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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]

2020/10/29 v1.0.7a

texografie
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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 v1.0.7 (2020/10/29)

- (letter) fixed missing `\removereffields`
- (letter) added missing suffix for hu-logo (`.pdf`)

1.2.2 v1.0.6 (2020-10-22)

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

1.2.3 v1.0.5 (2020-04-28)

- (general) Changed logo format to `.pdf`
- (letter) Changed `\ifkomavarempty` to `\ifkomavarempty`, fixes github-issue nr. 1

1.2.4 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.

1.2.5 v1.0.3 (2019-06-26)

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

1.2.6 v1.0.2 (2019-06-22)

Renaming files for CTAN compatability.

1.2.7 v1.0.1 (2019-06-21)

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

1.2.8 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).

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AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY,
OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT
OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH
DAMAGE.

2 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⟩

II

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 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]{\useplength{locwidth}}
```

then the faculty

```
110 \Ifkomavarempty{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 \Ifkomavarempty{institute}
115   {}
116   {\usekomafont{institute}\usekomavar{institute}\\[1\baselineskip]}
```

Now anything else regarding the institute.
```
117 \Ifkomavarempty{institute.additional}
118   {}
119   {\usekomavar{institute.additional}\\[1\baselineskip]}
```

What follows is the head of institute and its position name.
```
120 \Ifkomavarempty{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 \Ifkomavarempty{fromname}
129   {}
130   {\textbf{\usekomavar*{fromname}}\\
131    \usekomavar{fromname}\par}
```

And the reference of correspondence.
```
132 \Ifkomavarempty{myref}
133   {}
134   {\textbf{\usekomavar*{myref}}\\
135    \usekomavar{myref}\par}
```

To complete this template we provide the possibility to name further reference fields.
```
136 \Ifkomavarempty{yourref}
137   {}
138   {\textbf{\usekomavar*{yourref}}\\
139    \usekomavar{yourref}\par}

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

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

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

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

Next, emails and url:

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

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

177 \Ifkomavarempty{fromurl}
178  {}
179  {\usekomavar{fromurl}\par}
```

Now the actual location of the sender

```
180 \Ifkomavarempty{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 \Ifkomavarempty{connections}
186  {}
```

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

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

If there is a barrier free entrance, tell it.

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

And last the bank connection

```
197 \Ifkomavarempty{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 }
```

Getting rid of all other fields and their default position.

```
211 \removereffields
```

Redefining length.

```
212 \setplength{refvpos}{110mm}
213 \setplength{refaftervskip}{0pt}
214 \setplength{toaddrhpos}{25mm}
215 \setplength{firstheadhpos}{\useplength{toaddrhpos}}
216 \setplength{lochpos}{15mm}
217 \setplength{locvpos}{\useplength{toaddrvpos}}
218 \addtoplength{locvpos}{.75\baselineskip}
219 \setplength{locwidth}{45mm}
220 \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] You need to replace the dummy-file `hu-berlin-logo.pdf` with the actual logo of the Humboldt-Universität zu Berlin. It can be downloaded here: http://zope.hu-berlin. de/hu-intern/design/downloads/logo

```
221 \setkomavar{firsthead}{%
222  \includegraphics[width=145mm]{hu-berlin-logo.pdf}%
223 }

224 \setkomavar{backaddressseparator}{~\textbar~}

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

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

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

The default backaddress is slightly changed:

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

238 \setkomavar*{date}{Datum:}

239 \setkomavar*{fromname}{Bearbeiter:}

240 \setkomavar*{myref}{Geschäftszeichen:}

241 \setkomavar*{enclseparator}{Anlage}

242 \setkomavar*{ccseparator}{Kopie an}

243 % \RequirePackage{hyperref}
244 % \AtBeginDocument{{
245 %   \usekomavar[\def\author]{fromname}
246 %   \usekomavar[\def\subject]{subject}
247 %   \hypersetup{%
248 %     pdftitle          = {\subject},
249 %     pdfauthor         = {\author},
250 %     pdfsubject        = {\subject},
251 %     pdfkeywords       = {\author, \subject},
252 %     pdflang           = de,
```

---

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

```
253 %      pdfdisplaydoctitle = true,
254 %      colorlinks         = true,
255 %      plainpages         = false,
256 %      hypertexnames      = false,
257 %      unicode,
258 %    }
259 % }}
```

260 ⟨/letter⟩

261 ⟨/cls⟩

262 ⟨*template⟩

6 Boilerplate / Template for letters

263 ⟨*letter-md⟩

264 \documentclass{hu-berlin-letter}

We predefine two variables.
```
265 \newkomavar{opening}
266 \newkomavar{closing}
267 \setkomavar{opening}{Sehr geehrte Damen und Herren}
268 \setkomavar{closing}{Mit freundlichen Grüßen}
```

```
269 $for(letteroption)$
270 \LoadLetterOption{$letteroption$}
271 $endfor$
272 $if(sender)$\LoadLetterOption{$sender$}$endif$
273 $if(addresseeimage)$\setkomavar{addresseeimage}{$addresseeimage$}$endif$
274 $if(backaddress)$\setkomavar{backaddress}{$backaddress$}\KOMAoptions{backad
275 $if(fromalign)$\KOMAoptions{fromalign=$fromalign$}$endif$
276 $if(customer)$\setkomavar{customer}{$customer$}$endif$
277 $if(date)$\setkomavar{date}{$date$}$endif$
278 $if(fromaddress)$\setkomavar{fromaddress}{$fromaddress$}$endif$
279 $if(frombank)$\setkomavar{frombank}{$frombank$}$endif$
280 $if(fromemail)$\setkomavar{fromemail}{$fromemail$}\KOMAoptions{fromemail=tru
281 $if(fromfax)$\setkomavar{fromfax}{$fromfax$}\KOMAoptions{fromfax=true}$endi
282 $if(fromlogo)$\setkomavar{fromlogo}{$fromlogo$}\KOMAoptions{fromlogo=true}$e
283 $if(frommobilephone)$\setkomavar{frommobilephone}{$frommobilephone$}\KOMAopt
284 $if(fromname)$\setkomavar{fromname}{$fromname$}$endif$
285 $if(fromphone)$\setkomavar{fromphone}{$fromphone$}\KOMAoptions{fromphone=tru
286 $if(fromurl)$\setkomavar{fromurl}{$fromurl$}\KOMAoptions{fromurl=true}$endi
287 $if(fromzipcode)$\setkomavar{fromzipcode}{$fromzipcode$}$endif$
```

```
288 $if(invoice)$\setkomavar{invoice}{$invoice$}$endif$
289 $if(location)$\setkomavar{location}{$location$}$endif$
290 $if(myref)$\setkomavar{myref}{$myref$}$endif$
291 $if(myrefname)$\setkomavar*{myref}{$myrefname$}$endif$
292 $if(place)$\setkomavar{place}{$place$}$endif$
293 $if(PPcode)$\setkomavar{PPcode}{$PPcode$}$endif$
294 $if(signature)$\setkomavar{signature}{$signature$}$endif$
295 $if(specialmail)$\setkomavar{specialmail}{$specialmail$}$endif$
296 $if(subject)$\setkomavar{subject}{$subject$}$endif$
297 $if(title)$\setkomavar{title}{$title$}$endif$
298 $if(yourmail)$\setkomavar{yourmail}{$yourmail$}$endif$
299 $if(yourref)$\setkomavar{yourref}{$yourref$}$endif$
300 $if(opening)$\setkomavar{opening}{$opening$}$endif$
301 $if(closing)$\setkomavar{closing}{$closing$}$endif$
302 $if(firstfoot)$\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.

```
303 $if(addressee)$
304 $else$
305 \KOMAoptions{addrfield=false}
306 $endif$
```

Now the actual content of the letter

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

```
324 ⟨/letter-md⟩
325 ⟨/template⟩
```

7 Documentation preamble `<style>`

```
326 ⟨∗sty⟩
327 ⟨∗style⟩
328 \makeatletter
329 \addtolength\marginparwidth{-40pt}
330 \addtolength\marginparsep{4mm}
331 \addtolength\oddsidemargin{-20pt}
332 \addtolength\evensidemargin{-20pt}
333 \let\PrintDescribeMacro=\@gobble
334 \let\PrintDescribeEnv=\@gobble
335 % \def\Describe@Macro#1{\endgroup
336 %     %\marginnote{\PrintDescribeMacro{#1}}%
337 %     \SpecialUsageIndex{#1}\@esphack\ignorespaces%
338 %     }
339 %\def\Describe@Env#1{\endgroup
```

```
340 %       %\marginnote{\PrintDescribeEnv{#1}}%
341 %       \SpecialEnvIndex{#1}\@esphack\ignorespaces%
342 %       }
343 \makeatother
344 \AtBeginDocument{\normalmarginpar}
345 \setlength\MacrocodeTopsep{.5\baselineskip}
346 \setlength\MacroIndent{6mm}
347
348
349 \RequirePackage{luatexbase}
350 \RequirePackage[ngerman,english]{babel}
351 \RequirePackage{calc}
352
353 \RequirePackage[
354   paper       = a4paper,  %  - use A4 paper size
355   foot        = 2cm,
356   inner       = 3cm,  %  - total body: left margin (odd pages)
357   top         = 3cm,  %  - total body: top margin
358   outer       = 3cm,  %  - total body: right margin (odd pages)
359   bottom      = 3cm,  %  - total body: bottom margin
360   marginparwidth = 2cm,  %  - width for side note
361   marginparsep  = .5cm,  %  - space between notes and body text (content)
362 %   showframe,
363 ]{geometry}
364
365 \newlength\fullwidth
366 \setlength\fullwidth{\textwidth+\marginparwidth+\marginparsep}
367
368 \KOMAoptions{
369 numbers     = noenddot,
370 }
371 \AtBeginDocument{
372   \KOMAoptions{
373 % headwidth  = {\fullwidth},
374 % footwidth  = {\fullwidth},
375 footheight = 20pt,
376 headheight = 29pt,
377 captions   = tableheading,
378 }}
379
380
381
382 \title{\huberlintitle}
383 %\subtitle{\huberlinsubtitle}
384 \author{\huberlinauthor}
385 \date{\Version}
386
```

```
387
388 %---- Required Packages
389 \RequirePackage{ifluatex,luatex85}
390 \ifx\directlua\relax
391   \let\directlua\UnDeFiNeD
392 \fi
393 \ifluatex
394 \else
395 \GenericError{hu-berlin}%
396 {Please use 'LuaLaTeX' as Compiler.^^J I abort here.}
397 \fi
```

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

```
398 \RequirePackage{fontspec}

399 \RequirePackage[mono=false]{libertine}
400 \RequirePackage{amssymb}
401
402 \defaultfontfeatures{%
403   Ligatures = TeX
404 }
```

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

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

And we declare also the other fonts, too.

```
408 \setmonofont[%
409   Scale=1
410 ]{TeX Gyre Cursor}
411 \setsansfont[%
412   ,LetterSpace = .8
413 ]{TeX Gyre Adventor-Regular}
414 \linespread{1.05}
415
416
417
418 \RequirePackage{marginnote}
419 \renewcommand*{\marginfont}{%
420   \rule{0pt}{0.7\baselineskip}%
421   \footnotesize%
422   \color{hu-berlin-brown}}
423
424 \RequirePackage[
425   german = guillemets,
426   style  = german,
```

---

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

```
427 ]{csquotes}
428
429 \RequirePackage{enumitem}
430 \setlist{
431   nosep,
432   % itemindent=1em,
433   % labelindent=0.5\parindent,
434   leftmargin=*}
435 \newlist{tabitemize}{itemize}{2}% neue Listenumgebung
436 \setlist[tabitemize]{%
437   nosep,
438   leftmargin=*
439 }
440 \setlist[tabitemize,1]{label=\labelitemi}
441 \setlist[tabitemize,2]{label=\labelitemii}
442
443
444 \clubpenalty=10000  % prevent single lines at the beginning of a paragraph
445 \widowpenalty=10000  % prevent single lines at the end of a paragraph (Hure
446 \displaywidowpenalty=10000    %
447
448 \RequirePackage{pdfpages}
449 \RequirePackage{biblatex}
450 \addbibresource{\jobname-bibliography.bib}
451 \addbibresource{\jobname-ctan.bib}
452 \RequirePackage{ccicons} %creative commons
453 \RequirePackage{xparse}
454 \RequirePackage{ragged2e}
455 \RequirePackage{microtype}
456 \RequirePackage{xspace}
457 \RequirePackage{graphicx}
458 \graphicspath{{img/}}

459 \RequirePackage{etoolbox}
460 %https://tex.stackexchange.com/a/235881/98739
461 \AfterEndPreamble{%
462   \maketitle
463   \renewcommand\MacroFont{\ttfamily}
464   \renewcommand\AltMacroFont{\ttfamily\linespread{.8}}% slanted verbatim
465 }
466
467 % https://tex.stackexchange.com/a/401466/98739
468 \makeatletter
469 \renewcommand*{\maketitle}{%
470   % taken and shortened from /usr/share/texmf/tex/latex/koma-script/scrartcl
471   \begin{titlepage}
472   \newgeometry{left=3cm,right=3cm,top=1.5cm,bottom=2cm}
```

```
473   \global\@topnum=\z@
474   \setparsizes{\z@}{\z@}{\z@\@plus 1fil}\par@updaterelative
475   \null
476    {\large\@author\hfill \href{mailto:lukas@texografie.de}{lukas@texografie.de}
477   \vskip 10em%
478 {\begin{center}\color{hu-berlin-blue}
479 {\fontsize{50}{55}\selectfont\huberlinshort{} \par\vskip .5em%
480 \Large\sffamily\@title}\par
481 \vskip .5em
482 \end{center}}%
483 {\ifx\@subtitle\@empty\else\usekomafont{subtitle}\@subtitle\par\fi}%
484 \null\vskip 5em%
485 \blockcquote[195]{Hoare1973}{Documentation must be regarded as an integral p
486  A good programming language will encourage and assist the programmer to wri
487  self-documenting code,
488  and even perhaps to develop
489  and display a pleasant style
490  of writing.}
491 \null\vfill
492 {\usekomafont{subtitle}{\@date \hfill
493 \includegraphics[width=4cm]{img/texografie-logo.pdf}\\}}%
494   \par
495  \vskip 0em
496   \restoregeometry
497   \end{titlepage}
498 }%
499 \makeatother
500
501 \RequirePackage{xcolor}
502 \definecolor{hu-berlin-blue}{RGB}{0,65,137} % HEX 004189
503 \definecolor{hu-berlin-green}{RGB}{150,190,20} % HEX 93C11A % Topoi
504 \definecolor{hu-berlin-grey}{RGB}{169,169,169}
505 \definecolor{hu-berlin-brown}{RGB}{82,79,60}
506 \definecolor{hu-berlin-red}{RGB}{180,0,0}
507
508
509 \RequirePackage{dirtree}
510 \renewcommand*\DTstylecomment{%
511   \color{hu-berlin-grey}%
512   \footnotesize%
513   \sffamily}
514 \renewcommand*\DTstyle{%
515   \ttfamily%
516   \small%
517   }
518
519 \RequirePackage[
```

```
520   markcase    = noupper,
521   footsepline = .5pt,
522   % headsepline = .5pt,
523   autooneside = false,% use left and right marks with a onesided document
524   automark,% set \leftmark and \rightmark automatically by *\section and \su
525   draft  = false,
526   ]{scrlayer-scrpage}
527
528 \pagestyle{scrheadings}
529 \clearscrheadfoot
530 \rofoot*{\thepage}
531 \lofoot*{\textcolor{hu-berlin-blue}{\huberlintitle}\ \vrule\ \textcolor{hu-
   berlin-brown}{\huberlinsubtitle}}
532 \rohead*{hu-berlin-bundle}
533 \lohead*{Version: \Version}

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

```
565    {\normalparindent}%<paragraph indent in the footnote text>
566    {\makebox[\normalparindent][r]%
567    {\thefootnotemark\hspace*{3pt}}}}%<definition of mark>
568 \newlength{\normalparindent}
569 \AtBeginDocument{\setlength{\normalparindent}{\parindent}}
570 \setfootnoterule{0pt}% Kein Fußnotenstrich
571 %\setfootnoterule[<height>]{<length>}
572
```

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

```
573 \renewcommand\sectionlinesformat[4]{%
574    \makebox[0pt][r]{#3}#4%
575 }
576 \RequirePackage{url}
577 %   \urlstyle{same}
578
579 \setkomafont{title}{\sffamily\color{hu-berlin-blue}\flushleft\bfseries}
580 \setkomafont{disposition}{\color{hu-berlin-brown}\sffamily\bfseries\large}
581 \setkomafont{section}{\usekomafont{disposition}}
582 \setkomafont{subsection}{\usekomafont{disposition}}
583 \setkomafont{subsubsection}{\usekomafont{disposition}}
584 % \setkomafont{paragraph}{\bfseries}
585 % \setkomafont{subsubsection}{\sffamilybold}
586 \setkomafont{subtitle}{\large\color{hu-berlin-brown}\sffamily\flushleft}
587 \setkomafont{pageheadfoot}{\footnotesize\sffamily\color{hu-berlin-
   grey}}
588 \setkomafont{descriptionlabel}{\bfseries}
589 \setkomafont{footnotelabel}{\bfseries}
590 \addtokomafont{titlehead}{\flushright}
591 % \setkomafont{headsepline}{\color{hu-berlin-blue}}
592 %\setkomafont{marginnote}{\MakeUppercase\color{hu-berlin-brown}}
593 \addtokomafont{caption}{\scriptsize}
594 \setkomafont{captionlabel}{\bfseries\sffamily}
595 \setkomafont{subject}{\bfseries\sffamily}
596 \setcapindent{0pt}
597
598 \raggedbottom
599
600 \RequirePackage{listings}
601 \PassOptionsToPackage{final}{listings}
602 \RequirePackage[%
603    skins
604    ,listings
605    ,breakable
606    ,xparse
607    ,documentation
608 ]{tcolorbox}
```

```
609 \lstMakeShortInline[language=TeX,basicstyle=\ttfamily]|
```

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

```
610 \RequirePackage{hyperxmp}
611 \RequirePackage{hyperref}
612 \hypersetup{% setup the hyperref-package options
613   unicode    = true,
614   pdfauthor       = {hu-berlin}, %   - author (PDF meta)
615   pdfauthortitle     = {},
616   pdfcopyright   = {Copyright (c) \the\year . All rights reserved.},
617   pdfhighlight   = /N,
618   pdfdisplaydoctitle = true,
619   pdflang      = {},%de en
620   pdfcaptionwriter   = {Lukas C. Bossert},
621   pdfkeywords    = {hu-berlin},
622   pdfencoding    = auto,
623   pdfproducer    = {hu-berlin with LuaLaTeX},
624   bookmarksnumbered  = true,
625   bookmarksopenlevel = 2,
626   bookmarksopen  = true,
627   bookmarksdepth = 3,
628   colorlinks     = true,    %Colours links instead of ugly boxes
629   urlcolor       = hu-berlin-blue,    %Colour for external hyperlinks
630   linkcolor      = black,   %Colour of internal links
631   citecolor      = black,   %Colour of citations
632   linktoc        = page,
633   pdfborder      = {0 0 0},
634   breaklinks     = true,  %allow line break inside links
635   final
636 }
637 \RequirePackage{bookmark}
638
639 \RequirePackage[
640   sort,
641   nameinlink,
642   compress,
643   ngerman,english
644 ]{cleveref}
645
646
647 %---- newcommands
648 \newcommand{\TeXografie}{Lukas C. Bossert
649   (www.texografie.de)}
650 \newcommand\huberlin{\huberlintitle\xspace}
651
652
```

```
653 \newcommand\huberlinFolder{%
654   \begingroup%
655   \normalfont%
656   \color{hu-berlin-blue}%
657   % \faFolderOpen% taken from fontawesome
658   \hspace{.3em}%
659   \endgroup}
660
661
662
663 \RedeclareSectionCommands[
664   tocraggedpagenumber,
665   toclinefill=\tocpageseparator,
666   tocindent=0em,
667   tocnumwidth=4em,
668   tocpagenumberbox=\tocpagenumberbox% <- added
669 %   tocpagenumberformat=\textsf,
670 ]{chapter,section,subsection,subsubsection,paragraph}
671
672 \newcommand\tocgobble[1]{}% <- added
673 \newcommand\tocpageseparator{\footnotesize\,\mbox{---}\,}
674 \newcommand\tocpagenumberbox[1]{\mbox{#1}}% <- added
675 \KOMAoptions{toc=indentunnumbered}
676
677 \RedeclareSectionCommand[
678 %   tocbeforeskip=1.25em plus 1pt
679     ,tocentryformat=\large\scshape%
680     ,tocindent=0em
681     ,tocnumwidth=4em
682     ,tocpagenumberbox=\tocgobble% <- added
683 ]{part}
684 %\addtokomafont{partentry}{\scshape\sffamily\bfseries}
685
686 \RedeclareSectionCommand[%
687 %     ,beforeskip=1.15em plus 1pt%
688 ,tocentryformat=\textbf%
689   %   ,toclinefill={\TOCLineLeaderFill}%\TOCLineLeaderFill[\textbf{.}]
690 ]{chapter}
691
692
693
694
695 \newtcolorbox{example}[1][]{
696   breakable,
697   top=5pt,
698   bottom=5pt,
699   colback=hu-berlin-blue!10,
```

```
700    colframe=hu-berlin-blue,
701    left=5pt,
702    right=5pt,
703     sharp corners,
704    boxrule=0pt,
705    bottomrule=2pt,
706    toprule=2pt,
707     enhanced jigsaw,
708    lefttitle=0pt,
709     coltitle=white,
710     fonttitle=\bfseries,
711     fontupper=\small,%\ttfamily,
712    % colbacktitle=hu-berlin-blue!20
713    #1,
714 }
715
716 % Replace the squat-u symbol for spaces
717 % https://tex.stackexchange.com/a/488123/98739
718 \makeatletter
719 \def\lst@visiblespace{\lst@ttfamily{\char32}$\textcolor{hu-berlin-
    grey}{\cdot}$}
720 \makeatother
721
722
723 \lstset{%
724   basicstyle = \linespread{0.7}\ttfamily
725  ,breaklines = true
726  ,breakatwhitespace
727  ,alsoletter=\\\{\}\*\[\]\-
728  ,showstringspaces=true
729  }
730
731 \lstdefinestyle{hu-berlinlistingstyledef}{%
732   tabsize       = 4,
733   breaklines    = true,
734   breakatwhitespace = true,
735   postbreak=\mbox{$\hookrightarrow$},
736   %keepspaces    = true,
737   escapeinside = {(*@}{@*)},
738   moredelim     = {[is][\ttfamily\bfseries\color{hu-berlin-blue}]{|}{|}},
739   moredelim     = {[is][\ttfamily\bfseries\color{hu-berlin-blue}]{|1}{1|}},
740   moredelim     = {[is][\ttfamily\bfseries\color{hu-berlin-red}]{|2}{2|}},
741   aboveskip=0pt,
742   belowskip=0pt,
743   captionpos=b,
744   resetmargins=true,
745   sensitive=true,
```

```
746   upquote=true,
747   showspaces=true,
748   showtabs=true,
749   tab=\textcolor{hu-berlin-grey}{\rightarrowfill},
750   %numbers=left,
751   %numberstyle=\footnotesize\ttfamily\color{hu-berlin-grey},
752   comment      = [l]{\%},
753   commentstyle = \footnotesize\color{hu-berlin-grey}\addfontfeature{LetterSp
754   % deletecomment = [l]{\%<}
755   % morecomment  = [l][\nullfont]{\%<},
756   % deletecomment  = [is]{\%<}{>},
757 }
758
759 \lstdefinestyle{hu-berlinlistingstyle}{%
760   language  = {TeX},
761   style     = {hu-berlinlistingstyledef},
762 }
763
764
765
766
767
768
769 \tcbset{%
770 hu-berlinstyle/.style={%
771   enhanced,
772   before skip=2mm,
773   after skip=3mm,
774   boxrule=0.7pt,
775   left=2mm,
776   right=2mm,
777   top=2mm,
778   bottom=2mm,
779   sharp corners,
780   colback=white,
781   colbacklower=white,
782   % fonttitle=\sffamily\bfseries,
783   breakable,
784   %before skip=\baselineskip,
785   coltitle=white,
786   colbacktitle=hu-berlin-blue!50!black,
787   fonttitle=\bfseries\sffamily\footnotesize,
788   % before upper={\mynote{\thetcbcounter}},
789   title={\hfill{Example \thetcbcounter}},
790   },
791 codecomment/.style={%
792   listing outside comment,%
```

```
793   boxrule=0pt,
794   colback=white,
795   }
796 }
797
798 \newtcolorbox{warning}[1][]{
799   enhanced,
800   before skip=2mm,
801   after skip=3mm,
802   boxrule=0.7pt,
803   left=5mm,
804   right=2mm,
805   top=2mm,
806   bottom=2mm,
807   colback=white,
808   colframe=yellow!20!black,
809   sharp corners,
810   rounded corners=southeast,
811   arc is angular,
812   arc=3mm,
813   underlay={%
814 \path[fill=hu-berlin-grey!80!black] ([yshift=3mm]interior.south east)--
    ++(-0.4,-0.1)--++(0.1,-0.2);
815 \path[draw=hu-berlin-grey,shorten <=-0.05mm,shorten >=-0.05mm] ([yshift=3mm]
    ++(-0.4,-0.1)--++(0.1,-0.2);
816 \path[fill=red!50!black,draw=none] (interior.south west) rectangle node[white
817 },
818   drop fuzzy shadow,
819   #1
820   }
821
822 \newtcblisting[%
823   auto counter,
824   crefname   = {example}{examples},
825   Crefname   = {Example}{Examples},
826 ]{codetext}[2][]{%
827   hu-berlinstyle,
828 %   side text,
829   rounded corners=northeast,
830   arc=6mm,
831   listing style=hu-berlinlistingstyle,
832   label = #2,
833   #1,
834   }
835
836 \newtcblisting[%
837   use counter from=codetext,
```

```
838    crefname={code example}{code examples},
839    Crefname={Code example}{Code examples}%
840 ]{code}[2][]{%
841    hu-berlinstyle,
842    rounded corners=southeast,
843    arc=6mm,
844    listing only,
845    listing style=hu-berlinlistingstyle,
846    label = #2,
847    #1,
848 }
849
850
851 \DeclareTCBInputListing[%
852    use counter from=codetext,
853    crefname={code example}{code examples},
854    Crefname={Code example}{Code examples}%
855 ]{\huberlinlisting}{ O{} m }{%
856    hu-berlinstyle,
857    listing file={#2},
858    listing only,
859      listing style=hu-berlinlistingstyle,
860    #1,
861 }
862
863 \makeatletter
864 \newrobustcmd*{\fnurl}[1][]{\hyper@normalise\ltd@fnurl{#1}}
865 \def\ltd@fnurl#1#2{\footnote{#1\hyper@linkurl{\Hurl{#2}}{#2}}}
866 \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.

```
867 \RequirePackage{newfile}
868 \newoutputstream{pkglist}

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

875 \newrobustcmd*{\lit}[1]{\textsf{#1}}
876 \newrobustcmd*{\Code}[1]{\texttt{#1}}
877 \newrobustcmd*{\tex}{\TeX}
```

---

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

```
878 \newrobustcmd*{\etex}{\mbox{e-TeX}}
879 \newrobustcmd*{\pdftex}{pdf\-\tex}
880 \newrobustcmd*{\xetex}{Xe\-\tex}
881 \newrobustcmd*{\luatex}{Lua\-\tex}
882 \newrobustcmd*{\latex}{\LaTeX}%{La\kern-0.07em TeX}
883 \newrobustcmd*{\pdflatex}{pdf\-\latex}
884 \newrobustcmd*{\xelatex}{Xe\-\latex}
885 \newrobustcmd*{\lualatex}{Lua\-\latex}
886 \newrobustcmd*{\miktex}{Mik\-\tex}
887 \newrobustcmd*{\texlive}{\tex~live}
888 \newrobustcmd*{\bibtex}{Bib\kern-0.07em TeX}
889 \newrobustcmd*{\lppl}{\latex{} Project Public License}
890 \newrobustcmd*{\pdf}{{PDF}}
891 \newrobustcmd*{\md}{{MarkDown}}
892 \newrobustcmd*{\utf}{\mbox{{UTF}-8}}
893 % no \mbox here, we may have to break things
894 \newrobustcmd*{\bibfield}[1]{\Code{#1}}
895 \newrobustcmd*{\opt}[1]{\Code{#1}}
896 \newrobustcmd*{\bibmacro}[1]{\Code{#1}}
897 \newrobustcmd*{\bibtype}[1]{\Code{@#1}}
898 %\renewrobustcmd*{\cmd}[1]{\Code{\textbackslash #1}}
899 \renewrobustcmd\meta[1]{\normalfont{\textlangle}{\itshape#1\/}{\textrangle}
900
901 % directly taken from ltxdoc.dtx
902 \renewrobustcmd\marg[1]{%
903   {\ttfamily\textcolor{hu-berlin-red}{\{}}%
904     \meta{#1}%
905   {\ttfamily\textcolor{hu-berlin-red}{\}}}%
906   }
907
908 \renewrobustcmd\oarg[1]{%
909   {\ttfamily\textcolor{hu-berlin-green}{[}}%
910     \meta{#1}%
911   {\ttfamily\textcolor{hu-berlin-green}{]}}%
912   }
913
914 % adapted from listings.dtx (lstdoc.sty)
915 \renewrobustcmd\cmd[1]{%
916   \texttt{\color{hu-berlin-blue}\textbackslash\string#1}\xspace%
917   }
918
919 \newrobustcmd\env[2][]{%
920   \texttt{%
921 \color{hu-berlin-blue}%
922 \textbackslash begin\{\string#2\}#1}%
923   \ldots
924   \texttt{%
```

```
925 \color{hu-berlin-blue}%
926 \textbackslash end\{\string#2\}}%
927   \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*⟩}.

```
928 \newcommand\param[1]{%
929   \begingroup%
930   \normalfont%
931   \ttfamily%
932   \bfseries%
933   \textless%
934   #1%
935   \ttfamily%
936   \bfseries%
937   \textgreater%
938   \endgroup}

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

968 ⟨/sty⟩

References

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[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 10/29/2020).

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[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 10/29/2020).

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[8] The LaTeX Team and David Carlisle. *The Graphicx package. Enhanced support for graphics*. Version 1.2b. Sept. 9, 2020. URL: http://www.ctan.org/pkg/graphicx (visited on 10/29/2020).

[9] Martin Vogel, Thomas Henlich, and Mojca Miklavec. *The Marvosym package. Martin Vogel's Symbols (marvosym) font*. Version 2.2a. URL: http://www.marvosym.de (visited on 10/29/2020).

Example files

8 Letter

8.1 From `.tex`

Humboldt-Universität zu Berlin | UdL 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:
29. 10. 2020
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Dr. Max Mustermann
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IBAN DE95 1007 0848 0512 6206 01
BIC DEUTDEDB110

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 | UdL 6 | D-10099 Berlin

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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:
29. 10. 2020
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