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=5cm]{img/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\\
```
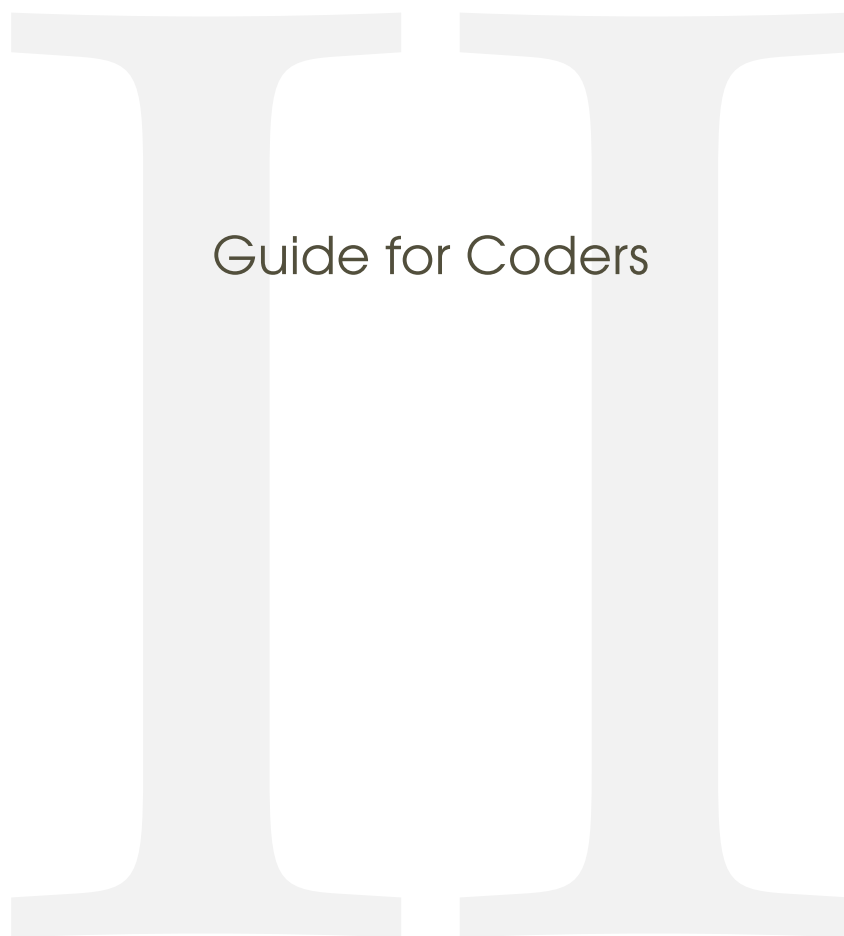
```
95 ⟨/letter⟩
96 ⟨/example⟩
```

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   HU BERLIN
64   % \includegraphics[width=.8\linewidth]{img/hu-logo.png}
65   }%
66 }
67
68 \setkomavar{title}{}
69 \setkomavar{date}{\today}
```

We define new `komavar`s.

```
70 \newkomavar{institute}%
71 \newkomavar{institute.head}%
72 \newkomavar{institute.head.position}%
73 \newkomavar{institute.head.mail}%
74 \newkomavar{institute.logo}%
75 \newkomavar{fromname.position}
76 \newkomavar[Sitz:]{local}
77 \newkomavar[Verkehrsverbindungen]{connections}
```

```
78 ⟨/letter⟩
```

```
79 ⟨/cls⟩
```

5 Documentation preamble `<style>`

```
80 ⟨*sty⟩
81 ⟨*style⟩
82 \makeatletter
83 \addtolength\marginparwidth{-40pt}
84 \addtolength\marginparsep{4mm}
85 \addtolength\oddsidemargin{-20pt}
86 \addtolength\evensidemargin{-20pt}
87 \let\PrintDescribeMacro=\@gobble
88 \let\PrintDescribeEnv=\@gobble
89 %  \def\Describe@Macro#1{\endgroup
90 %      %\marginnote{\PrintDescribeMacro{#1}}%
91 %      \SpecialUsageIndex{#1}\@esphack\ignorespaces%
92 %      }
93 %\def\Describe@Env#1{\endgroup
94 %      %\marginnote{\PrintDescribeEnv{#1}}%
95 %      \SpecialEnvIndex{#1}\@esphack\ignorespaces%
96 %      }
97 \makeatother
98 \AtBeginDocument{\normalmarginpar}
99 \setlength\MacrocodeTopsep{\baselineskip}
100 \setlength\MacroIndent{6mm}
101
102
103 \RequirePackage{luatexbase}
104 \RequirePackage[ngerman,english]{babel}
105 \RequirePackage{calc}
106
107 \RequirePackage[
108   paper       = a4paper,  % – use A4 paper size
109   foot        = 2cm,
110   inner       = 3cm,  % – total body: left margin (odd pages)
111   top         = 3cm,  % – total body: top margin
112   outer       = 3cm,  % – total body: right margin (odd pages)
113   bottom      = 3cm,  % – total body: bottom margin
114   marginparwidth = 2cm,  % – width for side note
115   marginparsep  = .5cm,  % – space between notes and body text (content)
116 %  showframe,
117 ]{geometry}
118
119 \newlength\fullwidth
120 \setlength\fullwidth{\textwidth+\marginparwidth+\marginparsep}
121
122 \KOMAoptions{
123 numbers      = noenddot,
124 }
125 \AtBeginDocument{
126   \KOMAoptions{
127 % headwidth  = {\fullwidth},
128 % footwidth  = {\fullwidth},
129 footheight = 20pt,
```

```
130 headheight = 29pt,
131 captions   = tableheading,
132 }}
133
134
135
136 \title{\HUBerlintitle}
137 %\subtitle{\HUBerlinsubtitle}
138 \author{\HUBerlinauthor}
139 \date{\Version}
140
141
142 %---- Required Packages
143 \RequirePackage{ifluatex,luatex85}
144
145
146 \ifluatex% LuaTeX
147 \else
148 \GenericError{HUBerlin}{Please use 'LuaLaTeX' as Compiler.^^J I abort here.}
149 \fi
```

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

```
150 \RequirePackage{fontspec}

151 \RequirePackage[mono=false]{libertine}
152 \RequirePackage{amssymb}
153
154 \defaultfontfeatures{%
155   Ligatures = TeX
156  ,Scale     = MatchLowercase
157  ,Numbers   = OldStyle
158 }
```

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

```
159 \setmainfont[%
160     Ligatures = TeX
161   ,Numbers    = OldStyle]{TeX Gyre Pagella}
```

And we declare also the other fonts, too.

```
162 \setmonofont[Scale=1]{TeX Gyre Cursor}
163 \setsansfont[%
164   ,LetterSpace = .8]{TeX Gyre Adventor-Regular}
165 \linespread{1.05}

166 \newfontfamily\listingsfont[
167   Scale     = MatchLowercase,
168 ]{TeX Gyre Cursor}
169 \renewcommand\MacroFont{\listingsfont}
170
171 \RequirePackage{marginnote}
```

---

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

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


212 \RequirePackage{etoolbox}
213 %https://tex.stackexchange.com/a/235881/98739
214 \AfterEndPreamble{\maketitle}
215
216 % https://tex.stackexchange.com/a/401466/98739
217 \makeatletter
218 \renewcommand*{\maketitle}{%
219   % taken and shortened from /usr/share/texmf/tex/latex/koma-script/scrartcl.cls
220   \begin{titlepage}
221   \newgeometry{left=3cm,right=3cm,top=1.5cm,bottom=2cm}
222   \global\@topnum=\z@
223   \setparsizes{\z@}{\z@}{\z@\@plus 1fil}\par@updaterelative
```

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

```
277 \pagestyle{scrheadings}
278 \clearscrheadfoot
279 \rofoot*{\thepage}
280 \lofoot*{\textcolor{HUBerlin-blue}{\HUBerlintitle}\ \vrule\ \textcolor{HUBerlin-
    brown}{\HUBerlinsubtitle}}
281 \rohead*{HUBerlin-bundle}
282 \lohead*{Version: \Version}

283 % https://tex.stackexchange.com/a/352925/98739
284 \newcommand*\partnumber{}
285 \DeclareNewLayer[
286   background,
287   textarea,
288   addwidth=\marginparsep+\marginparwidth,
289   mode=picture,
290   contents={%
291 \putC{\makebox[opt][c]{\raisebox{-.5\height}{\scalebox{50}{\textcolor{black!5}{\pa
292   }
293 ]{partnumber}
294 \DeclareNewPageStyleByLayers{part}{partnumber}
295 \renewcommand\partpagestyle{part}
296 \renewcommand*{\partformat}{\gdef\partnumber{\thepart}}
297
298 % only a dirty workaround for the part title
299 \newcommand*\changedpartwidth[1]{%
300   \makebox[\linewidth][l]{%
301 \parbox{\dimexpr\textwidth+\marginparsep+\marginparwidth\relax}{\raggedpart#1}%
302   }%
303 }
304 % add \changedpartwidth as last command to the settings for font element part
305 \addtokomafont{part}{\Huge\changedpartwidth}
306
307
308
309 %-https://tex.stackexchange.com/a/339516/98739 | https://tex.stackexchange.com/a/96
310 % footnotes in the footer:
311 \deffootnote%
312   %[\normalparindent]%<width of mark>
313   {0.ocm}%<indent of footnote text>
314   {\normalparindent}%<paragraph indent in the footnote text>
315   {\makebox[\normalparindent][r]%
316   {\thefootnotemark\hspace*{3pt}}}%<definition of mark>
317 \newlength{\normalparindent}
318 \AtBeginDocument{\setlength{\normalparindent}{\parindent}}
319  \setfootnoterule{opt}% Kein Fußnotenstrich
320  %\setfootnoterule[<height>]{<length>}
321
```

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

```
322 \renewcommand\sectionlinesformat[4]{%
323   \makebox[opt][r]{#3}#4%
324 }
```

```
325 \RequirePackage{url}
326 %   \urlstyle{same}
327
328 \setkomafont{title}{\sffamily\color{HUBerlin-blue}\flushleft\bfseries}
329 \setkomafont{disposition}{\color{HUBerlin-brown}\sffamily\bfseries\large}
330 \setkomafont{section}{\usekomafont{disposition}}
331 \setkomafont{subsection}{\usekomafont{disposition}}
332 \setkomafont{subsubsection}{\usekomafont{disposition}}
333 % \setkomafont{paragraph}{\bfseries}
334 % \setkomafont{subsubsection}{\sffamilybold}
335 \setkomafont{subtitle}{\large\color{HUBerlin-brown}\sffamily\flushleft}
336 \setkomafont{pageheadfoot}{\footnotesize\sffamily\color{HUBerlin-grey}}
337 \setkomafont{descriptionlabel}{\bfseries}
338 \setkomafont{footnotelabel}{\bfseries}
339 \addtokomafont{titlehead}{\flushright}
340 % \setkomafont{headsepline}{\color{HUBerlin-blue}}
341 %\setkomafont{marginnote}{\MakeUppercase\color{HUBerlin-brown}}
342 \addtokomafont{caption}{\scriptsize}
343 \setkomafont{captionlabel}{\bfseries\sffamily}
344 \setkomafont{subject}{\bfseries\sffamily}
345 \setcapindent{opt}
346
347 \raggedbottom
348
349 \usepackage{listings}
350 \PassOptionsToPackage{final}{listings}
351 \usepackage[%
352    skins
353   ,listings
354   ,breakable
355   ,xparse
356   ,documentation
357 ]{tcolorbox}
358 \lstMakeShortInline[language=TeX,basicstyle=\ttfamily]|
```

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

```
359 \RequirePackage{hyperxmp}
360 \RequirePackage{hyperref}
361 \hypersetup{% setup the hyperref-package options
362   unicode     = true,
363   pdfauthor       = {HUBerlin}, %   - author (PDF meta)
364   pdfauthortitle     = {},
365   pdfcopyright  = {Copyright (c) \the\year . All rights reserved.},
366   pdfhighlight   = /N,
367   pdfdisplaydoctitle = true,
368   pdfdate    = {\today},
369   pdflang     = {},%de en
370   pdfcaptionwriter   = {Lukas C. Bossert},
371   pdfkeywords     = {HUBerlin},
372   pdfencoding     = auto,
373   pdfproducer     = {HUBerlin with LuaLaTeX},
374   bookmarksnumbered = true,
375   bookmarksopenlevel = 2,
```

```
376    bookmarksopen   = true,
377    bookmarksdepth = 3,
378    colorlinks      = true,     %Colours links instead of ugly boxes
379    urlcolor        = HUBerlin-blue,     %Colour for external hyperlinks
380    linkcolor       = black,     %Colour of internal links
381    citecolor       = black,     %Colour of citations
382    linktoc         = page,
383    pdfborder       = {0 0 0},
384    breaklinks      = true,    %allow line break inside links
385 }
386 \RequirePackage{bookmark}
387
388 \RequirePackage[
389    sort,
390    nameinlink,
391    compress,
392    ngerman,english
393 ]{cleveref}
394
395
396 %---- newcommands
397 \newcommand{\TeXografie}{Lukas C. Bossert
398    (www.TeXografie.de)}
399 \newcommand\HUBerlin{\HUBerlintitle\xspace}
400
401
402 \newcommand\HUBerlinFolder{%
403    \begingroup%
404    \normalfont%
405    \color{HUBerlin-blue}%
406    % \faFolderOpen% taken from fontawesome
407    \hspace{.3em}%
408    \endgroup}
409
410
411
412 \RedeclareSectionCommands[
413    tocraggedpagenumber,
414    toclinefill=\tocpageseparator,
415    tocindent=0em,
416    tocnumwidth=4em,
417    tocpagenumberbox=\tocpagenumberbox% <- added
418 %  tocpagenumberformat=\textsf,
419 ]{chapter,section,subsection,subsubsection,paragraph}
420
421 \newcommand\tocgobble[1]{}% <- added
422 \newcommand\tocpageseparator{\footnotesize\,\mbox{---}\,}
423 \newcommand\tocpagenumberbox[1]{\mbox{#1}}% <- added
424 \KOMAoptions{toc=indentunnumbered}
425
426 \RedeclareSectionCommand[
427 %  tocbeforeskip=1.25em plus 1pt
428    ,tocentryformat=\large\scshape%
```

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

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

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

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


612 \makeatletter
613 \newrobustcmd*{\fnurl}[1][]{\hyper@normalise\ltd@fnurl{#1}}
614 \def\ltd@fnurl#1#2{\footnote{#1\hyper@linkurl{\Hurl{#2}}{#2}}}
615 \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.

```
616 \RequirePackage{newfile}
617 \newoutputstream{pkglist}

618 \NewDocumentCommand{\pkg}{om}{%
619    \IfNoValueTF{#1}
620 {\lowercase{\href{http://www.ctan.org/pkg/#2}}{\textbf{#2}}}
621 {\lowercase{\href{http://www.ctan.org/pkg/#1-#2}}{\textbf{#2}}}%
622 \space\cite{#2}%
623 \addtostream{pkglist}{#2}}

624 \newrobustcmd*{\lit}[1]{\textsf{#1}}
625 \newrobustcmd*{\Code}[1]{\texttt{#1}}
626 \newrobustcmd*{\tex}{\TeX}
627 \newrobustcmd*{\etex}{\mbox{e-TeX}}
628 \newrobustcmd*{\pdftex}{pdf\-\tex}
629 \newrobustcmd*{\xetex}{Xe\-\tex}
```

---

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

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

```
677 \newcommand\param[1]{%
678   \begingroup%
679   \normalfont%
```

```
680    \ttfamily%
681    \bfseries%
682    \textless%
683    #1%
684    \ttfamily%
685    \bfseries%
686    \textgreater%
687    \endgroup}

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


717 ⟨/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

HU BERLIN

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

Geschäftsführende Direktorin
Prof. Dr. Claudia Tiersch

**Wissenschaftlicher Koordinator
Dr. Lukas C. Bossert**

Humboldt-Universität zu Berlin
Unter den Linden 6
10099 Berlin

Sitz: Mohrenstraße 40/41
Raum 14
10117 Berlin
Telefon: 49 [030] 2093-70440

claudia.tiersch@hu-berlin.de
bosserlu@hu-berlin.de
www.antikezentrum.hu-berlin.de

14. Mai 2019

Erika Musterfrau
Musterweg 43
56789 Musterhausen

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