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

Following documents or documentclasses are available:
- letter (`HUBerlin-letter.cls`)

1.1 Installation of the bundle

`archaeologie` 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 `archaeologie` 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 Preambel

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

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

```
HUBerlin-bundle
  ┏━ HUBerlin-bundle.dtx..................................code and documentation
  ┏━ examples ..........................................folder for examplary 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

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. Lukas C. Bossert} % Name
8  \setkomavar{fromaddress}{%
9    Humboldt-Universität zu Berlin\\
10   Unter den Linden 6\\
11   10099 Berlin}
12 \setkomavar{fromemail}{bosserlu@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\\August-Boeckh-Antikezentrum\\D-10099 Berlin}
18
19 \setkomavar{institute}{}%
20 \setkomavar{institute.head}[Prof. Dr.]{Claudia Tiersch}%
21 \setkomavar{institute.head.position}{Geschäftsführende Direktorin}%
22 \setkomavar{institute.head.mail}{claudia.tiersch@hu-berlin.de}%
23 \setkomavar{institute.logo}{%
24 \includegraphics[width=\useplength{locwidth}]{ABAZ-logo.png}
25 }%
26 \setkomavar{fromname.position}{Wissenschaftlicher Koordinator}
27 \setkomavar{local}{%
28   %\def\\{\usekomavar{backaddressseparator}\@ogobble}
29   Mohrenstraße 40/41\\
30   Raum 14\\
31   10117 Berlin}
32 \setkomavar{connections}{U2 Haltestelle Hausvogteiplatz}
33
34 % ===== Signatur =====
35 \setkomavar{signature}{%
36   \usekomavar{institute.head}\\
37 }
38 \renewcommand*{\raggedsignature}{\raggedright}
```

39 ⟨/lco⟩

3.2 `.tex`-file

40 ⟨*letter⟩

```
41 \documentclass{HUBerlin-letter}
```

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

```
42 \LoadLetterOption{HUBerlin-letter}
```

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

```
43 \setmainfont[%
44   BoldFont=ScalaSans-BoldLF,
45   Numbers=OldStyle]{ScalaSans-RegularLF}
46 \setkomavar{yourref}{}   % Ihr Zeichen
47 \setkomavar{yourmail}{}          % Ihr Schreiben vom
48 \setkomavar{myref}{}             % Unser Zeichen
49 \setkomavar{customer}{}          % Kundennummer
50 \setkomavar{invoice}{}           % Rechnungsnummer
51 \setkomavar{place}{Berlin} % Ort
52
53 \setkomavar{subject}{Betreff}
54 % ====================================
55 \begin{document}
56
57 \begin{letter}{%
58 % ===== Zielanschrift =====
59   Erika Musterfrau\\
60   Musterweg 43\\
61   56789 Musterhausen%
62 % ========================
63 }
64
65
66
67 \opening{Sehr geehrte Frau Musterfrau,}
68
69 hier kommt der Text hin.
70
71 \closing{Mit freundlichen Grüßen,}
72
73 % ===== Postskriptum =====
74 \ps PS: \dots
75 % =======================
76
77 % ===== Anlage(n) =====
78 % \setkomavar*{enclseparator}{Anlage}
79 \encl{%
80   Anlage 1\\
81   Anlage 2%
```

```
82 }
83 % ==================
84
85 % ===== Verteiler =====
86 % \setkomavar*{ccseparator}{Kopie an}
87 \cc{%
88   Verteiler 1\\
89   Verteiler 2%
90 }
91 % ====================
92
93 \end{letter}
94 \end{document}
```

And how does a example letter looks like?

Example 1

```
1  \documentclass{HUBerlin−letter}
2  \LoadLetterOption{HUBerlin−letter}
3  \setmainfont[%
4    BoldFont=ScalaSans−BoldLF,
5    Numbers=OldStyle]{ScalaSans−RegularLF}
6  \setkomavar{yourref}{}  % Ihr Zeichen
7  \setkomavar{yourmail}{}          % Ihr Schreiben vom
8  \setkomavar{myref}{}             % Unser Zeichen
9  \setkomavar{customer}{}          % Kundennummer
10 \setkomavar{invoice}{}           % Rechnungsnummer
11 \setkomavar{place}{Berlin} % Ort
12
13 \setkomavar{subject}{Betreff}
14 \begin{document}
15
16 \begin{letter}{%
17   Erika Musterfrau\\
18   Musterweg 43\\
19   56789 Musterhausen%
20 }
21
22 \opening{Sehr geehrte Frau Musterfrau,}
23
24 hier kommt der Text hin.
25
26 \closing{Mit freundlichen Grüßen,}
27
28 \ps PS: \dots
29
30 \encl{%
31   Anlage 1\\
32   Anlage 2%
33 }
34
35 \cc{%
36   Verteiler 1\\
```

```
95 ⟨/letter⟩
96 ⟨/example⟩
```

II

Guide for Coders

1 ⟨∗cls⟩

4 Letter

2 ⟨∗letter⟩

```
3 \RequirePackage{xkeyval}

4 \DeclareOptionX*{\OptionNotUsed}
5 \ProcessOptionsX\relax
6 \LoadClass[%
7   fontsize=11pt,
8   version=last,
9   DIN,
10 ]{scrlttr2}

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

17 \RequirePackage[ngerman]{babel}
18 \RequirePackage{graphicx}
19 \RequirePackage{xcolor}
20 \RequirePackage{fontspec}

21 % HU DESIGN %
22 \setkomavar{backaddressseparator}{~\textbar~}
23 \KOMAoptions{%
24 locfield=wide,            % Breite Absenderergänzung (location)
25 fromalign=left,           % Ausrichtung des Briefkopfes
26 numericaldate=false,
27 refline=nodate,
28 backaddress=plain,
29 }
30
31
32 \setkomavar{location}{%
33   \raggedright
34   \footnotesize{%
35   \begingroup
36   \color{black!50}
37    \ifkomavarempty{institute.logo}
38     {\usekomavar{institute}}}
```

```
39      {\usekomavar{institute.logo}}\\%
40    \usekomavar{institute.head.position}\\%
41    \usekomavar*{institute.head}\space\usekomavar{institute.head}\\%
42    \endgroup
43    \vspace*{.5cm}
44    {\bfseries%
45    \usekomavar{fromname.position}\\
46    \usekomavar{fromname}}\\
47    \vspace*{.5\baselineskip}
48    \usekomavar{fromaddress}
49    \vspace*{.5\baselineskip}\\
50    \usekomavar*{local}\space\usekomavar{local}\\
51    \usekomavar*{fromphone}\usekomavar{fromphone}
52    \ifkomavarempty{fromfax}{}{\usekomavar*{fromfax}\usekomavar{fromfax}}
53    \vspace*{.5\baselineskip}\\
54    \ifkomavarempty{institute.head.mail}{}{\usekomavar{institute.head.mail}}
55    \usekomavar{fromemail}
56    \usekomavar{fromurl}\\
57    \vspace*{.5\baselineskip}
58    \usekomavar{date}}%
59  }
60  % ==========================
61  \setkomavar{firsthead}{%
62    \parbox{\linewidth}{%
63  \includegraphics[width=.8\linewidth]{HUBerlin-logo.png}
64    }%
65  }
66
67  \@setplength{locheight}{length }
68  \@setplength{lochpos}{length }
69  \@setplength{locvpos}{length }
70  \@setplength{locwidth}{length }
71
72  \setkomavar{title}{}
73  \setkomavar{date}{\today}
```

We define new `komavars`.

```
74  \newkomavar{institute}%
75  \newkomavar{institute.head}%
76  \newkomavar{institute.head.position}%
77  \newkomavar{institute.head.mail}%
78  \newkomavar{institute.logo}%
79  \newkomavar{fromname.position}
80  \newkomavar[Sitz:]{local}
81  \newkomavar[Verkehrsverbindungen]{connections}
```

```
82  ⟨/letter⟩
```

```
83  ⟨/cls⟩
```

5 Documentation preamble `<style>`

```
84 ⟨∗sty⟩
85 ⟨∗style⟩
86 \makeatletter
87 \addtolength\marginparwidth{-4opt}
88 \addtolength\marginparsep{4mm}
89 \addtolength\oddsidemargin{-20pt}
90 \addtolength\evensidemargin{-20pt}
91 \let\PrintDescribeMacro=\@gobble
92 \let\PrintDescribeEnv=\@gobble
93 %  \def\Describe@Macro#1{\endgroup
94 %      %\marginnote{\PrintDescribeMacro{#1}}%
95 %      \SpecialUsageIndex{#1}\@esphack\ignorespaces%
96 %      }
97 %\def\Describe@Env#1{\endgroup
98 %      %\marginnote{\PrintDescribeEnv{#1}}%
99 %      \SpecialEnvIndex{#1}\@esphack\ignorespaces%
100 %      }
101 \makeatother
102 \AtBeginDocument{\normalmarginpar}
103 \setlength\MacrocodeTopsep{\baselineskip}
104 \setlength\MacroIndent{6mm}
105
106
107 \RequirePackage{luatexbase}
108 \RequirePackage[ngerman,english]{babel}
109 \RequirePackage{calc}
110
111 \RequirePackage[
112   paper        = a4paper,  % - use A4 paper size
113   foot         = 2cm,
114   inner        = 3cm,  % - total body: left margin (odd pages)
115   top          = 3cm,  % - total body: top margin
116   outer        = 3cm,  % - total body: right margin (odd pages)
117   bottom       = 3cm,  % - total body: bottom margin
118   marginparwidth = 2cm,  % - width for side note
119   marginparsep  = .5cm,  % - space between notes and body text (content)
120 %  showframe,
121 ]{geometry}
122
123 \newlength\fullwidth
124 \setlength\fullwidth{\textwidth+\marginparwidth+\marginparsep}
125
126 \KOMAoptions{
127 numbers      = noenddot,
128 }
129 \AtBeginDocument{
130   \KOMAoptions{
131 % headwidth  = {\fullwidth},
132 % footwidth  = {\fullwidth},
133 footheight = 20pt,
```

```
134 headheight = 29pt,
135 captions   = tableheading,
136 }}
137
138
139
140 \title{\HUBerlintitle}
141 %\subtitle{\HUBerlinsubtitle}
142 \author{\HUBerlinauthor}
143 \date{\Version}
144
145
146 %---- Required Packages
147 \RequirePackage{ifluatex,luatex85}
148
149
150 \ifluatex% LuaTeX
151 \else
152 \GenericError{HUBerlin}{Please use 'LuaLaTeX' as Compiler.^^J I abort here.}
153 \fi
```

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

```
154 \RequirePackage{fontspec}

155 \RequirePackage[mono=false]{libertine}
156 \RequirePackage{amssymb}
157
158 \defaultfontfeatures{%
159   Ligatures = TeX
160  ,Scale     = MatchLowercase
161  ,Numbers   = OldStyle
162 }
```

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

```
163 \setmainfont[%
164    Ligatures = TeX
165   ,Numbers   = OldStyle]{TeX Gyre Pagella}
```

And we declare also the other fonts, too.

```
166 \setmonofont[Scale=1]{TeX Gyre Cursor}
167 \setsansfont[%
168   ,LetterSpace = .8]{TeX Gyre Adventor-Regular}
169 \linespread{1.05}

170 \newfontfamily\listingsfont[
171   Scale     = MatchLowercase,
172 ]{TeX Gyre Cursor}
173 \renewcommand\MacroFont{\listingsfont}
174
175 \RequirePackage{marginnote}
```

---

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

```
176 \renewcommand*{\marginfont}{%
177   \rule{0pt}{0.7\baselineskip}%
178   \footnotesize%
179   \color{HUBerlin-brown}}
180
181 \RequirePackage[
182   german = guillemets,
183   style  = german,
184 ]{csquotes}
185
186 \RequirePackage{enumitem}
187 \setlist{
188   nosep,
189   % itemindent=1em,
190   % labelindent=0.5\parindent,
191   leftmargin=*}
192 \newlist{tabitemize}{itemize}{2}% neue Listenumgebung
193 \setlist[tabitemize]{%
194   nosep,
195   leftmargin=*
196 }
197 \setlist[tabitemize,1]{label=\labelitemi}
198 \setlist[tabitemize,2]{label=\labelitemii}
199
200
201 \clubpenalty=10000   % prevent single lines at the beginning of a paragraph (Schuste
202 \widowpenalty=10000   % prevent single lines at the end of a paragraph (Hurenkinder)
203 \displaywidowpenalty=10000     %
204
205 \RequirePackage{pdfpages}
206 \RequirePackage{biblatex}
207 \addbibresource{\jobname-bibliography.bib}
208 \addbibresource{\jobname-ctan.bib}
209 \RequirePackage{ccicons} %creative commons
210 \RequirePackage{xparse}
211 \RequirePackage{ragged2e}
212 \RequirePackage{microtype}
213 \RequirePackage{xspace}
214 \RequirePackage{graphicx}
215 \graphicspath{{img/}}
```

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

```
216 \RequirePackage{luaimageembed}

217 \RequirePackage{etoolbox}
218 %https://tex.stackexchange.com/a/235881/98739
219 \AfterEndPreamble{\maketitle}
220
221 % https://tex.stackexchange.com/a/401466/98739
222 \makeatletter
223 \renewcommand*{\maketitle}{%
224   % taken and shortened from /usr/share/texmf/tex/latex/koma-script/scrartcl.cls
225   \begin{titlepage}
```

```
226    \newgeometry{left=3cm,right=3cm,top=1.5cm,bottom=2cm}
227    \global\@topnum=\z@
228    \setparsizes{\z@}{\z@}{\z@\@plus 1fil}\par@updaterelative
229    \null
230     {\large\@author\hfill Guideline and Documentation\par}
231    \vskip 10em%
232 {\begin{center}\color{HUBerlin-blue}
233 {\fontsize{50}{55}\selectfont\HUBerlinshort{} \par\vskip .5em%
234 \Large\sffamily\@title}\par
235 \vskip .5em
236 \end{center}}%
237 {\ifx\@subtitle\@empty\else\usekomafont{subtitle}\@subtitle\par\fi}%
238 \null\vskip 5em%
239 \blockcquote[195]{Hoare1973}{Documentation must be regarded as an integral part of
240 A good programming language will encourage and assist the programmer to write clea
241 self-documenting code,
242 and even perhaps to develop
243 and display a pleasant style
244 of writing.}
245 \null\vfill
246 {\usekomafont{subtitle}{\@date \hfill
247 \includegraphics[width=4cm]{texografie}\\}}%
248    \par
249  \vskip 0em
250    \restoregeometry
251    \end{titlepage}
252 }%
253 \makeatother
254
255 \RequirePackage{xcolor}
256 \definecolor{HUBerlin-blue}{RGB}{0,65,137} % HEX 004189
257 \definecolor{HUBerlin-green}{RGB}{150,190,20} % HEX 93C11A % Topoi
258 \definecolor{HUBerlin-grey}{RGB}{169,169,169}
259 \definecolor{HUBerlin-brown}{RGB}{82,79,60}
260 \definecolor{HUBerlin-red}{RGB}{180,0,0}
261
262
263 \usepackage{dirtree}
264 \renewcommand*\DTstylecomment{%
265    \color{HUBerlin-grey}%
266    \footnotesize%
267    \sffamily}
268 \renewcommand*\DTstyle{%
269    \ttfamily%
270    \small%
271    }
272
273 \RequirePackage[
274    markcase     = noupper,
275    footsepline = .5pt,
276    % headsepline = .5pt,
277    autooneside = false,% use left and right marks with a onesided document
278    automark,% set \leftmark and \rightmark automatically by *\section and \subsecti
```

```
279    draft   = false,
280    ]{scrlayer-scrpage}
281
282  \pagestyle{scrheadings}
283  \clearscrheadfoot
284  \rofoot*{\thepage}
285  \lofoot*{\textcolor{HUBerlin-blue}{\HUBerlintitle}\ \vrule\ \textcolor{HUBerlin-
     brown}{\HUBerlinsubtitle}}
286  \rohead*{HUBerlin-bundle}
287  \lohead*{Version: \Version}

288  % https://tex.stackexchange.com/a/352925/98739
289  \newcommand*\partnumber{}
290  \DeclareNewLayer[
291    background,
292    textarea,
293    addwidth=\marginparsep+\marginparwidth,
294    mode=picture,
295    contents={%
296  \putC{\makebox[opt][c]{\raisebox{-.5\height}{\scalebox{50}{\textcolor{black!5}{\par
297    }
298  ]{partnumber}
299  \DeclareNewPageStyleByLayers{part}{partnumber}
300  \renewcommand\partpagestyle{part}
301  \renewcommand*{\partformat}{\gdef\partnumber{\thepart}}
302
303  % only a dirty workaround for the part title
304  \newcommand*\changedpartwidth[1]{%
305    \makebox[\linewidth][l]{%
306  \parbox{\dimexpr\textwidth+\marginparsep+\marginparwidth\relax}{\raggedpart#1}%
307    }%
308  }
309  % add \changedpartwidth as last command to the settings for font element part
310  \addtokomafont{part}{\Huge\changedpartwidth}
311
312
313
314  %-https://tex.stackexchange.com/a/339516/98739 | https://tex.stackexchange.com/a/9
315  % footnotes in the footer:
316  \deffootnote%
317    %[\normalparindent]%<width of mark>
318    {0.0cm}%<indent of footnote text>
319    {\normalparindent}%<paragraph indent in the footnote text>
320    {\makebox[\normalparindent][r]%
321    {\thefootnotemark\hspace*{3pt}}}%<definition of mark>
322  \newlength{\normalparindent}
323  \AtBeginDocument{\setlength{\normalparindent}{\parindent}}
324    \setfootnoterule{opt}% Kein Fußnotenstrich
325    %\setfootnoterule[<height>]{<length>}
326
```

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

```
327  \renewcommand\sectionlinesformat[4]{%
```

```
328    \makebox[opt][r]{#3}#4%
329 }

330 \RequirePackage{url}
331 %   \urlstyle{same}
332
333 \setkomafont{title}{\sffamily\color{HUBerlin-blue}\flushleft\bfseries}
334 \setkomafont{disposition}{\color{HUBerlin-brown}\sffamily\bfseries\large}
335 \setkomafont{section}{\usekomafont{disposition}}
336 \setkomafont{subsection}{\usekomafont{disposition}}
337 \setkomafont{subsubsection}{\usekomafont{disposition}}
338 % \setkomafont{paragraph}{\bfseries}
339 % \setkomafont{subsubsection}{\sffamilybold}
340 \setkomafont{subtitle}{\large\color{HUBerlin-brown}\sffamily\flushleft}
341 \setkomafont{pageheadfoot}{\footnotesize\sffamily\color{HUBerlin-grey}}
342 \setkomafont{descriptionlabel}{\bfseries}
343 \setkomafont{footnotelabel}{\bfseries}
344 \addtokomafont{titlehead}{\flushright}
345 % \setkomafont{headsepline}{\color{HUBerlin-blue}}
346 %\setkomafont{marginnote}{\MakeUppercase\color{HUBerlin-brown}}
347 \addtokomafont{caption}{\scriptsize}
348 \setkomafont{captionlabel}{\bfseries\sffamily}
349 \setkomafont{subject}{\bfseries\sffamily}
350 \setcapindent{opt}
351
352 \raggedbottom
353
354 \usepackage{listings}
355 \PassOptionsToPackage{final}{listings}
356 \usepackage[%
357    skins
358   ,listings
359   ,breakable
360   ,xparse
361   ,documentation
362 ]{tcolorbox}
363 \lstMakeShortInline[language=TeX,basicstyle=\ttfamily]|
```

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

```
364 \RequirePackage{hyperxmp}
365 \RequirePackage{hyperref}
366 \hypersetup{% setup the hyperref-package options
367    unicode    = true,
368    pdfauthor       = {HUBerlin}, %  - author (PDF meta)
369    pdfauthortitle      = {},
370    pdfcopyright   = {Copyright (c) \the\year . All rights reserved.},
371    pdfhighlight   = /N,
372    pdfdisplaydoctitle = true,
373    pdfdate    = {\today},
374    pdflang    = {},%de en
375    pdfcaptionwriter   = {Lukas C. Bossert},
376    pdfkeywords    = {HUBerlin},
377    pdfencoding    = auto,
```

```
378   pdfproducer    = {HUBerlin with LuaLaTeX},
379   bookmarksnumbered  = true,
380   bookmarksopenlevel = 2,
381   bookmarksopen  = true,
382   bookmarksdepth = 3,
383   colorlinks     = true,    %Colours links instead of ugly boxes
384   urlcolor       = HUBerlin-blue,    %Colour for external hyperlinks
385   linkcolor      = black,   %Colour of internal links
386   citecolor      = black,   %Colour of citations
387   linktoc        = page,
388   pdfborder      = {0 0 0},
389   breaklinks     = true,  %allow line break inside links
390 }
391 \RequirePackage{bookmark}
392
393 \RequirePackage[
394   sort,
395   nameinlink,
396   compress,
397   ngerman,english
398 ]{cleveref}
399
400
401 %---- newcommands
402 \newcommand{\TeXografie}{Lukas C. Bossert
403   (www.TeXografie.de)}
404 \newcommand\HUBerlin{\HUBerlintitle\xspace}
405
406
407 \newcommand\HUBerlinFolder{%
408   \begingroup%
409   \normalfont%
410   \color{HUBerlin-blue}%
411   % \faFolderOpen% taken from fontawesome
412   \hspace{.3em}%
413   \endgroup}
414
415
416
417 \RedeclareSectionCommands[
418   tocraggedpagenumber,
419   toclinefill=\tocpageseparator,
420   tocindent=0em,
421   tocnumwidth=4em,
422   tocpagenumberbox=\tocpagenumberbox% <- added
423 %  tocpagenumberformat=\textsf,
424 ]{chapter,section,subsection,subsubsection,paragraph}
425
426 \newcommand\tocgobble[1]{}% <- added
427 \newcommand\tocpageseparator{\footnotesize\,\mbox{---}\,}
428 \newcommand\tocpagenumberbox[1]{\mbox{#1}}% <- added
429 \KOMAoptions{toc=indentunnumbered}
430
```

```
431 \RedeclareSectionCommand[
432 %   tocbeforeskip=1.25em plus 1pt
433    ,tocentryformat=\large\scshape%
434    ,tocindent=0em
435    ,tocnumwidth=4em
436    ,tocpagenumberbox=\tocgobble% <- added
437 ]{part}
438 %\addtokomafont{partentry}{\scshape\sffamily\bfseries}
439
440 \RedeclareSectionCommand[%
441 %     ,beforeskip=1.15em plus 1pt%
442 ,tocentryformat=\textbf%
443    %   ,toclinefill={\TOCLineLeaderFill}%\TOCLineLeaderFill[\textbf{.}]
444 ]{chapter}
445
446
447
448
449 \newtcolorbox{example}[1][]{
450    breakable,
451    top=5pt,
452    bottom=5pt,
453    colback=HUBerlin-blue!10,
454    colframe=HUBerlin-blue,
455    left=5pt,
456    right=5pt,
457     sharp corners,
458    boxrule=0pt,
459    bottomrule=2pt,
460    toprule=2pt,
461     enhanced jigsaw,
462    lefttitle=0pt,
463    coltitle=white,
464    fonttitle=\bfseries,
465    fontupper=\small,%\ttfamily,
466    % colbacktitle=HUBerlin-blue!20
467    #1,
468 }
469
470 % Replace the squat-u symbol for spaces
471 % https://tex.stackexchange.com/a/488123/98739
472 \makeatletter
473 \def\lst@visiblespace{\lst@ttfamily{\char32}$\textcolor{HUBerlin-grey}{\cdot}$}
474 \makeatother
475
476
477 \lstset{%
478    basicstyle = \linespread{0.7}\listingsfont
479    ,breaklines = true
480    ,breakatwhitespace
481    ,alsoletter=\\\{\}\*\[\]\-
482    ,showstringspaces=true
483    }
```

```
484
485 \lstdefinestyle{HUBerlinlistingstyledef}{%
486   tabsize        = 4,
487   breaklines     = true,
488   breakatwhitespace = true,
489   postbreak=\mbox{$\hookrightarrow$},
490   %keepspaces    = true,
491   escapeinside = {(*@}{@*)},
492   moredelim      = {[is][\ttfamily\bfseries\color{HUBerlin-blue}]{|}{|}},
493   moredelim      = {[is][\ttfamily\bfseries\color{HUBerlin-blue}]{|1}{1|}},
494   moredelim      = {[is][\ttfamily\bfseries\color{HUBerlin-red}]{|2}{2|}},
495   aboveskip=0pt,
496   belowskip=0pt,
497   captionpos=b,
498   resetmargins=true,
499   sensitive=true,
500   upquote=true,
501   showspaces=true,
502   showtabs=true,
503   tab=\textcolor{HUBerlin-grey}{\rightarrowfill},
504   %numbers=left,
505   %numberstyle=\footnotesize\ttfamily\color{HUBerlin-grey},
506   comment        = [l]{\%},
507   commentstyle = \footnotesize\color{HUBerlin-grey}\addfontfeature{LetterSpace=.7},
508   % deletecomment = [l]{\%<}
509   % morecomment   = [l][\nullfont]{\%<},
510   % deletecomment  = [is]{\%<}{>},
511 }
512
513 \lstdefinestyle{HUBerlinlistingstyle}{%
514   language  = {TeX},
515   style     = {HUBerlinlistingstyledef},
516 }
517
518
519
520
521
522
523 \tcbset{%
524 HUBerlinstyle/.style={%
525   enhanced,
526   before skip=2mm,
527   after skip=3mm,
528   boxrule=0.7pt,
529   left=2mm,
530   right=2mm,
531   top=2mm,
532   bottom=2mm,
533   sharp corners,
534   colback=white,
535   colbacklower=white,
536   % fonttitle=\sffamily\bfseries,
```

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```
537    breakable,
538    %before skip=\baselineskip,
539    coltitle=white,
540    colbacktitle=HUBerlin-blue!50!black,
541    fonttitle=\bfseries\sffamily\footnotesize,
542    % before upper={\mynote{\thetcbcounter}},
543    title={\hfill{Example \thetcbcounter}},
544    },
545 codecomment/.style={%
546    listing outside comment,%
547    boxrule=0pt,
548    colback=white,
549    }
550 }
551
552 \newtcolorbox{warning}[1][]{
553    enhanced,
554    before skip=2mm,
555    after skip=3mm,
556    boxrule=0.7pt,
557    left=5mm,
558    right=2mm,
559    top=2mm,
560    bottom=2mm,
561    colback=white,
562    colframe=yellow!20!black,
563    sharp corners,
564    rounded corners=southeast,
565    arc is angular,
566    arc=3mm,
567    underlay={%
568 \path[fill=HUBerlin-grey!80!black] ([yshift=3mm]interior.south east)--
   ++(-0.4,-0.1)--++(0.1,-0.2);
569 \path[draw=HUBerlin-grey,shorten <=-0.05mm,shorten >=-0.05mm] ([yshift=3mm]interio
   ++(-0.4,-0.1)--++(0.1,-0.2);
570 \path[fill=red!50!black,draw=none] (interior.south west) rectangle node[white]{\Huge
571 },
572    drop fuzzy shadow,
573    #1
574    }
575
576 \newtcblisting[%
577    auto counter,
578    crefname   = {example}{examples},
579    Crefname   = {Example}{Examples},
580 ]{codetext}[2][]{%
581    HUBerlinstyle,
582 %   side text,
583    rounded corners=northeast,
584    arc=6mm,
585    listing style=HUBerlinlistingstyle,
586    label = #2,
587    #1,
```

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```
588     }
589
590 \newtcblisting[%
591   use counter from=codetext,
592   crefname={code example}{code examples},
593   Crefname={Code example}{Code examples}%
594 ]{code}[2][]{%
595   HUBerlinstyle,
596   rounded corners=southeast,
597   arc=6mm,
598   listing only,
599   listing style=HUBerlinlistingstyle,
600   label = #2,
601   #1,
602 }
603
604
605 \DeclareTCBInputListing[%
606   use counter from=codetext,
607   crefname={code example}{code examples},
608   Crefname={Code example}{Code examples}%
609 ]{\HUBerlinlisting}{ O{} m }{%
610   HUBerlinstyle,
611   listing file={#2},
612   listing only,
613     listing style=HUBerlinlistingstyle,
614   #1,
615 }
616


617 \makeatletter
618 \newrobustcmd*{\fnurl}[1][]{\hyper@normalise\ltd@fnurl{#1}}
619 \def\ltd@fnurl#1#2{\footnote{#1\hyper@linkurl{\Hurl{#2}}{#2}}}
620 \makeatother
```

The first command is used to refrence packages with: `\\pkg{`*⟨package name⟩*`}`.[2] The name of the package is linked to its entry on CTAN and refrenced to the bibliography in the end of this documentation.

```
621 \RequirePackage{newfile}
622 \newoutputstream{pkglist}

623 \NewDocumentCommand{\pkg}{om}{%
624    \IfNoValueTF{#1}
625 {\lowercase{\href{http://www.ctan.org/pkg/#2}}{\textbf{#2}}}
626 {\lowercase{\href{http://www.ctan.org/pkg/#1-#2}}{\textbf{#2}}}%
627 \space\cite{#2}%
628 \addtostream{pkglist}{#2}}

629 \newrobustcmd*{\lit}[1]{\textsf{#1}}
630 \newrobustcmd*{\Code}[1]{\texttt{#1}}
631 \newrobustcmd*{\tex}{\TeX}
```

---

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

```
632 \newrobustcmd*{\etex}{\mbox{e-TeX}}
633 \newrobustcmd*{\pdftex}{pdf\-\tex}
634 \newrobustcmd*{\xetex}{Xe\-\tex}
635 \newrobustcmd*{\luatex}{Lua\-\tex}
636 \newrobustcmd*{\latex}{\LaTeX}%{La\kern-0.07em TeX}
637 \newrobustcmd*{\pdflatex}{pdf\-\latex}
638 \newrobustcmd*{\xelatex}{Xe\-\latex}
639 \newrobustcmd*{\lualatex}{Lua\-\latex}
640 \newrobustcmd*{\miktex}{Mik\-\tex}
641 \newrobustcmd*{\texlive}{\tex~live}
642 \newrobustcmd*{\bibtex}{Bib\kern-0.07em TeX}
643 \newrobustcmd*{\lppl}{\latex{} Project Public License}
644 \newrobustcmd*{\pdf}{{PDF}}
645 \newrobustcmd*{\md}{{MarkDown}}
646 \newrobustcmd*{\utf}{\mbox{{UTF}-8}}
647 % no \mbox here, we may have to break things
648 \newrobustcmd*{\bibfield}[1]{\Code{#1}}
649 \newrobustcmd*{\opt}[1]{\Code{#1}}
650 \newrobustcmd*{\bibmacro}[1]{\Code{#1}}
651 \newrobustcmd*{\bibtype}[1]{\Code{@#1}}
652 %\renewrobustcmd*{\cmd}[1]{\Code{\textbackslash #1}}
653 \renewrobustcmd\meta[1]{\normalfont{\textlangle}{\itshape#1\/}{\textrangle}}
654
655 % directly taken from ltxdoc.dtx
656 \renewrobustcmd\marg[1]{%
657   {\ttfamily\textcolor{HUBerlin-red}{\{}}%
658     \meta{#1}%
659   {\ttfamily\textcolor{HUBerlin-red}{\}}}%
660   }
661
662 \renewrobustcmd\oarg[1]{%
663   {\ttfamily\textcolor{HUBerlin-green}{[}}%
664     \meta{#1}%
665   {\ttfamily\textcolor{HUBerlin-green}{]}}%
666   }
667
668 % adapted from listings.dtx (lstdoc.sty)
669 \renewrobustcmd\cmd[1]{%
670   \texttt{\color{HUBerlin-blue}\textbackslash\string#1}\xspace%
671   }
672
673 \newrobustcmd\env[2][]{%
674   \texttt{%
675 \color{HUBerlin-blue}%
676 \textbackslash begin\{\string#2\}#1}%
677   \ldots
678   \texttt{%
679 \color{HUBerlin-blue}%
680 \textbackslash end\{\string#2\}}%
681   \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*⟩}.

```
682  \newcommand\param[1]{%
683    \begingroup%
684    \normalfont%
685    \ttfamily%
686    \bfseries%
687    \textless%
688    #1%
689    \ttfamily%
690    \bfseries%
691    \textgreater%
692    \endgroup}

693  \pdfstringdefDisableCommands{%
694    \def\lstinline#1{<#1>}
695    \def\tex{TeX}%
696    \def\etex{e-TeX}%
697    \def\xetex{XeTeX}%
698    \def\latex{LaTeX}%
699    \def\xelatex{XeLaTeX}%
700    \def\bibtex{BibTeX}%
701    \def\lppl{LaTeX Project Public License}%
702    \def\pdf{PDF}%
703    \def\utf{UTF-8}%
704    \def\\{}%
705    \def\texttt#1{<#1>}%
706    \def\marg#1{\{#1\}}%
707    \def\oarg#1{[#1]}%
708    \def\color#1#2{}%
709    \def\env#1{<#1>}
710    \def\cmd#1{#1}
711  }
712  % https://tex.stackexchange.com/a/24067/98739
713  \makeatletter
714  \patchcmd{\scr@startchapter}{\if@openright\cleardoublepage\else\clearpage\fi}{}{}{}
715  \makeatother
716  %
717  \usepackage[tightLists=false]{markdown}
718  \markdownSetup{rendererPrototypes={%
719  link = {\href{#3}{#1}}%
720  }}
721  ⟨/style⟩

722  ⟨/sty⟩
```
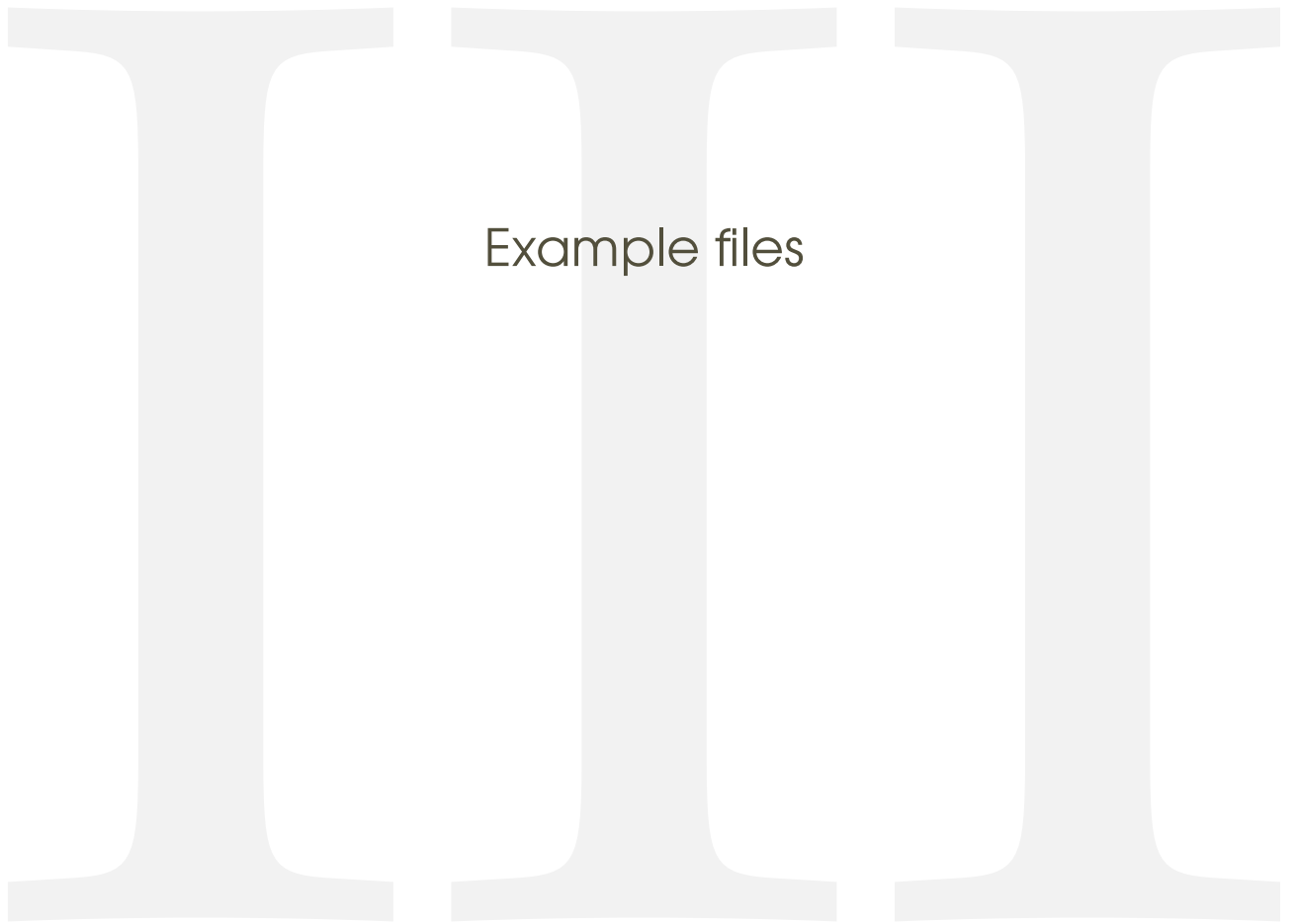
Bibliography

[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

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14. Mai 2019

Betreff

Sehr geehrte Frau Musterfrau,

hier kommt der Text hin.

Mit freundlichen Grüßen,

Claudia Tiersch

PS: ...

Anlage(n): Anlage 1
　　　　　　 Anlage 2

Verteiler: Verteiler 1
　　　　　　 Verteiler 2