

HUBerlin-bundle

Documents and Documentations for \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.

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} %
   Email-Adresse
9 \setkomavar{fromphone}{49 [030] 2093-70440} % Telefonnummer
10 \setkomavar{fromurl}{www.antikezentrum.hu-berlin.de} %
   Website
11
12 \setkomavar{backaddress}{HU Berlin\\
13   August-Boeckh-Antikezentrum\\
14   D-10099 Berlin}
15
16 \setkomavar{faculty}{Philosophische Fakultät I}
17 \setkomavar{institute}{}%
18 \setkomavar{institute.head}[Prof. Dr.]{Max Mustermann}%
19 \setkomavar{institute.head.position}{Geschäftsführender
   Direktor}%
20 \setkomavar{institute.head.mail}{max.mustermann@hu-berlin.de}%
21 \setkomavar{institute.logo}{%
22   \includegraphics[width=\useplength{locwidth}]{ABAZ-logo.png}
23 }%
24 \setkomavar{fromname.position}{Wissenschaftlicher
   Koordinator}
25 \setkomavar{local}{%
26   %\def\\{\usekomavar{backaddressseparator}\@ogobble}
27   Mohrenstraße 40/41\\
28   Raum 14\\
29   10117 Berlin}
30 \setkomavar{connections}{U2 Haltestelle Hausvogteiplatz}
31
32 \setkomavar{signature}{%
33   \usekomavar{institute.head}\\
34 }
35 \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, too:

```

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

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

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



Guide for Coders

```
1 < *cls >
```

4 Letter

```
2 < *letter >
```

We first load **xkeyval** [**xkeyval**] for passing additional options from the main file to the documentclass.

```
3 \RequirePackage{xkeyval}

4 \DeclareOptionX*{\OptionNotUsed}
5 \ProcessOptionsX\relax
```

We load **scrllttr2** [**scrllttr2**] which is the documentclass for letters. Furthermore we set up some options.

```
6 \LoadClass[%
7   fontsize=10pt,
8   version=last,
```

If there is anything to debug, you can enable visualize

```
9   visualize

10 ]{scrllttr2}
```

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

```
11 % \showfields{head, address, location, reline, foot}

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

18 \RequirePackage[ngerman]{babel}
19 \RequirePackage{graphicx}
20 \RequirePackage{xcolor}
21 \RequirePackage{fontspec}
22 \setmainfont{Verdana}
23 \RequirePackage{geometry}
24 \geometry{%
25   a4paper
26   , left=25mm
27   , bottom=16mm
28   , foot=4mm
```

```

29 , top=77mm
30 , nohead
31 , textwidth=117mm
32 , marginparsep=0mm
33 , marginparwidth=0mm
34 }

35 % HU DESIGN %
36 \setkomavar{backaddressseparator}{~\textbar~}
37 \KOMAOptions{%
38 numericaldate=true,
39 refline=nodate,
40 backaddress=plain,
41 parskip=half-
42 }

```

We define new komavars.

```

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

```

Now the location field with additional information

```

52 \setkomavar{location}{%
53   \raggedright
54   \fontsize{8.5}{10}\selectfont%
55   \ifkomavareempty{faculty}
56   {}
57   {{\bfseries%
58     \usekomavar{faculty}}\par}
59   \ifkomavareempty{institute.logo}
60     {\usekomavar{institute}}
61     {\usekomavar{institute.logo}}\par%
62   {\bfseries%
63     \usekomavar*{institute.head}\space\usekomavar{institute.head}}\%
64   \usekomavar{institute.head.position}\%
65   \fontsize{7}{8.5}\selectfont
66   \vspace*{4\baselineskip}
67   \usekomavar*{date}\space\usekomavar{date}\par
68 %
69 %
70   \textbf{\usekomavar{fromname}}\%
71   \usekomavar{fromname.position}\par
72   \ifkomavareempty{myref}
73   {}
74   {{\bfseries%
75     \usekomavar*{myref}:}\%

```

```

76  %%
77  %%
78  \usekomavar[\textbf{Postanschrift:}\|\]{fromaddress}
79  \vspace*{.5\baselineskip}\|
80  \usekomavar*{local}\|
81  \usekomavar{local}\par
82  \usekomavar*{fromphone}\usekomavar{fromphone}
83  \ifkomavareempty{fromfax}{}{\usekomavar*{fromfax}\usekomavar{fromfax}}
84  \vspace*{.5\baselineskip}\|
85  \ifkomavareempty{institute.head.mail}
86  {}
87  {\usekomavar{institute.head.mail}}
88  \usekomavar{fromemail}
89  \usekomavar{fromurl}\|
90  \vfill
91  \textbf{\usekomavar*{connections}}\|
92  \usekomavar{connections}
93 }
94 % =====
95
96 \setkomavar{firsthead}{%
97 \includegraphics[width=148mm]{HUBerlin-logo.png}%
98 }

```

Set second page right

```

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

111 \AtBeginDocument{

```

Getting rid of the reference field

```

112 \removerefferfields

113 \@setplength{refvpos}{113mm}
114 \@setplength{refaftervskip}{opt}
115 \@setplength{toaddrhpos}{25mm}
116 \@setplength{firstheadhpos}{\useplength{toaddrhpos}}
117 \@setplength{lochpos}{15mm}
118 \@setplength{locvpos}{\useplength{toaddrvpos}}
119 \@addtoplength{locvpos}{.75\baselineskip}
120 \@setplength{locwidth}{45mm}
121 \@setplength{locheight}{232mm}

```

```

122 }
123 \setkomavar{date}{\today}
124 \setkomavar{place}{Berlin} % Ort
125 \renewcaptionname{ngerman}{\myrefname}{Geschäftszeichen}

126 </letter>

127 </cls>

```

5 Documentation preamble <style>

```

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

```

```

164 % showframe,
165 ]{geometry}
166
167 \newlength\fullwidth
168 \setlength\fullwidth{\textwidth+\marginparwidth+\marginparsep}
169
170 \KOMAOptions{
171 numbers = noenddot,
172 }
173 \AtBeginDocument{
174 \KOMAOptions{
175 % headwidth = {\fullwidth},
176 % footwidth = {\fullwidth},
177 footheight = 20pt,
178 headheight = 29pt,
179 captions = tableheading,
180 }}
181
182
183
184 \title{\HUBerlintitle}
185 %\subtitle{\HUBerlinsubtitle}
186 \author{\HUBerlinauthor}
187 \date{\Version}
188
189
190 %---- Required Packages
191 \RequirePackage{ifluatex, luatex85}
192
193
194 \ifluatex% LuaTeX
195 \else
196 \GenericError{HUBerlin}{Please use 'LuaLaTeX' as Compiler.^^J I abort here.}
197 \fi

```

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

```

198 \RequirePackage{fontspec}

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

```

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

```

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

```

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

And we declare also the other fonts, too.

```

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

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



```

260 \RequirePackage{etoolbox}
261 %https://tex.stackexchange.com/a/235881/98739
262 \AfterEndPreamble{\maketitle}
263
264 % https://tex.stackexchange.com/a/401466/98739
265 \makeatletter
266 \renewcommand*{\maketitle}{%
267   % taken and shortened from /usr/share/texmf/tex/latex/koma-script/scrartcl.cls
268   \begin{titlepage}
269     \newgeometry{left=3cm, right=3cm, top=1.5cm, bottom=2cm}
270     \global\@topnum=\z@
271     \setparsizes{\z@}{\z@}{\z@ \@plus 1fil} \par@updaterelative
272     \null
273     {\large \@author \hfill Guideline and Documentation \par}
274     \vskip 10em%
275     {\begin{center} \color{HUBerlin-blue}
276       {\fontsize{50}{55} \selectfont HUBerlinshort{} \par \vskip .5em%
277       \Large \sffamily \@title} \par
278       \vskip .5em
279       \end{center}}%
280     {\ifx\@subtitle\@empty\else\usekomafont{subtitle}\@subtitle\par\fi}%
281     \null\vskip 5em%
282     \blockquote[195]{Hoare1973}{Documentation must be regarded as an integral part of
283     A good programming language will encourage and assist the programmer to write clear
284     self-documenting code,
285     and even perhaps to develop
286     and display a pleasant style
287     of writing.}
288     \null\vfill
289     {\usekomafont{subtitle}{\@date \hfill
290     \includegraphics[width=4cm]{texografie}\}\}\}%
291     \par
292     \vskip 0em
293     \restoregeometry
294     \end{titlepage}
295 }%
296 \makeatother
297
298 \RequirePackage{xcolor}
299 \definecolor{HUBerlin-blue}{RGB}{0,65,137} % HEX 004189
300 \definecolor{HUBerlin-green}{RGB}{150,190,20} % HEX 93C11A % Topoi
301 \definecolor{HUBerlin-grey}{RGB}{169,169,169}
302 \definecolor{HUBerlin-brown}{RGB}{82,79,60}
303 \definecolor{HUBerlin-red}{RGB}{180,0,0}
304
305
306 \usepackage{dirtree}
307 \renewcommand*{DTstylecomment}{%
308   \color{HUBerlin-grey}%
309   \footnotesize%
310   \sffamily}
311 \renewcommand*{DTstyle}{%
312   \ttfamily%

```

```

313 \small%
314 }
315
316 \RequirePackage[
317   markcase = noupper,
318   footsepline = .5pt,
319   % headsepline = .5pt,
320   autooneside = false,% use left and right marks with a onesided document
321   automark,% set \leftmark and \rightmark automatically by *\section and \subsection
322   draft = false,
323 ]{scrlayer-scrpage}
324
325 \pagestyle{scrheadings}
326 \clearscrheadfoot
327 \rofoot*{\thepage}
328 \lofoot*{\textcolor{HUBerlin-blue}{\HUBerlintitle}\ \vrule\ \textcolor{HUBerlin-
329   brown}{\HUBerlinsubtitle}}
329 \rohead*{HUBerlin-bundle}
330 \lohead*{Version: \Version}

331 % https://tex.stackexchange.com/a/352925/98739
332 \newcommand*\partnumber{}
333 \DeclareNewLayer[
334   background,
335   textarea,
336   addwidth=\marginparsep+\marginparwidth,
337   mode=picture,
338   contents={%
339 \putC{\makebox[opt][c]{\raisebox{-.5\height}{\scalebox{50}{\textcolor{black!5}{\part
340   }
341 ]\partnumber}
342 \DeclareNewPageStyleByLayers{part}{partnumber}
343 \renewcommand\partpagestyle{part}
344 \renewcommand*\partformat{\gdef\partnumber{\thepart}}
345
346 % only a dirty workaround for the part title
347 \newcommand*\changedpartwidth[1]{%
348   \makebox[\linewidth][l]{%
349 \parbox{\dimexpr\textwidth+\marginparsep+\marginparwidth\relax}{\raggedpart#1}%
350   }%
351 }
352 % add \changedpartwidth as last command to the settings for font element part
353 \addtokomafont{part}{\Huge\changedpartwidth}
354
355
356
357 %-https://tex.stackexchange.com/a/339516/98739 | https://tex.stackexchange.com/a/9
358 % footnotes in the footer:
359 \deffootnote%
360   %[\normalparindent]%<width of mark>
361   {0.0cm}%<indent of footnote text>
362   {\normalparindent}%<paragraph indent in the footnote text>
363   {\makebox[\normalparindent][r]}%

```

```

364 {\thefootnotemark\hspace*{3pt}}}%<definition of mark>
365 \newlength{\normalparindent}
366 \AtBeginDocument{\setlength{\normalparindent}{\parindent}}
367 \setfootnoterule{opt}% Kein Fußnotenstrich
368 %\setfootnoterule[<height>]{<length>}
369

```

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

```

370 \renewcommand\sectionlinesformat[4]{%
371   \makebox[opt][r]{#3}#4%
372 }

373 \RequirePackage{url}
374 % \urlstyle{same}
375
376 \setkomafont{title}{\sffamily\color{HUBerlin-blue}\flushleft\bfseries}
377 \setkomafont{disposition}{\color{HUBerlin-brown}\sffamily\bfseries\large}
378 \setkomafont{section}{\usekomafont{disposition}}
379 \setkomafont{subsection}{\usekomafont{disposition}}
380 \setkomafont{subsubsection}{\usekomafont{disposition}}
381 % \setkomafont{paragraph}{\bfseries}
382 % \setkomafont{subsubsection}{\sffamilybold}
383 \setkomafont{subtitle}{\large\color{HUBerlin-brown}\sffamily\flushleft}
384 \setkomafont{pageheadfoot}{\footnotesize\sffamily\color{HUBerlin-grey}}
385 \setkomafont{descriptionlabel}{\bfseries}
386 \setkomafont{footnotelabel}{\bfseries}
387 \addtokomafont{titlehead}{\flushright}
388 % \setkomafont{headsepline}{\color{HUBerlin-blue}}
389 %\setkomafont{marginnote}{\MakeUppercase\color{HUBerlin-brown}}
390 \addtokomafont{caption}{\scriptsize}
391 \setkomafont{captionlabel}{\bfseries\sffamily}
392 \setkomafont{subject}{\bfseries\sffamily}
393 \setcapindent{opt}
394
395 \raggedbottom
396
397 \usepackage{listings}
398 \PassOptionsToPackage{final}{listings}
399 \usepackage[%
400   skins
401   , listings
402   , breakable
403   , xparse
404   , documentation
405 ]{tcolorbox}
406 \lstMakeShortInline[language=TeX,basicstyle=\ttfamily]

```

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

```

407 \RequirePackage{hyperxmp}
408 \RequirePackage{hyperref}
409 \hypersetup{% setup the hyperref-package options
410   unicode      = true,

```

```

411 pdfauthor      = {HUBerlin}, %    - author (PDF meta)
412 pdfauthortitle = {},
413 pdfcopyright   = {Copyright (c) \the\year . All rights reserved.},
414 pdfhighlight   = /N,
415 pdfdisplaydoctitle = true,
416 pdfdate        = {\today},
417 pdflang        = {}, %de en
418 pdfcaptionwriter = {Lukas C. Bossert},
419 pdfkeywords     = {HUBerlin},
420 pdfencoding     = auto,
421 pdfproducer     = {HUBerlin with LuaLaTeX},
422 bookmarksnumbered = true,
423 bookmarksopenlevel = 2,
424 bookmarksopen   = true,
425 bookmarksdepth  = 3,
426 colorlinks      = true, %Colours links instead of ugly boxes
427 urlcolor        = HUBerlin-blue, %Colour for external hyperlinks
428 linkcolor       = black, %Colour of internal links
429 citecolor       = black, %Colour of citations
430 linktoc         = page,
431 pdfborder       = {0 0 0},
432 breaklinks      = true, %allow line break inside links
433 }
434 \RequirePackage{bookmark}
435
436 \RequirePackage[
437   sort,
438   nameinlink,
439   compress,
440   ngerman,english
441 ]{cleveref}
442
443
444 %---- newcommands
445 \newcommand{\TeXografie}{Lukas C. Bossert
446   (www.TeXografie.de) }
447 \newcommand\HUBerlin{\HUBerlintitle\xspace}
448
449
450 \newcommand\HUBerlinFolder{%
451   \begingroup%
452   \normalfont%
453   \color{HUBerlin-blue}%
454   % \faFolderOpen% taken from fontawesome
455   \hspace{.3em}%
456   \endgroup}
457
458
459
460 \RedeclareSectionCommands[
461   tocraggedpagenumber,
462   toclinefill=\tocpageseparator,
463   tocindent=oem,

```

```

464   tocnumwidth=4em,
465   tocpagewidth=\tocpagewidth% <- added
466 %   tocpagewidthformat=\textsf,
467 ]{chapter, section, subsection, subsubsection, paragraph}
468
469 \newcommand\tocgobble[1]{}% <- added
470 \newcommand\tocpageseparator{\footnotesize\, \mbox{---}\, }
471 \newcommand\tocpagewidth[1]{\mbox{#1}}% <- added
472 \KOMAoptions{toc=indentunnumbered}
473
474 \RedeclareSectionCommand[
475 %   tocbeforeskip=1.25em plus 1pt
476   ,tocentryformat=\large\scshape%
477   ,tocindent=oem
478   ,tocnumwidth=4em
479   ,tocpagewidth=\tocgobble% <- added
480 ]{part}
481 %\addtokomafont{partentry}{\scshape\sffamily\bfseries}
482
483 \RedeclareSectionCommand[%
484 %   ,beforeskip=1.15em plus 1pt%
485 ,tocentryformat=\textbf%
486 %   ,toclinefill={\TOCLineLeaderFill}%\TOCLineLeaderFill[\textbf{.}]
487 ]{chapter}
488
489
490
491
492 \newtcolorbox{example}[1][]{
493   breakable,
494   top=5pt,
495   bottom=5pt,
496   colback=HUBerlin-blue!10,
497   colframe=HUBerlin-blue,
498   left=5pt,
499   right=5pt,
500   sharp corners,
501   boxrule=opt,
502   bottomrule=2pt,
503   toprule=2pt,
504   enhanced jigsaw,
505   lefttitle=opt,
506   coltitle=white,
507   fonttitle=\bfseries,
508   fontupper=\small,%\ttfamily,
509   % colbacktitle=HUBerlin-blue!20
510   #1,
511 }
512
513 % Replace the squat-u symbol for spaces
514 % https://tex.stackexchange.com/a/488123/98739
515 \makeatletter
516 \def\lst@visiblespace{\lst@ttfamily{\char32}$\textcolor{HUBerlin-grey}{\cdot}$}

```

```

517 \makeatother
518
519
520 \lstset{%
521   basicstyle = \linespread{0.7}\listingsfont
522   ,breaklines = true
523   ,breakatwhitespace
524   ,alsoletter=\\{\}\*{\}\-
525   ,showstringspaces=true
526 }
527
528 \lstdefinestyle{HUBerlinlistingstyledef}{%
529   tabsize      = 4,
530   breaklines    = true,
531   breakatwhitespace = true,
532   postbreak=\mbox{$\hookrightarrow$},
533   %keepspaces    = true,
534   escapeinside  = {(*@){@*}},
535   moredelim     = {[is][\ttfamily\bfseries\color{HUBerlin-blue}]{|}{|}},
536   moredelim     = {[is][\ttfamily\bfseries\color{HUBerlin-blue}]{|_1}{_1|}},
537   moredelim     = {[is][\ttfamily\bfseries\color{HUBerlin-red}]{|_2}{_2|}},
538   aboveskip=opt,
539   belowskip=opt,
540   captionpos=b,
541   resetmargins=true,
542   sensitive=true,
543   upquote=true,
544   showspaces=true,
545   showtabs=true,
546   tab=\textcolor{HUBerlin-grey}{\rightarrowfill},
547   %numbers=left,
548   %numberstyle=\footnotesize\ttfamily\color{HUBerlin-grey},
549   comment       = [l]{\%},
550   commentstyle  = \footnotesize\color{HUBerlin-grey}\addfontfeature{LetterSpace=.7},
551   % deletecomment = [l]{\%<}
552   % morecomment   = [l][\nullfont]{\%<},
553   % deletecomment = [is]{\%<}{>},
554 }
555
556 \lstdefinestyle{HUBerlinlistingstyle}{%
557   language = {TeX},
558   style     = {HUBerlinlistingstyledef},
559 }
560
561
562
563
564
565
566 \tcbsset{%
567   HUBerlinstyle/.style={%
568     enhanced,
569     before skip=2mm,

```

```

570  after skip=3mm,
571  boxrule=0.7pt,
572  left=2mm,
573  right=2mm,
574  top=2mm,
575  bottom=2mm,
576  sharp corners,
577  colback=white,
578  colbacklower=white,
579  % fonttitle=\sffamily\bfseries,
580  breakable,
581  %before skip=\baselineskip,
582  coltitle=white,
583  colbacktitle=HUBerlin-blue!50!black,
584  fonttitle=\bfseries\sffamily\footnotesize,
585  % before upper={\mynote{\thetcbcounter}},
586  title={\hfill{Example \thetcbcounter}},
587  },
588 codecomment/.style={%
589  listing outside comment,%
590  boxrule=0pt,
591  colback=white,
592  }
593 }
594
595 \newtcolorbox{warning}[1][]{
596  enhanced,
597  before skip=2mm,
598  after skip=3mm,
599  boxrule=0.7pt,
600  left=5mm,
601  right=2mm,
602  top=2mm,
603  bottom=2mm,
604  colback=white,
605  colframe=yellow!20!black,
606  sharp corners,
607  rounded corners=southeast,
608  arc is angular,
609  arc=3mm,
610  underlay={%
611 \path[fill=HUBerlin-grey!80!black] ([yshift=3mm]interior.south east)--
    ++(-0.4,-0.1)--++(0.1,-0.2);
612 \path[draw=HUBerlin-grey,shorten <=-0.05mm,shorten >=-0.05mm] ([yshift=3mm]interior
    ++(-0.4,-0.1)--++(0.1,-0.2);
613 \path[fill=red!50!black,draw=none] (interior.south west) rectangle node[white]{\Huge
614 },
615  drop fuzzy shadow,
616  #1
617  }
618
619 \newtcblisting[%
620  auto counter,

```

```

621 crefname = {example}{examples},
622 Crefname = {Example}{Examples},
623 ]{codetext}[2][]{%
624 HUBerlinstyle,
625 % side text,
626 rounded corners=northeast,
627 arc=6mm,
628 listing style=HUBerlinlistingstyle,
629 label = #2,
630 #1,
631 }
632
633 \newtcblisting[%
634 use counter from=codetext,
635 crefname={code example}{code examples},
636 Crefname={Code example}{Code examples}%
637 ]{code}[2][]{%
638 HUBerlinstyle,
639 rounded corners=southeast,
640 arc=6mm,
641 listing only,
642 listing style=HUBerlinlistingstyle,
643 label = #2,
644 #1,
645 }
646
647
648 \DeclareTCBInputListing[%
649 use counter from=codetext,
650 crefname={code example}{code examples},
651 Crefname={Code example}{Code examples}%
652 ]{\HUBerlinlisting}{ O{ } m }{%
653 HUBerlinstyle,
654 listing file={#2},
655 listing only,
656 listing style=HUBerlinlistingstyle,
657 #1,
658 }
659
660 \makeatletter
661 \newrobustcmd*{\fnurl}[1][]{\hyper@normalise\ltd@fnurl{#1}}
662 \def\ltd@fnurl#1#2{\footnote{#1\hyper@linkurl{\Hurl{#2}}{#2}}}
663 \makeatother

```

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

```

664 \RequirePackage{newfile}
665 \newoutputstream{pkglist}

```

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


```

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

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

```

```

718 \color{HUBerlin-blue}%
719 \textbackslash begin\{\string#2\}\#1}%
720 \ldots
721 \texttt{%
722 \color{HUBerlin-blue}%
723 \textbackslash end\{\string#2\}}%
724 \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>}`.

```

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

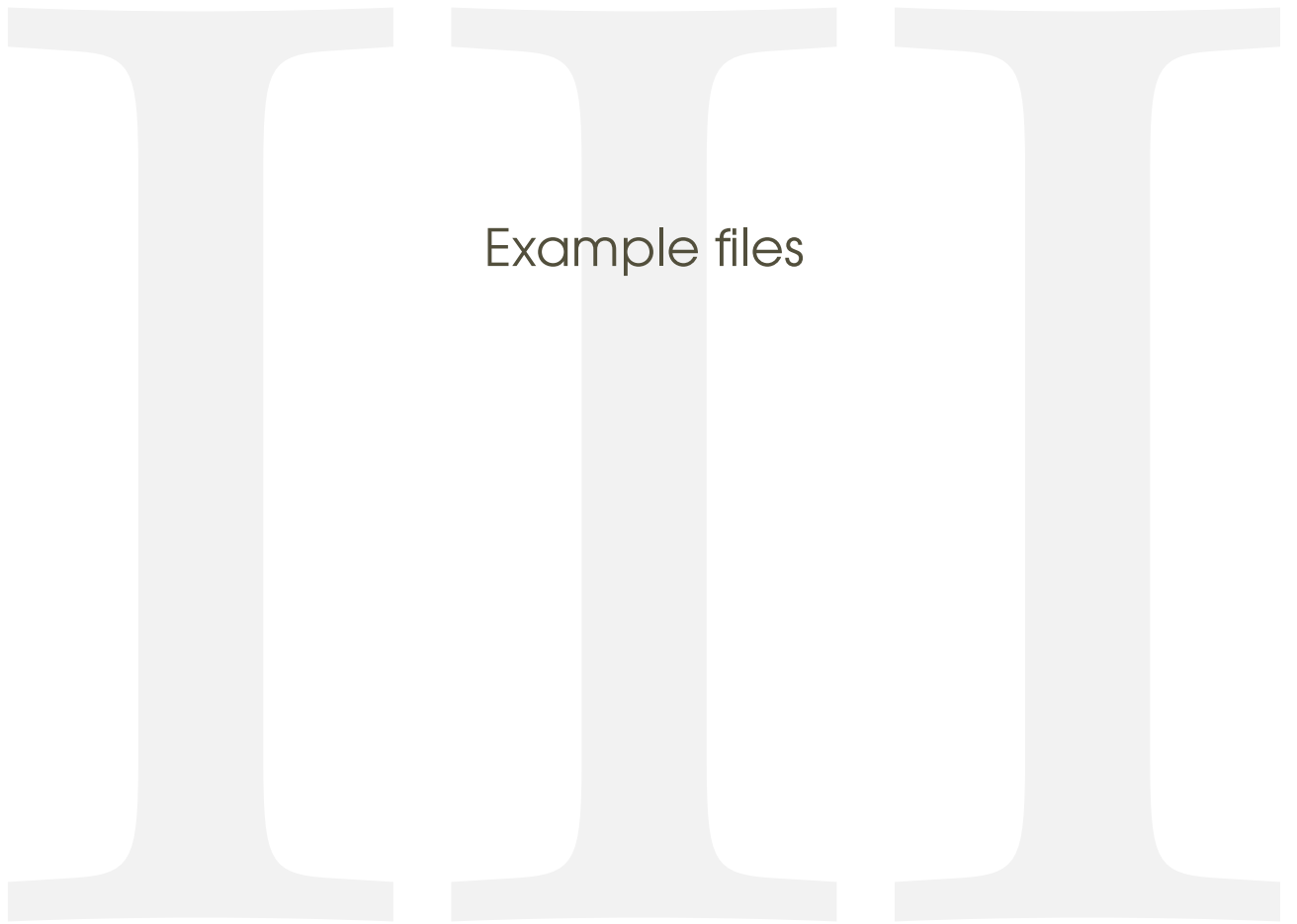
736 \pdfstringdefDisableCommands{%
737 \def\lstinline#1{<#1>}
738 \def\tex{TeX}%
739 \def\etex{e-TeX}%
740 \def\xetex{XeTeX}%
741 \def\latex{LaTeX}%
742 \def\xelatex{XeLaTeX}%
743 \def\bibtex{BibTeX}%
744 \def\lpl{LaTeX Project Public License}%
745 \def\pdf{PDF}%
746 \def\utf{UTF-8}%
747 \def\{\}%
748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

```

765 $\langle /sty \rangle$

Bibliography

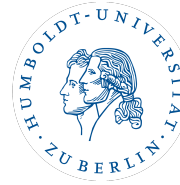
- [1] Charles Antony Richard Hoare. »Hints on programming language design«. In: *Computer Systems Reliability*. Ed. by C. Bunyan. State of the Art Report 20. 1973, pp. 193–216. URL: <http://flint.cs.yale.edu/cs428/doc/HintsPL.pdf> (visited on 09/06/2018).
- [2] Heiko Oberdiek and Sebastian Rahtz. *The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

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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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Betreff

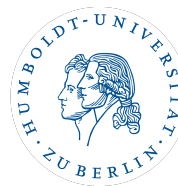
Sehr geehrte Frau Musterfrau,

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. ¹

¹Test

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 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. ² hier kommt der Text hin.

Mit freundlichen Grüßen,

Max Mustermann

PS: ...

Anlage(n): Anlage 1
Anlage 2

Verteiler: Verteiler 1
Verteiler 2

²Test