempty{fromfax}
157      {}
158      {\usekomavar*{fromfax}\usekomavar{fromfax}\par}
```

Next, emails and url:

```
159 \ifkomavarempty{institute.head.mail}
160    {}
161    {\usekomavar{institute.head.mail}
162    \ifkomavarempty{fromemail}
163    {\ifkomavarempty{fromurl}
164     {\par}
165     {\\}}
166    {\\}}

167 \ifkomavarempty{fromemail}
168    {}
169    {\usekomavar{fromemail}
170    \ifkomavarempty{fromurl}
171    {\par}
172    {\\}}

173 \ifkomavarempty{fromurl}
174    {}
175    {\usekomavar{fromurl}\par}
```

Now the actual location of the sender

```
176 \ifkomavarempty{local}
177    {}
178    {\textbf{\usekomavar*{local}}\\
179    \usekomavar{local}\par}
```

The last information section should be pinned to the bottom.

```
180 \vfill
```

Inform your addressee about the connection possibilities.

```
181 \ifkomavarempty{connections}
182    {}
183    {\textbf{\usekomavar*{connections}}\\
184    \usekomavar{connections}\par}

185 \ifkomavarempty{officehours}
```

```
186    { }
187    {\textbf{\usekomavar*{officehours}}}\\
188    \usekomavar{officehours}\par}
```

If there is a barrier free entrance, tell it.
```
189 \ifkomavarempty{accessibility}
190    { }
191    {\textbf{\usekomavar*{accessibility}}}\\
192    \usekomavar{accessibility}\par}
```

And last the bank connection
```
193 \ifkomavarempty{bank}
194    { }
195    {\textbf{\usekomavar*{bank}}}\\
196    \usekomavar{bank}\\
197    \usekomavar{IBAN}\\
198    \usekomavar{BIC}
199    }
```

Finally we close \setkomavar{⟨*location*⟩}
```
200 }
```

To fulfill the Corporate Design rules we adjust a few things.
```
201 \KOMAoptions{%
202    numericaldate =true
203   ,refline       =nodate
204   ,backaddress   =plain
205   ,parskip       =half-
206 }
```

Redefining length.
```
207 \setplength{refvpos}{110mm}
208 \setplength{refaftervskip}{0pt}
209 \setplength{toaddrhpos}{25mm}
210 \setplength{firstheadhpos}{\useplength{toaddrhpos}}
211 \setplength{lochpos}{15mm}
212 \setplength{locvpos}{\useplength{toaddrvpos}}
213 \addtoplength{locvpos}{.75\baselineskip}
214 \setplength{locwidth}{45mm}
215 \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.[3]
```
216 \setkomavar{firsthead}{%
217 \includegraphics[width=145mm]{hu-berlin-logo}%
218 }
```

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

```
219 \setkomavar{backaddressseparator}{~\textbar~}

220 \setkomavar{fromphone}{0000}
221 \setkomavar*{fromphone}{Telefon +49 [30] 2093-}

222 \setkomavar{fromfax}{0000}
223 \setkomavar*{fromfax}{Telefax +49 [30] 2093-}

224 \setkomavar*{fromaddress}{Postanschrift:}
225 \setkomavar{fromaddress}{%
226   Humboldt-Universität zu Berlin\par
227   Unter den Linden 6\par
228   D-10099 Berlin}

229 \setkomavar*{date}{Datum:}

230 \setkomavar*{fromname}{Bearbeiter:}

231 \setkomavar*{myref}{Geschäftszeichen:}

232 \setkomavar*{enclseparator}{Anlage}

233 \setkomavar*{ccseparator}{Kopie an}

234 % \RequirePackage{hyperref}
235 % \AtBeginDocument{{
236 %   \usekomavar[\def\author]{fromname}
237 %   \usekomavar[\def\subject]{subject}
238 %   \hypersetup{%
239 %     pdftitle          = {\subject},
240 %     pdfauthor         = {\author},
241 %     pdfsubject        = {\subject},
242 %     pdfkeywords       = {\author, \subject},
243 %     pdflang           = de,
244 %     pdfdisplaydoctitle = true,
245 %     colorlinks        = true,
246 %     plainpages        = false,
247 %     hypertexnames     = false,
248 %     unicode,
249 %   }
250 % }}

251 ⟨/letter⟩

252 ⟨/cls⟩

253 ⟨∗template⟩
```

6 Boilerplate / Template for letters

₂₅₄ ⟨*letter-md⟩

₂₅₅ \documentclass{hu-berlin-letter}

We predefine two variables.

₂₅₆ \newkomavar{opening}
₂₅₇ \newkomavar{closing}
₂₅₈ \setkomavar{opening}{Sehr geehrte Damen und Herren}
₂₅₉ \setkomavar{closing}{Mit freundlichen Grüßen}

₂₆₀ $for(letteroption)$
₂₆₁ \LoadLetterOption{$letteroption$}
₂₆₂ $endfor$
₂₆₃ $if(sender)$\LoadLetterOption{$sender$}$endif$
₂₆₄ $if(addresseeimage)$\setkomavar{addresseeimage}{$addresseeimage$}$endif$
₂₆₅ $if(backaddress)$\setkomavar{backaddress}{$backaddress$}\KOMAoptions{backadd
₂₆₆ $if(fromalign)$\KOMAoptions{fromalign=$fromalign$}$endif$
₂₆₇ $if(customer)$\setkomavar{customer}{$customer$}$endif$
₂₆₈ $if(date)$\setkomavar{date}{$date$}$endif$
₂₆₉ $if(fromaddress)$\setkomavar{fromaddress}{$fromaddress$}$endif$
₂₇₀ $if(frombank)$\setkomavar{frombank}{$frombank$}$endif$
₂₇₁ $if(fromemail)$\setkomavar{fromemail}{$fromemail$}\KOMAoptions{fromemail=tru
₂₇₂ $if(fromfax)$\setkomavar{fromfax}{$fromfax$}\KOMAoptions{fromfax=true}$endi
₂₇₃ $if(fromlogo)$\setkomavar{fromlogo}{$fromlogo$}\KOMAoptions{fromlogo=true}$e
₂₇₄ $if(frommobilephone)$\setkomavar{frommobilephone}{$frommobilephone$}\KOMAopt
₂₇₅ $if(fromname)$\setkomavar{fromname}{$fromname$}$endif$
₂₇₆ $if(fromphone)$\setkomavar{fromphone}{$fromphone$}\KOMAoptions{fromphone=tru
₂₇₇ $if(fromurl)$\setkomavar{fromurl}{$fromurl$}\KOMAoptions{fromurl=true}$endi
₂₇₈ $if(fromzipcode)$\setkomavar{fromzipcode}{$fromzipcode$}$endif$
₂₇₉ $if(invoice)$\setkomavar{invoice}{$invoice$}$endif$
₂₈₀ $if(location)$\setkomavar{location}{$location$}$endif$
₂₈₁ $if(myref)$\setkomavar{myref}{$myref$}$endif$
₂₈₂ $if(myrefname)$\setkomavar*{myref}{$myrefname$}$endif$
₂₈₃ $if(place)$\setkomavar{place}{$place$}$endif$
₂₈₄ $if(PPcode)$\setkomavar{PPcode}{$PPcode$}$endif$
₂₈₅ $if(signature)$\setkomavar{signature}{$signature$}$endif$
₂₈₆ $if(specialmail)$\setkomavar{specialmail}{$specialmail$}$endif$
₂₈₇ $if(subject)$\setkomavar{subject}{$subject$}$endif$
₂₈₈ $if(title)$\setkomavar{title}{$title$}$endif$
₂₈₉ $if(yourmail)$\setkomavar{yourmail}{$yourmail$}$endif$
₂₉₀ $if(yourref)$\setkomavar{yourref}{$yourref$}$endif$
₂₉₁ $if(opening)$\setkomavar{opening}{$opening$}$endif$
₂₉₂ $if(closing)$\setkomavar{closing}{$closing$}$endif$
₂₉₃ $if(firstfoot)$\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.

```
294 $if(addressee)$
295 $else$
296 \KOMAoptions{addrfield=false}
297 $endif$
```

Now the actual content of the letter

```
298 \begin{document}
299 \begin{letter}{%
300 $for(addressee)$
301 $addressee$$sep$\par
302 $endfor$
303 }
304 $for(include-before)$
305 $include-before$
306 $endfor$
307 \opening{\usekomavar{opening}}
308 $body$
```

```
309 \closing{\usekomavar{closing}}
310 $if(ps)$\ps{$ps$}$endif$
311 $if(encl)$\encl{$encl$}$endif$
312 $for(include-after)$$include-after$$endfor$
313 \end{letter}
314 \end{document}

315 ⟨/letter-md⟩
316 ⟨/template⟩
```

7 Documentation preamble `<style>`

```
317 ⟨*sty⟩
318 ⟨*style⟩
319 \makeatletter
320 \addtolength\marginparwidth{-40pt}
321 \addtolength\marginparsep{4mm}
322 \addtolength\oddsidemargin{-20pt}
323 \addtolength\evensidemargin{-20pt}
324 \let\PrintDescribeMacro=\@gobble
325 \let\PrintDescribeEnv=\@gobble
326 % \def\Describe@Macro#1{\endgroup
327 %      %\marginnote{\PrintDescribeMacro{#1}}%
328 %      \SpecialUsageIndex{#1}\@esphack\ignorespaces%
329 %      }
330 %\def\Describe@Env#1{\endgroup
331 %      %\marginnote{\PrintDescribeEnv{#1}}%
332 %      \SpecialEnvIndex{#1}\@esphack\ignorespaces%
333 %      }
334 \makeatother
335 \AtBeginDocument{\normalmarginpar}
336 \setlength\MacrocodeTopsep{.5\baselineskip}
337 \setlength\MacroIndent{6mm}
338
339
340 \RequirePackage{luatexbase}
341 \RequirePackage[ngerman,english]{babel}
342 \RequirePackage{calc}
343
344 \RequirePackage[
345   paper      = a4paper,  % – use A4 paper size
346   foot       = 2cm,
347   inner      = 3cm,  % – total body: left margin (odd pages)
```

```
348  top          = 3cm,  %  - total body: top margin
349  outer        = 3cm,  %  - total body: right margin (odd pages)
350  bottom       = 3cm,  %  - total body: bottom margin
351  marginparwidth = 2cm,   %  - width for side note
352  marginparsep  = .5cm,   %  - space between notes and body text (content)
353 %  showframe,
354 ]{geometry}
355
356 \newlength\fullwidth
357 \setlength\fullwidth{\textwidth+\marginparwidth+\marginparsep}
358
359 \KOMAoptions{
360 numbers      = noenddot,
361 }
362 \AtBeginDocument{
363   \KOMAoptions{
364 % headwidth  = {\fullwidth},
365 % footwidth  = {\fullwidth},
366 footheight = 20pt,
367 headheight = 29pt,
368 captions   = tableheading,
369 }}
370
371
372
373 \title{\huberlintitle}
374 %\subtitle{\huberlinsubtitle}
375 \author{\huberlinauthor}
376 \date{\Version}
377
378
379 %---- Required Packages
380 \RequirePackage{ifluatex,luatex85}
381 \ifx\directlua\relax
382   \let\directlua\UnDeFiNeD
383 \fi
384 \ifluatex
385 \else
386 \GenericError{hu-berlin}%
387 {Please use 'LuaLaTeX' as Compiler.^^J I abort here.}
388 \fi
```

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

```
389 \RequirePackage{fontspec}

390 \RequirePackage[mono=false]{libertine}
391 \RequirePackage{amssymb}
392
```

```
393 \defaultfontfeatures{%
394    Ligatures = TeX
395 }
```

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

```
396 \setmainfont[%
397     Ligatures = TeX
398   ,Numbers   = OldStyle]{TeX Gyre Pagella}
```

And we declare also the other fonts, too.

```
399 \setmonofont[%
400    Scale=1
401 ]{TeX Gyre Cursor}
402 \setsansfont[%
403    ,LetterSpace = .8
404 ]{TeX Gyre Adventor-Regular}
405 \linespread{1.05}
406
407
408
409 \RequirePackage{marginnote}
410 \renewcommand*{\marginfont}{%
411    \rule{0pt}{0.7\baselineskip}%
412    \footnotesize%
413    \color{hu-berlin-brown}}
414
415 \RequirePackage[
416    german = guillemets,
417    style  = german,
418 ]{csquotes}
419
420 \RequirePackage{enumitem}
421 \setlist{
422    nosep,
423    % itemindent=1em,
424    % labelindent=0.5\parindent,
425    leftmargin=*}
426 \newlist{tabitemize}{itemize}{2}% neue Listenumgebung
427 \setlist[tabitemize]{%
428    nosep,
429    leftmargin=*
430  }
431 \setlist[tabitemize,1]{label=\labelitemi}
432 \setlist[tabitemize,2]{label=\labelitemii}
433
434
```

---

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

```
435 \clubpenalty=10000   % prevent single lines at the beginning of a paragraph
436 \widowpenalty=10000   % prevent single lines at the end of a paragraph (Hurer
437 \displaywidowpenalty=10000     %
438
439 \RequirePackage{pdfpages}
440 \RequirePackage{biblatex}
441 \addbibresource{\jobname-bibliography.bib}
442 \addbibresource{\jobname-ctan.bib}
443 \RequirePackage{ccicons} %creative commons
444 \RequirePackage{xparse}
445 \RequirePackage{ragged2e}
446 \RequirePackage{microtype}
447 \RequirePackage{xspace}
448 \RequirePackage{graphicx}
449 \graphicspath{{img/}}

450 \RequirePackage{etoolbox}
451 %https://tex.stackexchange.com/a/235881/98739
452 \AfterEndPreamble{%
453    \maketitle
454    \renewcommand\MacroFont{\ttfamily}
455    \renewcommand\AltMacroFont{\ttfamily\linespread{.8}}% slanted verbatim
456 }
457
458 % https://tex.stackexchange.com/a/401466/98739
459 \makeatletter
460 \renewcommand*{\maketitle}{%
461    % taken and shortened from /usr/share/texmf/tex/latex/koma-script/scrartc
462    \begin{titlepage}
463    \newgeometry{left=3cm,right=3cm,top=1.5cm,bottom=2cm}
464    \global\@topnum=\z@
465    \setparsizes{\z@}{\z@}{\z@\@plus 1fil}\par@updaterelative
466    \null
467     {\large\@author\hfill \href{mailto:lukas@texografie.de}{lukas@texografie.de}
468    \vskip 10em%
469 {\begin{center}\color{hu-berlin-blue}
470 {\fontsize{50}{55}\selectfont\huberlinshort{} \par\vskip .5em%
471 \Large\sffamily\@title}\par
472 \vskip .5em
473 \end{center}}%
474 {\ifx\@subtitle\@empty\else\usekomafont{subtitle}\@subtitle\par\fi}%
475 \null\vskip 5em%
476 \blockcquote[195]{Hoare1973}{Documentation must be regarded as an integral p
477  A good programming language will encourage and assist the programmer to wri
478  self-documenting code,
479  and even perhaps to develop
480  and display a pleasant style
```

```
481  of writing.}
482 \null\vfill
483 {\usekomafont{subtitle}{\@date \hfill
484 \includegraphics[width=4cm]{texografie-logo}\\}}%
485   \par
486  \vskip 0em
487   \restoregeometry
488   \end{titlepage}
489 }%
490 \makeatother
491
492 \RequirePackage{xcolor}
493 \definecolor{hu-berlin-blue}{RGB}{0,65,137} % HEX 004189
494 \definecolor{hu-berlin-green}{RGB}{150,190,20} % HEX 93C11A % Topoi
495 \definecolor{hu-berlin-grey}{RGB}{169,169,169}
496 \definecolor{hu-berlin-brown}{RGB}{82,79,60}
497 \definecolor{hu-berlin-red}{RGB}{180,0,0}
498
499
500 \RequirePackage{dirtree}
501 \renewcommand*\DTstylecomment{%
502   \color{hu-berlin-grey}%
503   \footnotesize%
504   \sffamily}
505 \renewcommand*\DTstyle{%
506   \ttfamily%
507   \small%
508   }
509
510 \RequirePackage[
511   markcase    = noupper,
512   footsepline = .5pt,
513   % headsepline = .5pt,
514   autooneside = false,% use left and right marks with a onesided document
515   automark,% set \leftmark and \rightmark automatically by *\section and \su
516   draft  = false,
517   ]{scrlayer-scrpage}
518
519 \pagestyle{scrheadings}
520 \clearscrheadfoot
521 \rofoot*{\thepage}
522 \lofoot*{\textcolor{hu-berlin-blue}{\huberlintitle}\ \vrule\ \textcolor{hu-
   berlin-brown}{\huberlinsubtitle}}
523 \rohead*{hu-berlin-bundle}
524 \lohead*{Version: \Version}

525 % https://tex.stackexchange.com/a/352925/98739
```

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

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

```
564 \renewcommand\sectionlinesformat[4]{%
565   \makebox[0pt][r]{#3}#4%
566 }
567 \RequirePackage{url}
568 %  \urlstyle{same}
569
570 \setkomafont{title}{\sffamily\color{hu-berlin-blue}\flushleft\bfseries}
```

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

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

```
601 \RequirePackage{hyperxmp}
602 \RequirePackage{hyperref}
603 \hypersetup{% setup the hyperref-package options
604   unicode    = true,
605   pdfauthor       = {hu-berlin}, %  - author (PDF meta)
606   pdfauthortitle    = {},
607   pdfcopyright  = {Copyright (c) \the\year . All rights reserved.},
608   pdfhighlight   = /N,
609   pdfdisplaydoctitle = true,
610   pdflang    = {},%de en
611   pdfcaptionwriter   = {Lukas C. Bossert},
612   pdfkeywords   = {hu-berlin},
613   pdfencoding    = auto,
```

```
614   pdfproducer      = {hu-berlin with LuaLaTeX},
615   bookmarksnumbered  = true,
616   bookmarksopenlevel = 2,
617   bookmarksopen   = true,
618   bookmarksdepth = 3,
619   colorlinks      = true,    %Colours links instead of ugly boxes
620   urlcolor        = hu-berlin-blue,    %Colour for external hyperlinks
621   linkcolor       = black,   %Colour of internal links
622   citecolor       = black,   %Colour of citations
623   linktoc         = page,
624   pdfborder       = {0 0 0},
625   breaklinks      = true,  %allow line break inside links
626   final
627 }
628 \RequirePackage{bookmark}
629
630 \RequirePackage[
631   sort,
632   nameinlink,
633   compress,
634   ngerman,english
635 ]{cleveref}
636
637
638 %---- newcommands
639 \newcommand{\TeXografie}{Lukas C. Bossert
640   (www.texografie.de)}
641 \newcommand\huberlin{\huberlintitle\xspace}
642
643
644 \newcommand\huberlinFolder{%
645   \begingroup%
646   \normalfont%
647   \color{hu-berlin-blue}%
648   % \faFolderOpen% taken from fontawesome
649   \hspace{.3em}%
650   \endgroup}
651
652
653
654 \RedeclareSectionCommands[
655   tocraggedpagenumber,
656   toclinefill=\tocpageseparator,
657   tocindent=0em,
658   tocnumwidth=4em,
659   tocpagenumberbox=\tocpagenumberbox% <- added
660 %  tocpagenumberformat=\textsf,
```

```
661 ]{chapter,section,subsection,subsubsection,paragraph}
662
663 \newcommand\tocgobble[1]{}% <- added
664 \newcommand\tocpageseparator{\footnotesize\,\mbox{---}\,}
665 \newcommand\tocpagenumberbox[1]{\mbox{#1}}% <- added
666 \KOMAoptions{toc=indentunnumbered}
667
668 \RedeclareSectionCommand[
669 %   tocbeforeskip=1.25em plus 1pt
670     ,tocentryformat=\large\scshape%
671     ,tocindent=0em
672     ,tocnumwidth=4em
673     ,tocpagenumberbox=\tocgobble% <- added
674 ]{part}
675 %\addtokomafont{partentry}{\scshape\sffamily\bfseries}
676
677 \RedeclareSectionCommand[%
678 %     ,beforeskip=1.15em plus 1pt%
679 ,tocentryformat=\textbf%
680   %   ,toclinefill={\TOCLineLeaderFill}%\TOCLineLeaderFill[\textbf{.}]
681 ]{chapter}
682
683
684
685
686 \newtcolorbox{example}[1][]{
687   breakable,
688   top=5pt,
689   bottom=5pt,
690   colback=hu-berlin-blue!10,
691   colframe=hu-berlin-blue,
692   left=5pt,
693   right=5pt,
694    sharp corners,
695   boxrule=0pt,
696   bottomrule=2pt,
697   toprule=2pt,
698    enhanced jigsaw,
699   lefttitle=0pt,
700    coltitle=white,
701    fonttitle=\bfseries,
702    fontupper=\small,%\ttfamily,
703   % colbacktitle=hu-berlin-blue!20
704   #1,
705 }
706
707 % Replace the squat-u symbol for spaces
```

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

```
754
755
756
757
758
759
760 \tcbset{%
761 hu-berlinstyle/.style={%
762     enhanced,
763     before skip=2mm,
764     after skip=3mm,
765     boxrule=0.7pt,
766     left=2mm,
767     right=2mm,
768     top=2mm,
769     bottom=2mm,
770     sharp corners,
771     colback=white,
772     colbacklower=white,
773     % fonttitle=\sffamily\bfseries,
774     breakable,
775     %before skip=\baselineskip,
776     coltitle=white,
777     colbacktitle=hu-berlin-blue!50!black,
778     fonttitle=\bfseries\sffamily\footnotesize,
779     % before upper={\mynote{\thetcbcounter}},
780     title={\hfill{Example \thetcbcounter}},
781     },
782 codecomment/.style={%
783     listing outside comment,%
784     boxrule=0pt,
785     colback=white,
786     }
787 }
788
789 \newtcolorbox{warning}[1][]{
790     enhanced,
791     before skip=2mm,
792     after skip=3mm,
793     boxrule=0.7pt,
794     left=5mm,
795     right=2mm,
796     top=2mm,
797     bottom=2mm,
798     colback=white,
799     colframe=yellow!20!black,
800     sharp corners,
```

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

```
846 ]{\huberlinlisting}{ O{} m }{%
847   hu-berlinstyle,
848   listing file={#2},
849   listing only,
850     listing style=hu-berlinlistingstyle,
851   #1,
852 }
853
854 \makeatletter
855 \newrobustcmd*{\fnurl}[1][]{\hyper@normalise\ltd@fnurl{#1}}
856 \def\ltd@fnurl#1#2{\footnote{#1\hyper@linkurl{\Hurl{#2}}{#2}}}
857 \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.

```
858 \RequirePackage{newfile}
859 \newoutputstream{pkglist}
860 \NewDocumentCommand{\pkg}{om}{%
861   \IfNoValueTF{#1}
862 {\lowercase{\href{http://www.ctan.org/pkg/#2}}{\textbf{#2}}}
863 {\lowercase{\href{http://www.ctan.org/pkg/#1-#2}}{\textbf{#2}}}%
864 \space\cite{#2}%
865 \addtostream{pkglist}{#2}}
866 \newrobustcmd*{\lit}[1]{\textsf{#1}}
867 \newrobustcmd*{\Code}[1]{\texttt{#1}}
868 \newrobustcmd*{\tex}{\TeX}
869 \newrobustcmd*{\etex}{\mbox{e-TeX}}
870 \newrobustcmd*{\pdftex}{pdf\-\tex}
871 \newrobustcmd*{\xetex}{Xe\-\tex}
872 \newrobustcmd*{\luatex}{Lua\-\tex}
873 \newrobustcmd*{\latex}{\LaTeX}%{La\kern-0.07em TeX}
874 \newrobustcmd*{\pdflatex}{pdf\-\latex}
875 \newrobustcmd*{\xelatex}{Xe\-\latex}
876 \newrobustcmd*{\lualatex}{Lua\-\latex}
877 \newrobustcmd*{\miktex}{Mik\-\tex}
878 \newrobustcmd*{\texlive}{\tex~live}
879 \newrobustcmd*{\bibtex}{Bib\kern-0.07em TeX}
880 \newrobustcmd*{\lppl}{\latex{} Project Public License}
881 \newrobustcmd*{\pdf}{{PDF}}
882 \newrobustcmd*{\md}{{MarkDown}}
883 \newrobustcmd*{\utf}{\mbox{{UTF}-8}}
884 % no \mbox here, we may have to break things
885 \newrobustcmd*{\bibfield}[1]{\Code{#1}}
```

---

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

```
886 \newrobustcmd*{\opt}[1]{\Code{#1}}
887 \newrobustcmd*{\bibmacro}[1]{\Code{#1}}
888 \newrobustcmd*{\bibtype}[1]{\Code{@#1}}
889 %\renewrobustcmd*{\cmd}[1]{\Code{\textbackslash #1}}
890 \renewrobustcmd\meta[1]{\normalfont{\textlangle}{\itshape#1\/}{\textrangle}
891
892 % directly taken from ltxdoc.dtx
893 \renewrobustcmd\marg[1]{%
894   {\ttfamily\textcolor{hu-berlin-red}{\{}}%
895     \meta{#1}%
896   {\ttfamily\textcolor{hu-berlin-red}{\}}}%
897   }
898
899 \renewrobustcmd\oarg[1]{%
900   {\ttfamily\textcolor{hu-berlin-green}{[}}%
901     \meta{#1}%
902   {\ttfamily\textcolor{hu-berlin-green}{]}}%
903   }
904
905 % adapted from listings.dtx (lstdoc.sty)
906 \renewrobustcmd\cmd[1]{%
907   \texttt{\color{hu-berlin-blue}\textbackslash\string#1}\xspace%
908   }
909
910 \newrobustcmd\env[2][]{%
911   \texttt{%
912 \color{hu-berlin-blue}%
913 \textbackslash begin\{\string#2\}#1}%
914   \ldots
915   \texttt{%
916 \color{hu-berlin-blue}%
917 \textbackslash end\{\string#2\}}%
918   \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*`⟩}`.

```
919 \newcommand\param[1]{%
920   \begingroup%
921   \normalfont%
922   \ttfamily%
923   \bfseries%
924   \textless%
925   #1%
926   \ttfamily%
927   \bfseries%
928   \textgreater%
929   \endgroup}
```

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

959 ⟨/sty⟩
```

Bibliography

[1] David Carlisle and Hideo Umeki. *The Geometry package. Flexible and complete interface to document dimensions*. Version 5.8. URL: http://www.ctan.org/pkg/geometry (visited on 12/27/2019).

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

[3] Markus Kohm. *The Scrlayer-scrpage package. Define and manage page styles*. Version 3.27. Oct. 12, 2019. URL: http://www.komascript.de/ (visited on 12/27/2019).

[4] Markus Kohm. *The Scrlttr2 package. Koma-Script 'letter' class*. Version 3.27. Oct. 12, 2019. URL: http://www.komascript.de/ (visited on 12/27/2019).

[5] Heiko Oberdiek, The LaTeX Team, and Sebastian Rahtz. *The Hyperref package. Extensive support for hypertext in LaTeX*. Version 7.00c. Nov. 10, 2019. URL: https://github.com/latex3/hyperref (visited on 12/27/2019).

[6] Scott Pakin. *The Hyperxmp package. Embed XMP metadata within a LaTeX document*. Version 4.1. URL: http://www.ctan.org/pkg/hyperxmp (visited on 12/27/2019).

[7] Will Robertson. *The Fontspec package. Advanced font selection in XeLaTeX and LuaLaTeX*. Version 2.7d. URL: http://www.ctan.org/pkg/fontspec (visited on 12/27/2019).

[8] The LaTeX Team and David Carlisle. *The Graphicx package. Enhanced support for graphics*. Version 1.1a. June 1, 2017. URL: http://www.ctan.org/pkg/graphicx (visited on 12/27/2019).

[9] Martin Vogel, Mojca Miklavec, and Thomas Henlich. *The Marvosym package. Martin Vogel's Symbols (marvosym) font*. Version 2.2a. URL: http://www.marvosym.de (visited on 12/27/2019).

Example files

8 Letter

8.1 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:
27. 12. 2019
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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

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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:
27. 12. 2019

Wissenschaftlicher Mitarbeiter
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