

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]

Contents

1	Introduction —3
1.1	Installation of the bundle—3
1.2	Changelog—3
2	Preamble —3
I	GUIDELINE FOR USERS
3	Letter —6
3.1	.lco-file—6
3.2	.tex-file—7
II	GUIDE FOR CODERS
4	Letter —11
5	Documentation preamble <code><style></code> —14
III	EXAMPLE FILES
6	Letter —29

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{backaddresseseparator}\@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:

```

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

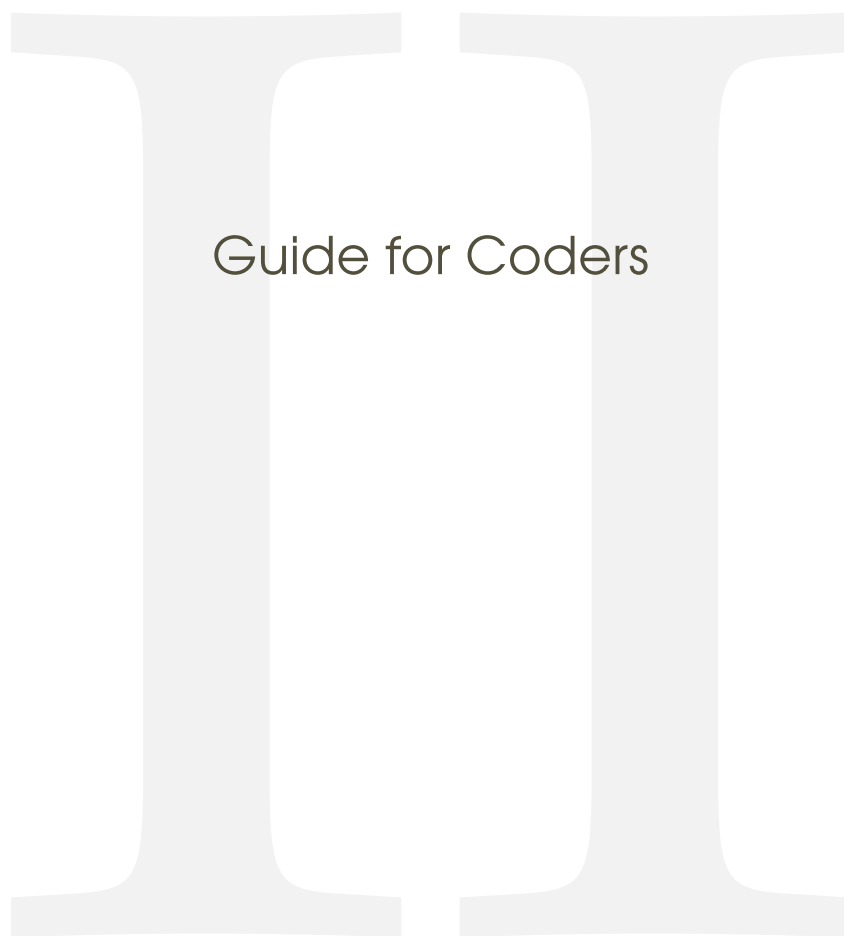
```

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 \@addtoplenght{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.¹

```

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,

```

¹ <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/}}

```

The **luaimageembed** [luaimageembed] is to embed the image based out of code.

```

262 \RequirePackage{luaimageembed}

263 \RequirePackage{etoolbox}
264 %https://tex.stackexchange.com/a/235881/98739
265 \AfterEndPreamble{\maketitle}
266
267 % https://tex.stackexchange.com/a/401466/98739

```



```

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

```

```

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

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

```

372

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

```

373 \renewcommand\sectionlinesformat[4]{%
374   \makebox[opt][r]{#3}#4%
375 }

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

```

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

```

410 \RequirePackage{hyperxmp}
411 \RequirePackage{hyperref}
412 \hypersetup{% setup the hyperref-package options
413   unicode      = true,
414   pdfauthor     = {HUBerlin}, % - author (PDF meta)
415   pdfauthortitle = {},
416   pdfcopyright  = {Copyright (c) \the\year . All rights reserved.},
417   pdfhighlight  = /N,
418   pdfdisplaydoctitle = true,

```

```

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

```

```

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

```

```

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

```

```

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

```

```

629   rounded corners=northeast,
630   arc=6mm,
631   listing style=HUBerlinlistingstyle,
632   label = #2,
633   #1,
634 }
635
636 \newtcblisting[%
637   use counter from=codetext,
638   crefname={code example}{code examples},
639   Crefname={Code example}{Code examples}%
640 ]{code}[2][]{%
641   HUBerlinstyle,
642   rounded corners=southeast,
643   arc=6mm,
644   listing only,
645   listing style=HUBerlinlistingstyle,
646   label = #2,
647   #1,
648 }
649
650
651 \DeclareTCBInputListing[%
652   use counter from=codetext,
653   crefname={code example}{code examples},
654   Crefname={Code example}{Code examples}%
655 ]{\HUBerlinlisting}{O}{m}{%
656   HUBerlinstyle,
657   listing file={#2},
658   listing only,
659   listing style=HUBerlinlistingstyle,
660   #1,
661 }
662
663 \makeatletter
664 \newrobustcmd*{\fnurl}[1][]{\hyper@normalise\ltd@fnurl{#1}}
665 \def\ltd@fnurl#1#2{\footnote{#1\hyper@linkurl{\Hurl{#2}}{#2}}}
666 \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.

```

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

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

```

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


```

674 \addtostream{pkglist}{#2}}

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

```

```

726 \textbackslash end\{\string#2\}}%
727 \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>}`.

```

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

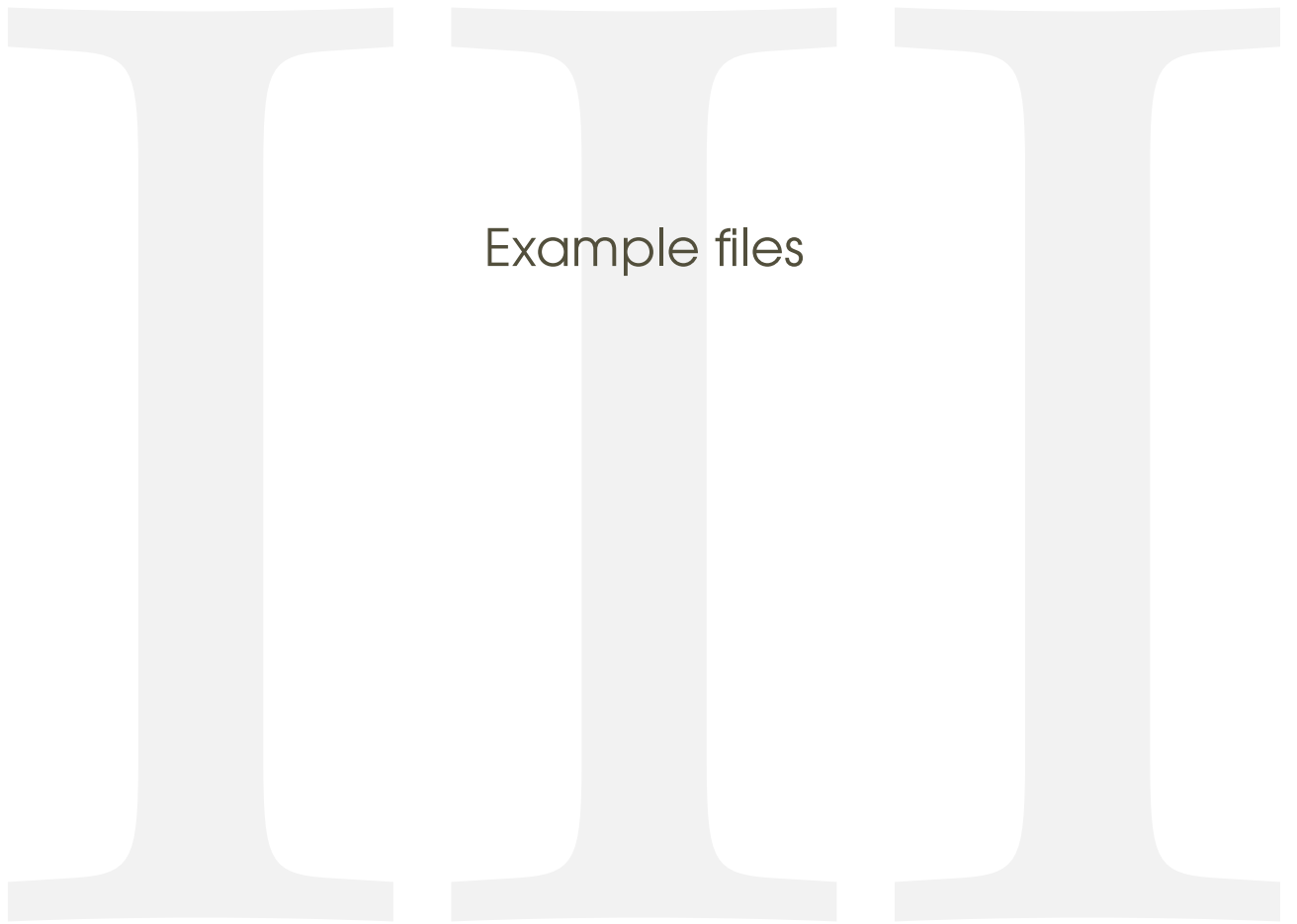
739 \pdfstringdefDisableCommands{%
740   \def\lstinline#1{<#1>}
741   \def\tex{TeX}%
742   \def\etex{e-TeX}%
743   \def\xetex{XeTeX}%
744   \def\latex{LaTeX}%
745   \def\xelatex{XeLaTeX}%
746   \def\bibtex{BibTeX}%
747   \def\lppl{LaTeX Project Public License}%
748   \def\pdf{PDF}%
749   \def\utf{UTF-8}%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

768 \</sty>

```

Bibliography

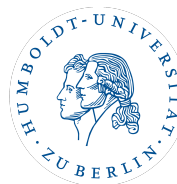
- [1] Charles Antony Richard Hoare. »Hints on programming language design«. In: *Computer Systems Reliability*. Ed. by C. Bunyan. State of the Art Report 20. 1973, pp. 193–216. URL: <http://flint.cs.yale.edu/cs428/doc/HintsPL.pdf> (visited on 09/06/2018).
- [2] Heiko Oberdiek and Sebastian Rahtz. *The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



HU Berlin | August-Boeckh-Antikezentrum | D-10099 Berlin

Erika Musterfrau
Musterweg 43
56789 Musterhausen

Philosophische Fakultät I

**AUGUST BOECKH
ANTIKE ZENTRUM**

Prof. Dr. Max Mustermann
Geschäftsführender Direktor

Datum 15. 5. 2019

Dr. Heinz Hermann
Wissenschaftlicher Koordinator

Geschäftszeichen:
111

Postanschrift:
Humboldt-Universität zu Berlin
Unter den Linden 6
10099 Berlin

Sitz:
Mohrenstraße 40/41
Raum 14
10117 Berlin

Telefon: 49 [030] 2093-70440

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

Betreff

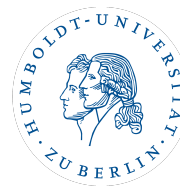
Sehr geehrte Frau Musterfrau,

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.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 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. ² hier kommt der Text hin.

Mit freundlichen Grüßen,

Max Mustermann

PS: ...

Anlage(n): Anlage 1
Anlage 2

Verteiler: Verteiler 1
Verteiler 2

²Test