# Libertine Hologo Patch

v0.3      2013/03/22

Patching the logos provided by the hologo package when used together with the libertine package and pdfLaTeX.

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English documentation

## From (LA)TEX to (LA)TEX

## Contents

## 1 License and Requirements

LIBERTINEHOLOGOPATCH is placed under the terms of the LaTeX Project Public License, version 1.3 or later (http://www.latex-project.org/lppl.txt). It has the status "maintained."

LIBERTINEHOLOGOPATCH loads and needs the packages etoolbox[1], hologo[2] and libertine[3].

## 2 Options

There are a few package options:

`verbose`

Inform when patching is successful and warn if it fails. This is the default behaviour.

---

[1] CTAN: etoolbox    [2] CTAN: hologo    [3] CTAN: libertine

**silent**

Neither inform nor warn if patching succeeds or fails.

**errors**

Issue an error instead of a warning if patching fails.

**shortcuts**

(Re-) Define shortcuts for common logos to use the newly patched hologo logos: `\TeX` TeX, `\LaTeX` LaTeX, `\LaTeXe` LaTeX 2$_\varepsilon$, `\LaTeXTeX` (LA)TeX, `\pdfTeX` pdfTeX, `\pdfLaTeX` pdfLaTeX, `\XeTeX` XeTeX, `\XeLaTeX` XeLaTeX, `\LuaTeX` LuaTeX, `\LuaLaTeX` LuaLaTeX. This is default behaviour.

**noshortcuts**

Don't (re-) define above mentioned logos.


## 3  Usage

The hologo package by Heiko Oberdiek provides a comprehensive list of and access to the most common TeX-related logos. However, the kerning values it uses are optimized for use with TeX's standard font, Computer Modern. I happen to like the Linux Libertine O and Linux Biolinum O fonts very much. They are used in this documentation as well. Unfortunately many of the logos look bad with these fonts to say the least:

```
1   \restorelogos\huge
2   \LaTeX, \XeLaTeX, \LaTeXTeX \par
3   \textit{\LaTeX, \XeLaTeX, \LaTeXTeX}
4
5   \sffamily
6   \LaTeX, \XeLaTeX, \LaTeXTeX \par
7   \textit{\LaTeX, \XeLaTeX, \LaTeXTeX}
```

What LIBERTINEHOLOGOPATCH does is it checks if one of these fonts is used and changes the kerning then:

```
1   \huge
2   \LaTeX, \XeLaTeX, \LaTeXTeX \par
3   \textit{\LaTeX, \XeLaTeX, \LaTeXTeX}
4
5   \sffamily
6   \LaTeX, \XeLaTeX, \LaTeXTeX \par
7   \textit{\LaTeX, \XeLaTeX, \LaTeXTeX}
```

All you have to do is load the package in the usual LaTeX 2$_\varepsilon$ way:

```
1   \usepackage{libertinehologopatch}
```

and all the logos will be patched appropriately.

LIBERTINEHOLOGOPATCH defines additional user macros:

`\restorelogos`

Restores the original definitions of the logo commands, the scope is local.

`\originallogo{<logo>}`

This command takes the same argument as `\hologo` and outputs the unpatched version of the respective logo. It uses `\restorelogos` internally.

`\Originallogo{<logo>}`

This command takes the same argument as `\Hologo` and outputs the unpatched version of the respective uppercased logo. It uses `\restorelogos` internally.

## 4 Implementation

```
1   % --------------------------------------------------------------------------------
2   % the LIBERTINEHOLOGOPATCH package
3   %
4   %   patch kerning of hologo's logos for usage with the 'libertine' package
5   %
6   % --------------------------------------------------------------------------------
7   % Clemens Niederberger
8   % Web:    https://bitbucket.org/cgnieder/libertinehologopatch/
9   % E-Mail: contact@mychemistry.eu
10  % --------------------------------------------------------------------------------
11  % Copyright 2013 Clemens Niederberger
12  %
13  % This work may be distributed and/or modified under the
14  % conditions of the LaTeX Project Public License, either version 1.3
15  % of this license or (at your option) any later version.
16  % The latest version of this license is in
17  %   http://www.latex-project.org/lppl.txt
18  % and version 1.3 or later is part of all distributions of LaTeX
19  % version 2005/12/01 or later.
20  %
21  % This work has the LPPL maintenance status 'maintained'.
22  %
23  % The Current Maintainer of this work is Clemens Niederberger.
24  % --------------------------------------------------------------------------------
25  % The libertinehologopatch package consists of the files
26  %  - libertinehologopatch.sty
27  %  - libertinehologopatch_en.tex, libertinehologopatch_en.pdf
28  %  - README
29  % --------------------------------------------------------------------------------
30  % If you have any ideas, questions, suggestions or bugs to report, please
31  % feel free to contact me.
```

```latex
% -------------------------------------------------------------------------
\def\lbthlpt@date{2013/03/22}
\def\lbthlpt@version{v0.3}
\def\lbthlpt@description{%
  patch kerning of logos provided by 'hologo' for use with 'libertine' (CN)}

\ProvidesPackage{libertinehologopatch}%
  [\lbthlpt@date\space\lbthlpt@version\space\lbthlpt@description]
\RequirePackage{etoolbox}
\RequirePackage{ifxetex}
\RequirePackage{hologo}[2012/04/26]
\RequirePackage{libertine}[2013/01/25]

% pdfLaTeX:
\def\lbthlpt@family@biolinum{LinuxBiolinumT}
\def\lbthlpt@family@biolinumOsF{LinuxBiolinumT-OsF}
\def\lbthlpt@family@biolinumLF{LinuxBiolinumT-LF}
\def\lbthlpt@family@biolinumTOsF{LinuxBiolinumT-TOsF}
\def\lbthlpt@family@biolinumTLF{LinuxBiolinumT-TLF}

\def\lbthlpt@family@libertine{LinuxLibertineT}
\def\lbthlpt@family@libertineOsF{LinuxLibertineT-OsF}
\def\lbthlpt@family@libertineLF{LinuxLibertineT-LF}
\def\lbthlpt@family@libertineTOsF{LinuxLibertineT-TOsF}
\def\lbthlpt@family@libertineTLF{LinuxLibertineT-TLF}

\def\lbthlpt@family@libertineDisplayTLF{LinuxLibertineDisplayT-TLF}
\def\lbthlpt@family@libertineDisplayTOsF{LinuxLibertineDisplayT-TOsF}

% XeLaTeX/LuaLaTeX:
\def\lbthlpt@libertine@base{LinLibertine(0)}
\def\lbthlpt@biolinum@base{LinBiolinum(0)}

% -------------------------------------------------------------------------
% package options:
\newbool{lbthlpt@silent}
\newbool{lbthlpt@verbose}
\newbool{lbthlpt@errors}
\newbool{lbthlpt@shortcuts}

% default behaviour:
\booltrue{lbthlpt@verbose}
\booltrue{lbthlpt@shortcuts}

\DeclareOption{silent}{%
  \booltrue{lbthlpt@silent}%
  \boolfalse{lbthlpt@verbose}%
  \boolfalse{lbthlpt@errors}%
}
```

```
81  \DeclareOption{verbose}{%
82    \boolfalse{lbthlpt@silent}%
83    \booltrue{lbthlpt@verbose}%
84    \boolfalse{lbthlpt@errors}%
85  }
86  \DeclareOption{errors}{%
87    \boolfalse{lbthlpt@silent}%
88    \boolfalse{lbthlpt@errors}%
89    \booltrue{lbthlpt@errors}%
90  }
91  \DeclareOption{shortcuts}
92    {\booltrue{lbthlpt@shortcuts}}
93  \DeclareOption{noshortcuts}
94    {\boolfalse{lbthlpt@shortcuts}}
95
96  \ProcessOptions*\relax
97
98  \def\lbthlpt@failure#1#2{%
99    \ifbool{lbthlpt@verbose}
100     {%
101       \PackageWarning{libertinehologopatch}
102         {Patching of logo '#1' (\string#2) failed.}%
103     }{}%
104    \ifbool{lbthlpt@errors}
105     {%
106       \PackageError{libertinehologopatch}
107         {Patching of logo '#1' (\string#2) failed.}
108         {Patching of logo '#1' (\string#2) failed.}%
109     }{}%
110  }
111  \def\lbthlpt@success#1#2{%
112    \ifboolexpe{ bool {lbthlpt@verbose} or bool {lbthlpt@errors} }
113     {%
114       \PackageInfo{libertinehologopatch}
115         {Patching of logo '#1' (\string#2) successful.}%
116     }{}
117  }
118
119  % ------------------------------------------------------------------------
120  % some conditionals:
121  % wrap \ifx:
122  \def\lbthlpt@ifx#1#2{%
123    \ifx#1#2%
124      \expandafter\@firstoftwo
125    \else
126      \expandafter\@secondoftwo
127    \fi
128  }
129
```

```latex
% test for biolinum:
\def\lbthlpt@ifbiolinum{%
  \ifboolexpe{
    test {\lbthlpt@ifx\f@family\lbthlpt@family@biolinum} or
    test {\lbthlpt@ifx\f@family\lbthlpt@family@biolinumOsF} or
    test {\lbthlpt@ifx\f@family\lbthlpt@family@biolinumLF} or
    test {\lbthlpt@ifx\f@family\lbthlpt@family@biolinumTOsF} or
    test {\lbthlpt@ifx\f@family\lbthlpt@family@biolinumTLF} or
    test {\lbthlpt@ifx\lbthlpt@biolinum@base\f@family}
  }
}

% test for libertine:
\def\lbthlpt@iflibertine{%
  \ifboolexpe{
    test {\lbthlpt@ifx\f@family\lbthlpt@family@libertine} or
    test {\lbthlpt@ifx\f@family\lbthlpt@family@libertineOsF} or
    test {\lbthlpt@ifx\f@family\lbthlpt@family@libertineLF} or
    test {\lbthlpt@ifx\f@family\lbthlpt@family@libertineTOsF} or
    test {\lbthlpt@ifx\f@family\lbthlpt@family@libertineTLF} or
    test {\lbthlpt@ifx\f@family\lbthlpt@family@libertineDisplayTOsF} or
    test {\lbthlpt@ifx\f@family\lbthlpt@family@libertineDisplayTLF} or
    test {\lbthlpt@ifx\lbthlpt@libertine@base\f@family}
  }
}

% test for xetex and luatex:
\def\lbthlpt@ifxeorlua{%
  \ifboolexpe{
    bool {xetex} or
    bool {luatex}
  }
}

% -----------------------------------------------------------------------------
% tests for different font properties:
\def\lbthlpt@property#1{\csdef{lbthlpt@#1}{#1}}
\lbthlpt@property{it}
\lbthlpt@property{si}% with fontspec: sc+it
\lbthlpt@property{sc}
\lbthlpt@property{bx}% bold extended
\lbthlpt@property{sb}% semi-bold

% test for italics:
\def\lbthlpt@ifit{%
  \ifboolexpe{
    test {\lbthlpt@ifx\f@shape\lbthlpt@it} or
    test {\lbthlpt@ifx\f@shape\lbthlpt@si}
  }
```

```
179   }

180
181   % test for small caps:
182   \def\lbthlpt@ifsc{%
183     \lbthlpt@ifx\f@shape\lbthlpt@sc
184   }

185
186   % test for boldface:
187   \def\lbthlpt@ifbf{%
188     \ifboolexpe{
189       test {\lbthlpt@ifx\f@series\lbthlpt@bx} or
190       test {\lbthlpt@ifx\f@series\lbthlpt@sb}
191     }
192   }

193
194   % test: biolinum or libertine or none
195   \def\lbthlpt@fonttest#1#2#3{%
196     \lbthlpt@ifbiolinum
197       {#1}
198       {\lbthlpt@iflibertine{#2}{#3}}%
199   }

200
201   % --------------------------------------------------------------------------------
202   % save unpatched versions:
203   \def\lbthlpt@saved@logos{}
204   \newcommand*\lbthlpt@save[1]{%
205     \csletcs{lbthlpt@unpatched@#1}{HoLogo@#1}%
206     \listadd\lbthlpt@saved@logos{#1}}

207
208   % restore unpatched versions:
209   \newcommand*\lbthlpt@restore[1]{%
210     \csletcs{HoLogo@#1}{lbthlpt@unpatched@#1}}

211
212   % restore originals
213   \def\lbthlpt@restore@originals{%
214     \forlistloop\lbthlpt@restore\lbthlpt@saved@logos}
215   \newrobustcmd\restorelogos{%
216     \lbthlpt@restore@originals}

217
218   % get unpatched logo:
219   \newcommand*\lbthlpt@get@unpatched[2]{%
220     \begingroup
221       \lbthlpt@restore@originals
222       #1{#2}%
223     \endgroup}
224   \newrobustcmd*\originallogo[1]{%
225     \lbthlpt@get@unpatched\hologo{#1}}
226   \newrobustcmd*\Originallogo[1]{%
227     \lbthlpt@get@unpatched\Hologo{#1}}
```

```
228
229  % --------------------------------------------------------------------------
230  % the patching
231  % enable consecutive patching by inserting a leading 0 -- this prevents
232  % wrong patching if a new value happens to be one of the old ones
233  %
234  %%% La: between L and A
235  \lbthlpt@save{La}
236  \patchcmd\HoLogo@La
237    {\kern-.36em}
238    {%
239      \lbthlpt@fonttest
240        {\lbthlpt@ifit{\kern-0.23em}{\kern-0.28em}}
241        {\lbthlpt@ifit{\kern-0.26em}{\kern-0.31em}}
242        {\kern-0.36em}%
243    }
244    {\lbthlpt@success{La}{\HoLogo@La}}
245    {\lbthlpt@failure{La}{\HoLogo@La}}
246
247  %%% TeX
248  % between T and eX
249  \lbthlpt@save{TeX}
250  \patchcmd\HoLogo@TeX
251    {\kern-.1667em}
252    {%
253      \lbthlpt@fonttest
254        {\lbthlpt@ifit{\kern-0.2000em}{\kern-0.1667em}}
255        {\lbthlpt@ifit{\kern-0.1667em}{\kern-0.1667em}}
256        {\kern-0.1667em}%
257    }
258    {\lbthlpt@success{TeX}{\HoLogo@TeX}}
259    {\lbthlpt@failure{TeX}{\HoLogo@TeX}}
260  % between Te and X
261  \patchcmd\HoLogo@TeX
262    {\kern-.125em}
263    {%
264      \lbthlpt@fonttest
265        {\lbthlpt@ifit{\kern-0.065em}{\kern-0.105em}}
266        {\lbthlpt@ifit{\kern-0.085em}{\kern-0.120em}}
267        {\kern-0.125em}%
268    }
269    {\lbthlpt@success{TeX}{\HoLogo@TeX}}
270    {\lbthlpt@failure{TeX}{\HoLogo@TeX}}
271
272  %%% LaTeX: between La and TeX
273  \lbthlpt@save{LaTeX}
274  \patchcmd\HoLogo@LaTeX
275    {\kern-.15em}
276    {%
```

```
277      \lbthlpt@fonttest
278        {\lbthlpt@ifit{\kern-0.13em}{\kern-0.085em}}
279        {\lbthlpt@ifit{\kern-0.13em}{\kern-0.10em}}
280        {\kern-0.15em}%
281    }
282    {\lbthlpt@success{LaTeX}{\HoLogo@LaTeX}}
283    {\lbthlpt@failure{LaTeX}{\HoLogo@LaTeX}}
284
285 %%% Xe: between X and e
286 \lbthlpt@save{Xe}
287 \patchcmd\HoLogo@Xe
288    {\kern-.1em}
289    {%
290      \lbthlpt@fonttest
291        {% biolinum
292          \lbthlpt@ifit
293            {%
294              \lbthlpt@ifxeorlua
295                {\lbthlpt@ifbf{\kern-0.05em}{\kern-0.18em}}
296                {\kern-0.05em}%
297            }
298            {%
299              \lbthlpt@ifxeorlua
300                {\lbthlpt@ifbf{\kern-0.1em}{\kern-0.12em}}
301                {\kern-0.1em}%
302            }%
303        }
304        {% libertine
305          \lbthlpt@ifit
306            {%
307              \lbthlpt@ifxeorlua
308                {\lbthlpt@ifbf{\kern-0.05em}{\kern-0.18em}}
309                {\kern-0.05em}%
310            }
311            {\kern-0.1em}%
312        }
313        {\kern-0.1em}%
314    }
315    {\lbthlpt@success{Xe}{\HoLogo@Xe}}
316    {\lbthlpt@failure{Xe}{\HoLogo@Xe}}
317
318 %%% XeTeX: between Xe and TeX
319 \lbthlpt@save{XeTeX}
320 \patchcmd\HoLogo@XeTeX
321    {\kern-.15em}
322    {%
323      \lbthlpt@fonttest
324        {% biolinum
325          \lbthlpt@ifit
```

9

```
326        {%
327          \lbthlpt@ifxeorlua
328            {\lbthlpt@ifbf{\kern-0.15em}{\kern-0.10em}}
329            {\kern-0.24em}%
330        }
331        {\kern-0.15em}%
332      }
333    {% libertine
334      \lbthlpt@ifit
335        {%
336          \lbthlpt@ifxeorlua
337            {\lbthlpt@ifbf{\kern-0.235em}{\kern-0.1em}}
338            {\kern-0.235em}%
339        }
340        {%
341          \lbthlpt@ifxeorlua
342            {\kern-0.18em}
343            {\kern-0.15em}%
344        }%
345      }
346      {\kern-0.15em}%
347    }
348    {\lbthlpt@success{XeTeX}{\HoLogo@XeTeX}}
349    {\lbthlpt@failure{XeTeX}{\HoLogo@XeTeX}}
350
351 %%% XeLaTeX: between Xe an LaTeX
352 \lbthlpt@save{XeLaTeX}
353 \patchcmd\HoLogo@XeLaTeX
354    {\kern-.13em}
355    {%
356      \lbthlpt@fonttest
357        {% biolinum
358          \lbthlpt@ifit
359            {%
360              \lbthlpt@ifxeorlua
361                {\lbthlpt@ifbf{}{\kern-0.025em}}
362                {\kern-0.15em}%
363            }
364            {\kern-0.09em}%
365        }
366        {% libertine
367          \lbthlpt@ifit
368            {%
369              \lbthlpt@ifxeorlua
370                {\lbthlpt@ifbf{\kern-0.09em}{\kern0.05em}}
371                {\kern-0.09em}%
372            }
373            {\kern-0.025em}%
374        }
```

```
375        {\kern-0.13em}%
376      }
377    {\lbthlpt@success{XeLaTeX}{\HoLogo@XeLaTeX}}
378    {\lbthlpt@failure{XeLaTeX}{\HoLogo@XeLaTeX}}
379
380  %%% LaTeXTeX
381  \lbthlpt@save{LaTeXTeX}
382  % between ( and La
383  \patchcmd\HoLogo@LaTeXTeX
384    {\kern-.15em}
385    {%
386      \lbthlpt@fonttest
387        {\lbthlpt@ifit{\kern-0.09em}{\kern-0.09em}}
388        {\lbthlpt@ifit{\kern-0.06em}{\kern-0.06em}}
389        {\kern-0.15em}%
390    }%
391    {\lbthlpt@success{(La)TeX}{\HoLogo@LaTeXTeX}}
392    {\lbthlpt@failure{(La)TeX}{\HoLogo@LaTeXTeX}}
393  % between La and )
394  \patchcmd\HoLogo@LaTeXTeX
395    {\kern-.2em}
396    {%
397      \lbthlpt@fonttest
398        {\lbthlpt@ifit{\kern-0.16em}{\kern-0.13em}}
399        {\lbthlpt@ifit{\kern-0.14em}{\kern-0.12em}}
400        {\kern-0.2em}%
401    }
402    {\lbthlpt@success{(La)TeX}{\HoLogo@LaTeXTeX}}
403    {\lbthlpt@failure{(La)TeX}{\HoLogo@LaTeXTeX}}
404  % between ) and TeX
405  \patchcmd\HoLogo@LaTeXTeX
406    {\kern-.15em}
407    {%
408      \lbthlpt@fonttest
409        {\lbthlpt@ifit{\kern-0.11em}{\kern-0.11em}}
410        {\lbthlpt@ifit{\kern-0.09em}{\kern-0.07em}}
411        {\kern-0.15em}%
412    }
413    {\lbthlpt@success{(La)TeX}{\HoLogo@LaTeXTeX}}
414    {\lbthlpt@failure{(La)TeX}{\HoLogo@LaTeXTeX}}
415
416  %%% (La)TeX
417  \lbthlpt@save{(La)TeX}
418  \cslet{HoLogo@(La)TeX}\HoLogo@LaTeXTeX
419
420  % ------------------------------------------------------------------------
421  % shortcuts (with pdf bookmark support via hyperref)
422  \ifbool{lbthlpt@shortcuts}
423    {
```

```latex
    \ifboolexpe{ bool {lbthlpt@verbose} or bool {lbthlpt@errors} }
      {\PackageInfo{libertinehologopatch}{Defining shortcuts}}{}
    \AtBeginDocument{
      \renewrobustcmd\TeX{\hologo{TeX}}
      \renewrobustcmd\LaTeX{\hologo{LaTeX}}
      \renewrobustcmd\LaTeXe{\hologo{LaTeX2e}}
      \ifdef\LaTeXTeX
        {\renewrobustcmd\LaTeXTeX{\hologo{LaTeXTeX}}}
        {\newrobustcmd\LaTeXTeX{\hologo{LaTeXTeX}}}
      \ifdef\pdfTeX
        {\renewrobustcmd\pdfTeX{\hologo{pdfTeX}}}
        {\newrobustcmd\pdfTeX{\hologo{pdfTeX}}}
      \ifdef\pdfLaTeX
        {\renewrobustcmd\pdfLaTeX{\hologo{pdfLaTeX}}}
        {\newrobustcmd\pdfLaTeX{\hologo{pdfLaTeX}}}
      \ifdef\XeTeX
        {\renewrobustcmd\XeTeX{\hologo{XeTeX}}}
        {\newrobustcmd\XeTeX{\hologo{XeTeX}}}
      \ifdef\XeLaTeX
        {\renewrobustcmd\XeLaTeX{\hologo{XeLaTeX}}}
        {\newrobustcmd\XeLaTeX{\hologo{XeLaTeX}}}
      \ifdef\LuaTeX
        {\renewrobustcmd\LuaTeX{\hologo{LuaTeX}}}
        {\newrobustcmd\LuaTeX{\hologo{LuaTeX}}}
      \ifdef\LuaLaTeX
        {\renewrobustcmd\LuaLaTeX{\hologo{LuaLaTeX}}}
        {\newrobustcmd\LuaLaTeX{\hologo{LuaLaTeX}}}
      \@ifpackageloaded{hyperref}
        {
          \pdfstringdefDisableCommands
            {
              \def\TeX{TeX}
              \def\LaTeX{LaTeX}
              \def\LaTeXe{LaTeX 2e}
              \def\LaTeXTeX{(La)TeX}
              \def\pdfTeX{pdfTeX}
              \def\pdfLaTeX{pdfLaTeX}
              \def\XeTeX{XeTeX}
              \def\XeLaTeX{XeLaTeX}
              \def\LuaTeX{LuaTeX}
              \def\LuaLaTeX{LuaLaTeX}
            }
        }{}
    }
  }{}

\endinput
% VERSION HISTORY
2013/01/?? v0.1  - first draft
```

```
473  2013/01/28 v0.2  - included package options, provided the necessary and
474                     previously missing default value if neither Libertine nor
475                     Biolinum are used
476  2013/01/30 v0.2a - adapted to changes in 'libertine' and added missing tests
477  2013/02/01 v0.2b - added documentation
478  2013/03/19 v0.2c - internal changes to the saving and restoring
479                   - new: \originallogo and \Originallogo
480  2013/03/22 v0.3  - added support for XeLaTeX and LuaLaTeX (with 'fontspec'!)
481
482
483  % TODO:
484  - \LuaTeX : Libertine sc : zu große Lücke zwischen Lua und TeX
```

# Index