

# HUBerlin-bundle

Documents and Documentations for  $\text{\LaTeX}$  at the Humboldt-Universität zu Berlin

»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.« [1, p. 195]

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# 1 Introduction

Following documents or documentclasses are available:

- **letter** (HUBerlin-letter.cls)

## 1.1 Installation of the bundle

HUBerlin 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 HUBerlin-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/HUBerlin-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](https://keepachangelog.com).

# 2 Preamble

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

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

```

HUBerlin-bundle
├── HUBerlin-bundle.dtx..... code and documentation
├── examples ..... folder for exemplary files
│   ├── HUBerlin-letter.tex ..... letter
│   ├── HUBerlin-letter.lco ..... datafile for letter
│   └── HUBerlin-letter.pdf ..... letter
├── img ..... folder for images
│   └── texografie-logo.png..... logo of Lukas C. Bossert (www.TeXografie.de)
├── makefile..... makefile to generate all required files
└── README.md..... README file with information on installation

```

Figure 2.1: Structure of HUBerlin bundle

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

# Guideline for Users

1 `<*example>`

## 3 Letter

We give an example on how to create a letter.

### 3.1 `.lco`-file

```

2 <*lco>

3 \ProvidesFile{HUBerlin-letter.lco}
4
5
6
7 \setkomavar{fromname}{Dr. Heinz Hermann} % Name
8 \setkomavar{fromaddress}{%
9   Humboldt-Universität zu Berlin\\
10   Unter den Linden 6\\
11   10099 Berlin}
12 \setkomavar{fromemail}{Heinz.Hermann@hu-berlin.de} % Email-Adresse
13 \setkomavar{fromphone}{49 [030] 2093-70440} % Telefonnummer
14 \setkomavar{fromurl}{www.antikezentrum.hu-berlin.de} % Website
15
16
17 \setkomavar{backaddress}{HU Berlin\\
18 August-Boeckh-Antikezentrum\\
19 D-10099 Berlin}
20
21 \setkomavar{faculty}{Philosophische Fakultät I}
22 \setkomavar{institute}{}%
23 \setkomavar{institute.head}[Prof. Dr.]{Max Mustermann}%
24 \setkomavar{institute.head.position}{Geschäftsführender Direktor}%
25 \setkomavar{institute.head.mail}{max.mustermann@hu-berlin.de}%
26 \setkomavar{institute.logo}{%
27   \includegraphics[width=\useplength{locwidth}]{ABAZ-logo.png}
28 }%
29 \setkomavar{fromname.position}{Wissenschaftlicher Koordinator}
30 \setkomavar{local}{%
31   %\def\\{\usekomavar{backaddressseparator}\@ogobble}
32   Mohrenstraße 40/41\\
33   Raum 14\\
34   10117 Berlin}
35 \setkomavar{connections}{U2 Haltestelle Hausvogteiplatz}
36
37 % ===== Signatur =====
38 \setkomavar{signature}{%
39   \usekomavar{institute.head}\\

```

```

40 }
41 \renewcommand*{\raggedsignature}{\raggedright}

42 </lco>

```

Example 1

```

1 \ProvidesFile{HUBerlin-letter.lco}
2
3 \setkomavar{fromname}{Dr. Heinz Hermann} % Name
4 \setkomavar{fromaddress}{%
5   Humboldt-Universität zu Berlin\\
6   Unter den Linden 6\\
7   10099 Berlin}
8 \setkomavar{fromemail}{Heinz.Hermann@hu-berlin.de} %
9   Email-Adresse
10 \setkomavar{fromphone}{49 [030] 2093-70440} % Telefonnummer
11 \setkomavar{fromurl}{www.antikezentrum.hu-berlin.de} %
12   Website
13
14 \setkomavar{backaddress}{HU Berlin\\
15   August-Boeckh-Antikezentrum\\
16   D-10099 Berlin}
17
18 \setkomavar{faculty}{Philosophische Fakultät I}
19 \setkomavar{institute}{}%
20 \setkomavar{institute.head}[Prof. Dr.]{Max Mustermann}%
21 \setkomavar{institute.head.position}{Geschäftsführender
22   Direktor}%
23 \setkomavar{institute.head.mail}{max.mustermann@hu-berlin.de}%
24 \setkomavar{institute.logo}{%
25   \includegraphics[width=\useplength{locwidth}]{ABAZ-logo.png}
26   }%
27 \setkomavar{fromname.position}{Wissenschaftlicher
28   Koordinator}
29 \setkomavar{local}{%
30   %\def\\{\usekomavar{backaddressseparator}\@ogobble}
31   Mohrenstraße 40/41\\
32   Raum 14\\
33   10117 Berlin}
34 \setkomavar{connections}{U2 Haltestelle Hausvogteiplatz}
35
36 \setkomavar{signature}{%
37   \usekomavar{institute.head}\\
38   }
39 \renewcommand*{\raggedsignature}{\raggedright}

```

### 3.2 .tex-file

```

43 <*letter>

44 \documentclass{HUBerlin-letter}

```

Now we load the personal data-file which has the ending .lco.

```

45 \LoadLetterOption{HUBerlin-letter}

```

If you have the HU font installed on your computer, you can load it:

```

46 \setmainfont[%
47   BoldFont=ScalaSans-BoldLF,
48   Numbers=OldStyle]{ScalaSans-RegularLF}

49 \setkomavar{myref}{111}           % Geschäftszeichen
50
51 \setkomavar{subject}{Betreff}
52 \usepackage{blindtext}
53 % =====
54 \begin{document}
55
56 \begin{letter}{%
57 % ===== Zielanschrift =====
58   Erika Musterfrau\\
59   Musterweg 43\\
60   56789 Musterhausen%
61 % =====
62 }
63
64
65
66 \opening{Sehr geehrte Frau Musterfrau,}
67 \blindtext
68 \footnote{Test}
69 \clearpage
70 \blindtext
71 \footnote{Test}
72 hier kommt der Text hin.
73
74 \closing{Mit freundlichen Grüßen,}
75
76 % ===== Postskriptum =====
77 \ps PS: \dots
78 % =====
79
80 % ===== Anlage(n) =====
81 % \setkomavar*{enclseparator}{Anlage}
82 \encl{%
83   Anlage 1\\
84   Anlage 2%
85 }
86 % =====
87
88 % ===== Verteiler =====
89 % \setkomavar*{ccseparator}{Kopie an}
90 \cc{%
91   Verteiler 1\\
92   Verteiler 2%
93 }
94 % =====
95
96 \end{letter}

```



```
97 \end{document}
```

And how does a example letter looks like?

Example 2

```

1
2 \documentclass{HUBerlin-letter}
3 \LoadLetterOption{HUBerlin-letter}
4 \setmainfont[%
5   BoldFont=ScalaSans-BoldLF,
6   Numbers=OldStyle]{ScalaSans-RegularLF}
7 \setkomavar{myref}{111} % Geschäftszeichen
8
9 \setkomavar{subject}{Betreff}
10 \usepackage{blindtext}
11 \begin{document}
12
13 \begin{letter}{%
14   Erika Musterfrau\\
15   Musterweg 43\\
16   56789 Musterhausen%
17 }
18
19 \opening{Sehr geehrte Frau Musterfrau,}
20 \blindtext
21 \footnote{Test}
22 \clearpage
23 \blindtext
24 \footnote{Test}
25 hier kommt der Text hin.
26
27 \closing{Mit freundlichen Grüßen,}
28
29 \ps PS: \dots
30
31 \encl{%
32   Anlage 1\\
33   Anlage 2%
34 }
35
36 \cc{%

```

```
98 \end{letter}
```

```
99 \end{example}
```



## Guide for Coders

1  $\langle *cls \rangle$

## 4 Letter

2  $\langle *letter \rangle$

```

3 \RequirePackage{xkeyval}

4 \DeclareOptionX*\OptionNotUsed}
5 \ProcessOptionsX\relax
6 \LoadClass[%
7   fontsize=10pt,
8   version=last,
9   visualize
10 ]{scrllttr2}
11 % \showfields{head, address, location, refline, foot}
12
13 % \LoadLetterOption{DIN}

14 \RequirePackage{ifluatex, luatex85}
15 \ifluatex
16 \else
17 \GenericError{HUBerlin}%
18 {Please use 'LuaLaTeX' as Compiler.^^J I abort here.}
19 \fi

20 \RequirePackage[ngerman]{babel}
21 \RequirePackage{graphicx}
22 \RequirePackage{xcolor}
23 \RequirePackage{fontspec}
24 \RequirePackage{geometry}
25 \geometry{%
26   a4paper
27   , left=25mm
28   % , right=15mm
29   , bottom=16mm
30   , foot=4mm
31   , top=77mm
32   , nohead
33   , textwidth=117mm
34   , marginparsep=0mm
35   , marginparwidth=0mm
36 }

37 % HU DESIGN %
38 \setkomavar{backaddressseparator}{~\textbar~}

```

```

39 \KOMAOptions{%
40 numericaldate=true,
41 refline=nodate,
42 backaddress=plain,
43 parskip=half-
44 }

```

We define new komavars.

```

45 \newkomavar{faculty}%
46 \newkomavar{institute}%
47 \newkomavar{institute.head}%
48 \newkomavar{institute.head.position}%
49 \newkomavar{institute.head.mail}%
50 \newkomavar{institute.logo}%
51 \newkomavar{fromname.position}
52 \newkomavar[\textbf{Sitz:}]{local}
53 \newkomavar[\textbf{Verkehrsverbindungen:}]{connections}

```

Now the location field with additional information

```

54 \setkomavar{location}{%
55   \raggedright
56   \fontsize{8.5}{10}\selectfont%
57   \ifkomavareempty{faculty}
58   {}
59   {{\bfseries%
60     \usekomavar{faculty}}\par}
61   \ifkomavareempty{institute.logo}
62     {\usekomavar{institute}}
63     {\usekomavar{institute.logo}}\par%
64   {\bfseries%
65     \usekomavar*{institute.head}\space\usekomavar{institute.head}}\%
66   \usekomavar{institute.head.position}\%
67   \fontsize{7}{8.5}\selectfont
68   \vspace*{4\baselineskip}
69   \usekomavar*{date}\space\usekomavar{date}\par
70   %
71   %
72   \textbf{\usekomavar{fromname}}\%
73   \usekomavar{fromname.position}\par
74   \ifkomavareempty{myref}
75   {}
76   {{\bfseries%
77     \usekomavar*{myref}:}\%
78     %%
79     %%
80     \usekomavar[\textbf{Postanschrift:}]\%
81     \vspace*{.5\baselineskip}\%
82     \usekomavar*{local}\%
83     \usekomavar{local}\par
84     \usekomavar*{fromphone}\usekomavar{fromphone}
85     \ifkomavareempty{fromfax}{}{\usekomavar*{fromfax}\usekomavar{fromfax}}
86     \vspace*{.5\baselineskip}\%
87   \ifkomavareempty{institute.head.mail}

```

```

88 {}
89 {\usekomavar{institute.head.mail}}
90 \usekomavar{fromemail}
91 \usekomavar{fromurl}\\
92 \vfill
93 \textbf{\usekomavar*{connections}}\\
94 \usekomavar{connections}
95 }
96 % =====
97
98 \setkomavar{firsthead}{%
99 \includegraphics[width=148mm]{HUBerlin-logo.png}%
100 }

```

### Set second page right

```

101 \RequirePackage{scrlayer-scrpage}
102 \DeclareNewLayer[
103   foreground,
104   textarea,
105   voffset=\useplength{firstheadvpos},
106   hoffset=\useplength{firstheadhpos},
107   width=\useplength{firstheadwidth},
108   mode=picture,
109   contents=\putUL{\raisebox{\dimexpr-\height}{\usekomavar{firsthead}}\hfill\thepage}
110 ]{likefirstpage.head}
111 \AddLayersToPageStyle{scrheadings}{likefirstpage.head}
112 \clearpaairofpagestyles

113 \AtBeginDocument{

```

### Getting rid of the reference field

```

114 \removerefferfields

115 \@setplength{refvpos}{113mm}
116 \@setplength{refaftervskip}{opt}
117 \@setplength{toaddrhpos}{25mm}
118 \@setplength{firstheadhpos}{\useplength{toaddrhpos}}
119 \@setplength{lochpos}{15mm}
120 \@setplength{locvpos}{\useplength{toaddrvpos}}
121 \@addtoplength{locvpos}{.75\baselineskip}
122 \@setplength{locwidth}{45mm}
123 \@setplength{locheight}{232mm}
124 }
125 \setkomavar{date}{\today}
126 \setkomavar{place}{Berlin} % Ort
127 \renewcaptionname{ngerman}{\myrefname}{Geschäftszeichen}

128 </letter>

129 </cls>

```

## 5 Documentation preamble **<style>**

```

130 <*sty>
131 <*style>
132 \makeatletter
133 \addtolength\marginparwidth{-40pt}
134 \addtolength\marginparsep{4mm}
135 \addtolength\oddsidemargin{-20pt}
136 \addtolength\evensidemargin{-20pt}
137 \let\PrintDescribeMacro=\@gobble
138 \let\PrintDescribeEnv=\@gobble
139 % \def\Describe@Macro#1{\endgroup
140 %      %\marginnote{\PrintDescribeMacro{#1}}}%
141 %      \SpecialUsageIndex{#1}\@esphack\ignorespaces%
142 %      }
143 %\def\Describe@Env#1{\endgroup
144 %      %\marginnote{\PrintDescribeEnv{#1}}}%
145 %      \SpecialEnvIndex{#1}\@esphack\ignorespaces%
146 %      }
147 \makeatother
148 \AtBeginDocument{\normalmarginpar}
149 \setlength\MacrocodeTopsep{\baselineskip}
150 \setlength\MacroIndent{6mm}
151
152
153 \RequirePackage{luatexbase}
154 \RequirePackage[ngerman,english]{babel}
155 \RequirePackage{calc}
156
157 \RequirePackage[
158   paper          = a4paper,    % - use A4 paper size
159   foot           = 2cm,
160   inner          = 3cm,        % - total body: left margin (odd pages)
161   top            = 3cm,        % - total body: top margin
162   outer          = 3cm,        % - total body: right margin (odd pages)
163   bottom         = 3cm,        % - total body: bottom margin
164   marginparwidth = 2cm,        % - width for side note
165   marginparsep   = .5cm,      % - space between notes and body text (content)
166 %   showframe,
167 ]{geometry}
168
169 \newlength\fullwidth
170 \setlength\fullwidth{\textwidth+\marginparwidth+\marginparsep}
171
172 \KOMAOptions{
173   numbers      = noenddot,
174 }
175 \AtBeginDocument{

```

```

176 \KOMAOptions{
177 % headwidth = {\fullwidth},
178 % footwidth = {\fullwidth},
179 footheight = 20pt,
180 headheight = 29pt,
181 captions = tableheading,
182 }}
183
184
185
186 \title{\HUBerlintitle}
187 %\subtitle{\HUBerlinsubtitle}
188 \author{\HUBerlinauthor}
189 \date{\Version}
190
191
192 %---- Required Packages
193 \RequirePackage{ifluatex, luatex85}
194
195
196 \ifluatex% LuaTeX
197 \else
198 \GenericError{HUBerlin}{Please use 'LuaLaTeX' as Compiler.^^J I abort here.}
199 \fi

```

For fonts we load the package **fontspec** [4] which has almost no limits handling font-stuff.

```

200 \RequirePackage{fontspec}

201 \RequirePackage[mono=false]{libertine}
202 \RequirePackage{amssymb}
203
204 \defaultfontfeatures{%
205   Ligatures = TeX
206   ,Scale = MatchLowercase
207   ,Numbers = OldStyle
208 }

```

For fonts we use the available TeX Gyre Pagella as main font.<sup>1</sup>

```

209 \setmainfont[%
210   Ligatures = TeX
211   ,Numbers = OldStyle]{TeX Gyre Pagella}

```

And we declare also the other fonts, too.

```

212 \setmonofont[Scale=1]{TeX Gyre Cursor}
213 \setsansfont[%
214   ,LetterSpace = .8]{TeX Gyre Adventor-Regular}
215 \linespread{1.05}

216 \newfontfamily\listingsfont[
217   Scale = MatchLowercase,

```

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

```

218 ]{TeX Gyre Cursor}
219 \renewcommand\MacroFont{\listingsfont}
220
221 \RequirePackage{marginnote}
222 \renewcommand*{\marginfont}{%
223   \rule{opt}{0.7\baselineskip}%
224   \footnotesize%
225   \color{HUBerlin-brown}}
226
227 \RequirePackage[
228   german = guillemets,
229   style   = german,
230 ]{csquotes}
231
232 \RequirePackage{enumitem}
233 \setlist{
234   nosep,
235   % itemindent=1em,
236   % labelindent=0.5\parindent,
237   leftmargin=*}
238 \newlist{tabitemize}{itemize}{2}% neue Listenumgebung
239 \setlist{tabitemize}{%
240   nosep,
241   leftmargin=*
242 }
243 \setlist{tabitemize,1}{label=\labelitemi}
244 \setlist{tabitemize,2}{label=\labelitemii}
245
246
247 \clubpenalty=10000 % prevent single lines at the beginning of a paragraph (Schustert)
248 \widowpenalty=10000 % prevent single lines at the end of a paragraph (Hurenkinder)
249 \displaywidowpenalty=10000 %
250
251 \RequirePackage{pdfpages}
252 \RequirePackage{biblatex}
253 \addbibresource{\jobname-bibliography.bib}
254 \addbibresource{\jobname-ctan.bib}
255 \RequirePackage{ccicons} %creative commons
256 \RequirePackage{xparse}
257 \RequirePackage{ragged2e}
258 \RequirePackage{microtype}
259 \RequirePackage{xspace}
260 \RequirePackage{graphicx}
261 \graphicspath{{img/}}

262 \RequirePackage{etoolbox}
263 %https://tex.stackexchange.com/a/235881/98739
264 \AfterEndPreamble{\maketitle}
265
266 % https://tex.stackexchange.com/a/401466/98739
267 \makeatletter
268 \renewcommand*{\maketitle}{%
269   % taken and shortened from /usr/share/texmf/tex/latex/koma-script/scrartcl.cls

```



```

270 \begin{titlepage}
271 \newgeometry{left=3cm, right=3cm, top=1.5cm, bottom=2cm}
272 \global\@topnum=\z@
273 \setparsizes{\z@}{\z@}{\z@\@plus 1fil}\par@updaterelative
274 \null
275 {\large\@author\hfill Guideline and Documentation\par}
276 \vskip 10em%
277 {\begin{center}\color{HUBerlin-blue}
278 {\fontsize{50}{55}\selectfont\HUBerlinshort{} \par\vskip .5em%
279 \Large\sffamily\@title}\par
280 \vskip .5em
281 \end{center}}%
282 {\ifx\@subtitle\@empty\else\usekomafont{subtitle}\@subtitle\par\fi}%
283 \null\vskip 5em%
284 \blockcquote[195]{Hoare1973}{Documentation must be regarded as an integral part of
285 A good programming language will encourage and assist the programmer to write clear
286 self-documenting code,
287 and even perhaps to develop
288 and display a pleasant style
289 of writing.}
290 \null\vfill
291 {\usekomafont{subtitle}{\@date \hfill
292 \includegraphics[width=4cm]{texografie}\}\}%
293 \par
294 \vskip 0em
295 \restoregeometry
296 \end{titlepage}
297 }%
298 \makeatother
299
300 \RequirePackage{xcolor}
301 \definecolor{HUBerlin-blue}{RGB}{0,65,137} % HEX 004189
302 \definecolor{HUBerlin-green}{RGB}{150,190,20} % HEX 93C11A % Topoi
303 \definecolor{HUBerlin-grey}{RGB}{169,169,169}
304 \definecolor{HUBerlin-brown}{RGB}{82,79,60}
305 \definecolor{HUBerlin-red}{RGB}{180,0,0}
306
307
308 \usepackage{dirtree}
309 \renewcommand*{\DTstylecomment}{%
310 \color{HUBerlin-grey}%
311 \footnotesize%
312 \sffamily}
313 \renewcommand*{\DTstyle}{%
314 \ttfamily%
315 \small%
316 }
317
318 \RequirePackage[
319 markcase = noupper,
320 footsepline = .5pt,
321 % headsepline = .5pt,
322 autooneside = false,% use left and right marks with a onesided document

```

```

323 automark,% set \leftmark and \rightmark automatically by *\section and \subsection
324 draft = false,
325 ]{scrlayer-scrpage}
326
327 \pagestyle{scrheadings}
328 \clearscrheadfoot
329 \rofoot*{\thepage}
330 \lofoot*{\textcolor{HUBerlin-blue}{\HUBerlintitle}\ \vrule\ \textcolor{HUBerlin-
    brown}{\HUBerlinsubtitle}}
331 \rohead*{HUBerlin-bundle}
332 \lohead*{Version: \Version}

333 % https://tex.stackexchange.com/a/352925/98739
334 \newcommand*\partnumber{}
335 \DeclareNewLayer[
336   background,
337   textarea,
338   addwidth=\marginparsep+\marginparwidth,
339   mode=picture,
340   contents={%
341     \putC{\makebox[opt][c]{\raisebox{-.5\height}{\scalebox{50}{\textcolor{black!5}{\part
342     }
343   ]\partnumber}
344 \DeclareNewPageStyleByLayers{part}{\partnumber}
345 \renewcommand\partpagestyle{part}
346 \renewcommand*\partformat{\gdef\partnumber{\thepart}}
347
348 % only a dirty workaround for the part title
349 \newcommand*\changedpartwidth[1]{%
350   \makebox[\linewidth][l]{%
351     \parbox{\dimexpr\textwidth+\marginparsep+\marginparwidth\relax}{\raggedpart#1}%
352   }%
353 }
354 % add \changedpartwidth as last command to the settings for font element part
355 \addtokomafont{part}{\Huge\changedpartwidth}
356
357
358
359 %-https://tex.stackexchange.com/a/339516/98739 | https://tex.stackexchange.com/a/9
360 % footnotes in the footer:
361 \deffootnote%
362   %[\normalparindent]%<width of mark>
363   {0.0cm}%<indent of footnote text>
364   {\normalparindent}%<paragraph indent in the footnote text>
365   {\makebox[\normalparindent][r]%
366     {\thefootnotemark\hspace*{3pt}}}%<definition of mark>
367 \newlength{\normalparindent}
368 \AtBeginDocument{\setlength{\normalparindent}{\parindent}}
369 \setfootnoterule{opt}% Kein Fußnotenstrich
370 %\setfootnoterule[<height>]{<length>}
371

```

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

```

372 \renewcommand\sectionlinesformat[4]{%
373   \makebox[opt][r]{#3}#4%
374 }

375 \RequirePackage{url}
376 %   \urlstyle{same}
377
378 \setkomafont{title}{\sffamily\color{HUBerlin-blue}\flushleft\bfseries}
379 \setkomafont{disposition}{\color{HUBerlin-brown}\sffamily\bfseries\large}
380 \setkomafont{section}{\usekomafont{disposition}}
381 \setkomafont{subsection}{\usekomafont{disposition}}
382 \setkomafont{subsubsection}{\usekomafont{disposition}}
383 % \setkomafont{paragraph}{\bfseries}
384 % \setkomafont{subsubsection}{\sffamilybold}
385 \setkomafont{subtitle}{\large\color{HUBerlin-brown}\sffamily\flushleft}
386 \setkomafont{pageheadfoot}{\footnotesize\sffamily\color{HUBerlin-grey}}
387 \setkomafont{descriptionlabel}{\bfseries}
388 \setkomafont{footnotelabel}{\bfseries}
389 \addtokomafont{titlehead}{\flushright}
390 % \setkomafont{headsepline}{\color{HUBerlin-blue}}
391 % \setkomafont{marginnote}{\MakeUppercase\color{HUBerlin-brown}}
392 \addtokomafont{caption}{\scriptsize}
393 \setkomafont{captionlabel}{\bfseries\sffamily}
394 \setkomafont{subject}{\bfseries\sffamily}
395 \setcapindent{opt}
396
397 \raggedbottom
398
399 \usepackage{listings}
400 \PassOptionsToPackage{final}{listings}
401 \usepackage[%
402   skins
403   ,listings
404   ,breakable
405   ,xparse
406   ,documentation
407 ]{tcolorbox}
408 \lstMakeShortInline[language=TeX,basicstyle=\ttfamily]|

```

Following we load **hyperxmp** [3] and **hyperref** [2] for PDF-meta data and interactive linked text.

```

409 \RequirePackage{hyperxmp}
410 \RequirePackage{hyperref}
411 \hypersetup{% setup the hyperref-package options
412   unicode      = true,
413   pdfauthor    = {HUBerlin}, %   - author (PDF meta)
414   pdfauthorortitle = {},
415   pdfcopyright = {Copyright (c) \the\year . All rights reserved.},
416   pdfhighlight = /N,
417   pdfdisplaydoctitle = true,
418   pdfdate      = {\today},
419   pdflang      = {}, %de en
420   pdfcaptionwriter = {Lukas C. Bossert},
421   pdfkeywords   = {HUBerlin},

```

```

422 pdfencoding      = auto,
423 pdfproducer      = {HUBerlin with LuaLaTeX},
424 bookmarksnumbered = true,
425 bookmarksopenlevel = 2,
426 bookmarksopen     = true,
427 bookmarksdepth    = 3,
428 colorlinks        = true,      %Colours links instead of ugly boxes
429 urlcolor          = HUBerlin-blue, %Colour for external hyperlinks
430 linkcolor          = black,     %Colour of internal links
431 citecolor          = black,     %Colour of citations
432 linktoc            = page,
433 pdfborder          = {0 0 0},
434 breaklinks        = true,      %allow line break inside links
435 }
436 \RequirePackage{bookmark}
437
438 \RequirePackage[
439   sort,
440   nameinlink,
441   compress,
442   ngerman,english
443 ]{cleveref}
444
445
446 %---- newcommands
447 \newcommand{\TeXografie}{Lukas C. Bossert
448   (www.TeXografie.de) }
449 \newcommand\HUBerlin{\HUBerlintitle\xspace}
450
451
452 \newcommand\HUBerlinFolder{%
453   \begingroup%
454   \normalfont%
455   \color{HUBerlin-blue}%
456   % \faFolderOpen% taken from fontawesome
457   \hspace{.3em}%
458   \endgroup}
459
460
461
462 \RedeclareSectionCommands[
463   tocraggedpagenumber,
464   toclinefill=\tocpageseparator,
465   tocindent=oem,
466   tocnumwidth=4em,
467   tocpagenumberbox=\tocpagenumberbox% <- added
468 %   tocpagenumberformat=\textsf,
469 ]{chapter, section, subsection, subsubsection, paragraph}
470
471 \newcommand\tocgobble[1]{}% <- added
472 \newcommand\tocpageseparator{\footnotesize\, \mbox{---}\, }
473 \newcommand\tocpagenumberbox[1]{\mbox{\#1}}% <- added
474 \KOMAOptions{toc=indentunnumbered}

```

```

475
476 \RedeclareSectionCommand[
477 %   tocbeforeskip=1.25em plus 1pt
478   ,tocentryformat=\large\scshape%
479   ,tocindent=oem
480   ,tocnumwidth=4em
481   ,tocpagenumberbox=\tocgobble% <- added
482 ]{part}
483 %\addtokomafont{partentry}{\scshape\sffamily\bfseries}
484
485 \RedeclareSectionCommand[%
486 %   ,beforeskip=1.15em plus 1pt%
487 ,tocentryformat=\textbf%
488 %   ,toclinefill={\TOCLineLeaderFill}%\TOCLineLeaderFill[\textbf{.}]
489 ]{chapter}
490
491
492
493
494 \newtcolorbox{example}[1][]{
495   breakable,
496   top=5pt,
497   bottom=5pt,
498   colback=HUBerlin-blue!10,
499   colframe=HUBerlin-blue,
500   left=5pt,
501   right=5pt,
502   sharp corners,
503   boxrule=0pt,
504   bottomrule=2pt,
505   toprule=2pt,
506   enhanced jigsaw,
507   lefttitle=0pt,
508   coltitle=white,
509   fonttitle=\bfseries,
510   fontupper=\small,%\ttfamily,
511   % colbacktitle=HUBerlin-blue!20
512   #1,
513 }
514
515 % Replace the squat-u symbol for spaces
516 % https://tex.stackexchange.com/a/488123/98739
517 \makeatletter
518 \def\lst@visiblespace{\lst@ttfamily{\char32}$\textcolor{HUBerlin-grey}{\cdot}$}
519 \makeatother
520
521
522 \lstset{%
523   basicstyle = \linespread{0.7}\listingsfont
524   ,breaklines = true
525   ,breakatwhitespace
526   ,alsoletter=\\{\}\}\*\[\\]\-
527   ,showstringspaces=true

```

```

528 }
529
530 \lstdefinestyle{HUBerlinlistingstyledef}{%
531   tabsize      = 4,
532   breaklines   = true,
533   breakatwhitespace = true,
534   postbreak=\mbox{$\hookrightarrow$},
535   %keepspaces  = true,
536   escapeinside = {(*@}{@*)},
537   moredelim    = {[is][\ttfamily\bfseries\color{HUBerlin-blue}]{|}{|}},
538   moredelim    = {[is][\ttfamily\bfseries\color{HUBerlin-blue}]{|_1}{_1|}},
539   moredelim    = {[is][\ttfamily\bfseries\color{HUBerlin-red}]{|_2}{_2|}},
540   aboveskip=opt,
541   belowskip=opt,
542   captionpos=b,
543   resetmargins=true,
544   sensitive=true,
545   upquote=true,
546   showspaces=true,
547   showtabs=true,
548   tab=\textcolor{HUBerlin-grey}{\rightarrowfill},
549   %numbers=left,
550   %numberstyle=\footnotesize\ttfamily\color{HUBerlin-grey},
551   comment      = [l]{\%},
552   commentstyle = \footnotesize\color{HUBerlin-grey}\addfontfeature{LetterSpace=.7},
553   % deletacomment = [l]{\%<}
554   % morecomment  = [l][\nullfont]{\%<},
555   % deletacomment = [is]{\%<}{>},
556 }
557
558 \lstdefinestyle{HUBerlinlistingstyle}{%
559   language = {TeX},
560   style    = {HUBerlinlistingstyledef},
561 }
562
563
564
565
566
567
568 \tcbsset{%
569 HUBerlinstyle/.style={%
570   enhanced,
571   before skip=2mm,
572   after skip=3mm,
573   boxrule=0.7pt,
574   left=2mm,
575   right=2mm,
576   top=2mm,
577   bottom=2mm,
578   sharp corners,
579   colback=white,
580   colbacklower=white,

```

```

581 % fonttitle=\sffamily\bfseries,
582 breakable,
583 %before skip=\baselineskip,
584 coltitle=white,
585 colbacktitle=HUBerlin-blue!50!black,
586 fonttitle=\bfseries\sffamily\footnotesize,
587 % before upper={\mynote{\thetcbcounter}},
588 title={\hfill{Example \thetcbcounter}},
589 },
590 codecomment/.style={%
591   listing outside comment,%
592   boxrule=opt,
593   colback=white,
594 }
595 }
596
597 \newtcolorbox{warning}[1][]{
598   enhanced,
599   before skip=2mm,
600   after skip=3mm,
601   boxrule=0.7pt,
602   left=5mm,
603   right=2mm,
604   top=2mm,
605   bottom=2mm,
606   colback=white,
607   colframe=yellow!20!black,
608   sharp corners,
609   rounded corners=southeast,
610   arc is angular,
611   arc=3mm,
612   underlay={%
613 \path[fill=HUBerlin-grey!80!black] ([yshift=3mm]interior.south east)--
        ++(-0.4,-0.1)--++(0.1,-0.2);
614 \path[draw=HUBerlin-grey,shorten <=-0.05mm,shorten >=-0.05mm] ([yshift=3mm]interior
        ++(-0.4,-0.1)--++(0.1,-0.2);
615 \path[fill=red!50!black,draw=none] (interior.south west) rectangle node[white]{\Huge
616 },
617   drop fuzzy shadow,
618   #1
619 }
620
621 \newtcblisting[%
622   auto counter,
623   crefname   = {example}{examples},
624   Crefname   = {Example}{Examples},
625 ]{codetext}[2][]{%
626   HUBerlinstyle,
627 %   side text,
628   rounded corners=northeast,
629   arc=6mm,
630   listing style=HUBerlinlistingstyle,
631   label = #2,

```

```

632 #1,
633 }
634
635 \newtcblisting[%
636   use counter from=codetext,
637   crefname={code example}{code examples},
638   Crefname={Code example}{Code examples}%
639 ]{code}[2][]{%
640   HUBerlinstyle,
641   rounded corners=southeast,
642   arc=6mm,
643   listing only,
644   listing style=HUBerlinlistingstyle,
645   label = #2,
646   #1,
647 }
648
649
650 \DeclareTCBInputListing[%
651   use counter from=codetext,
652   crefname={code example}{code examples},
653   Crefname={Code example}{Code examples}%
654 ]{\HUBerlinlisting}{ O{} m }{%
655   HUBerlinstyle,
656   listing file={#2},
657   listing only,
658   listing style=HUBerlinlistingstyle,
659   #1,
660 }
661
662 \makeatletter
663 \newrobustcmd*{\fnurl}[1][]{\hyper@normalise\ltd@fnurl{#1}}
664 \def\ltd@fnurl#1#2{\footnote{#1\hyper@linkurl{\Hurl{#2}}{#2}}}
665 \makeatother

```

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

```

666 \RequirePackage{newfile}
667 \newoutputstream{pkglist}

668 \NewDocumentCommand{\pkg}{om}{%
669   \IfNoValueTF{#1}
670   {\lowercase{\href{http://www.ctan.org/pkg/#2}}{\textbf{#2}}}
671   {\lowercase{\href{http://www.ctan.org/pkg/#1-#2}}{\textbf{#2}}}%
672   \space\cite{#2}%
673   \addtostream{pkglist}{#2}}

674 \newrobustcmd*{\lit}[1]{\textsf{#1}}
675 \newrobustcmd*{\Code}[1]{\texttt{#1}}

```

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



```

676 \newrobustcmd*{\tex}{\TeX}
677 \newrobustcmd*{\etex}{\mbox{e-TeX}}
678 \newrobustcmd*{\pdftex}{pdf-\tex}
679 \newrobustcmd*{\xetex}{Xe-\tex}
680 \newrobustcmd*{\luatex}{Lua-\tex}
681 \newrobustcmd*{\latex}{\LaTeX}%{La\kern-0.07em TeX}
682 \newrobustcmd*{\pdflatex}{pdf-\latex}
683 \newrobustcmd*{\xelatex}{Xe-\latex}
684 \newrobustcmd*{\lualatex}{Lua-\latex}
685 \newrobustcmd*{\miktex}{Mik-\tex}
686 \newrobustcmd*{\texlive}{\tex~live}
687 \newrobustcmd*{\bibtex}{Bib\kern-0.07em TeX}
688 \newrobustcmd*{\lppl}{\latex{} Project Public License}
689 \newrobustcmd*{\pdf}{{PDF}}
690 \newrobustcmd*{\md}{{Markdown}}
691 \newrobustcmd*{\utf}{\mbox{{UTF}-8}}
692 % no \mbox here, we may have to break things
693 \newrobustcmd*{\bibfield}[1]{\Code{#1}}
694 \newrobustcmd*{\opt}[1]{\Code{#1}}
695 \newrobustcmd*{\bibmacro}[1]{\Code{#1}}
696 \newrobustcmd*{\bibtype}[1]{\Code{@#1}}
697 %\renewrobustcmd*{\cmd}[1]{\Code{\textbackslash #1}}
698 \renewrobustcmd\meta[1]{\normalfont\texttriangle}{\itshape#1/}{\texttriangle}}
699
700 % directly taken from ltxdoc.dtx
701 \renewrobustcmd\marg[1]{%
702   {\ttfamily\textcolor{HUBerlin-red}{\{ \}}}%
703   \meta{#1}%
704   {\ttfamily\textcolor{HUBerlin-red}{\{ \}}}%
705 }
706
707 \renewrobustcmd\oarg[1]{%
708   {\ttfamily\textcolor{HUBerlin-green}{[ ]}}%
709   \meta{#1}%
710   {\ttfamily\textcolor{HUBerlin-green}{[ ]}}%
711 }
712
713 % adapted from listings.dtx (lstdoc.sty)
714 \renewrobustcmd\cmd[1]{%
715   \texttt{\color{HUBerlin-blue}\textbackslash string#1}\xspace%
716 }
717
718 \newrobustcmd\env[2][ ]{%
719   \texttt{%
720     \color{HUBerlin-blue}%
721     \textbackslash begin\{\string#2\}\#1}%
722     \ldots
723     \texttt{%
724       \color{HUBerlin-blue}%
725       \textbackslash end\{\string#2\}}%
726     \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>}`.

```

727 \newcommand\param[1]{%
728   \begingroup%
729   \normalfont%
730   \ttfamily%
731   \bfseries%
732   \textless%
733   #1%
734   \ttfamily%
735   \bfseries%
736   \textgreater%
737   \endgroup}

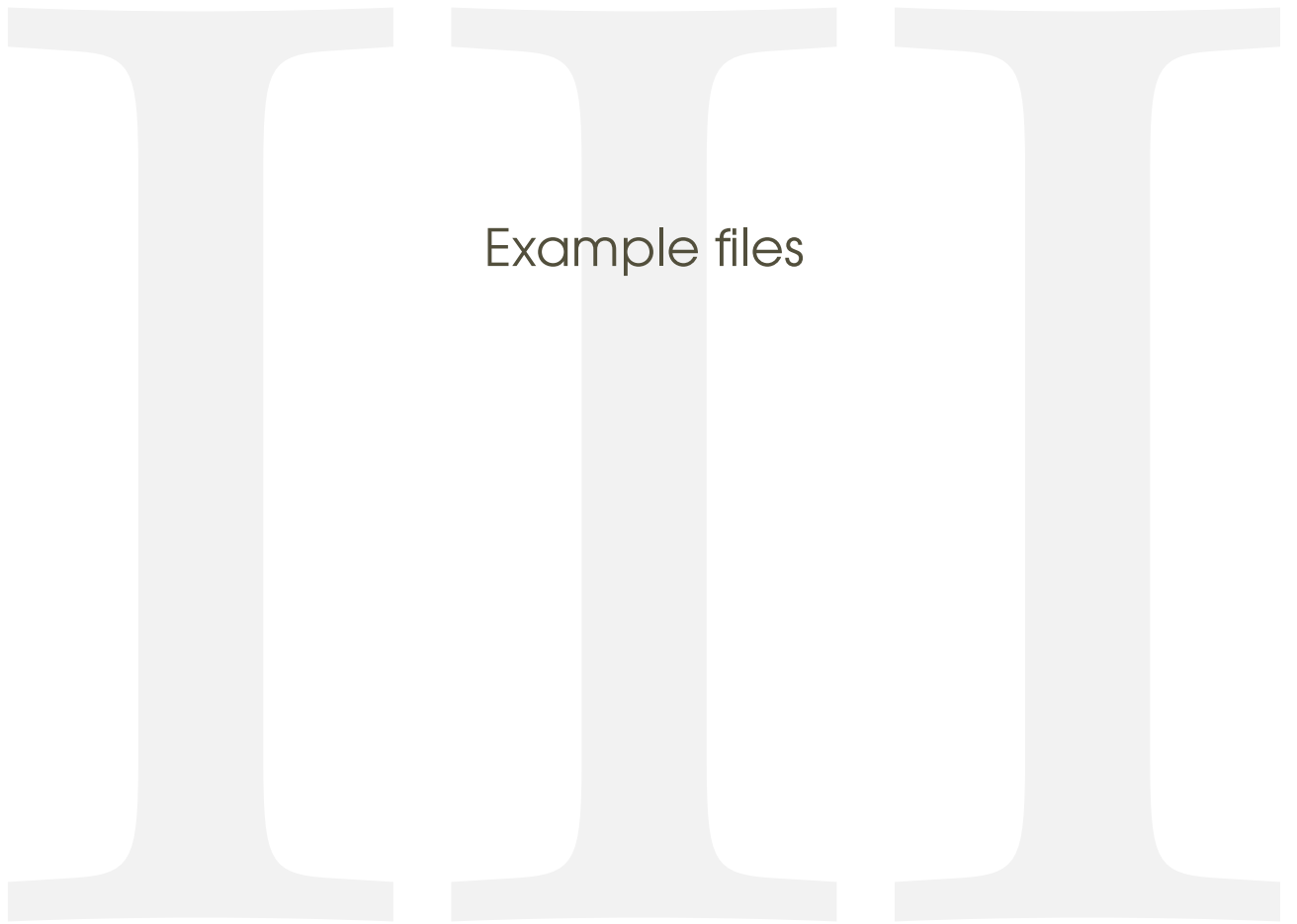
738 \pdfstringdefDisableCommands{%
739   \def\lstinline#1{<#1>}
740   \def\tex{TeX}%
741   \def\etex{e-TeX}%
742   \def\xetex{XeTeX}%
743   \def\latex{LaTeX}%
744   \def\xelatex{XeLaTeX}%
745   \def\bibtex{BibTeX}%
746   \def\lppl{LaTeX Project Public License}%
747   \def\pdf{PDF}%
748   \def\utf{UTF-8}%
749   \def\{\}%
750   \def\texttt#1{<#1>}%
751   \def\marg#1{\{#1\}}%
752   \def\oarg#1{[#1]}%
753   \def\color#1#2{}%
754   \def\env#1{<#1>}
755   \def\cmd#1{#1}
756 }
757 % https://tex.stackexchange.com/a/24067/98739
758 \makeatletter
759 \patchcmd{\scr@startchapter}{\if@openright\cleardoublepage\else\clearpage\fi}{}{}{}
760 \makeatother
761 %
762 \usepackage[tightLists=false]{markdown}
763 \markdownSetup{rendererPrototypes={%
764   link = {\href{#3}{#1}}%
765 }}
766 \</style>

767 \</sty>

```

## Bibliography

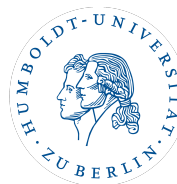
- [1] Charles Antony Richard Hoare. »Hints on programming language design«. In: *Computer Systems Reliability*. Ed. by C. Bunyan. State of the Art Report 20. 1973, pp. 193–216. URL: <http://flint.cs.yale.edu/cs428/doc/HintsPL.pdf> (visited on 09/06/2018).
- [2] Heiko Oberdiek and Sebastian Rahtz. *The Hyperref package. Extensive support for hypertext in LaTeX*. Version 6.88e. Nov. 30, 2018. URL: <https://github.com/ho-tex/hyperref> (visited on 05/14/2019).
- [3] Scott Pakin. *The Hyperxmp package. Embed XMP metadata within a LaTeX document*. Version 4.1. URL: <http://www.ctan.org/pkg/hyperxmp> (visited on 05/14/2019).
- [4] Will Robertson. *The Fontspec package. Advanced font selection in XeLaTeX and LuaLaTeX*. Version 2.7c. URL: <http://www.ctan.org/pkg/fontspec> (visited on 05/14/2019).



Example files

## 6 Letter

## HUMBOLDT-UNIVERSITÄT ZU BERLIN



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Musterweg 43  
56789 Musterhausen

Philosophische Fakultät I

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ANTIKE ZENTRUM**

**Prof. Dr. Max Mustermann**  
Geschäftsführender Direktor

Datum 15. 5. 2019

**Dr. Heinz Hermann**  
Wissenschaftlicher Koordinator

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111

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max.mustermann@hu-berlin.de  
Heinz.Hermann@hu-berlin.de  
www.antikezentrum.hu-berlin.de

**Betreff**

Sehr geehrte Frau Musterfrau,

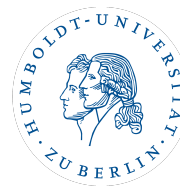
Dies hier ist ein Blindtext zum Testen von Textausgaben. Wer diesen Text liest, ist selbst schuld. Der Text gibt lediglich den Grauwert der Schrift an. Ist das wirklich so? Ist es gleichgültig, ob ich schreibe: „Dies ist ein Blindtext“ oder „Huardest gefburn“? Kjift – mitnichten! Ein Blindtext bietet 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.<sup>1</sup>

---

<sup>1</sup>Test

**Verkehrsverbindungen:**  
U2 Haltestelle Hausvogteiplatz

## HUMBOLDT-UNIVERSITÄT ZU BERLIN



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 gefbunn“? 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. <sup>2</sup> hier kommt der Text hin.

Mit freundlichen Grüßen,

Max Mustermann

PS: ...

Anlage(n): Anlage 1  
Anlage 2

Verteiler: Verteiler 1  
Verteiler 2

---

<sup>2</sup>Test