

# The `soulutf8` package

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## Abstract

This package extends package `soul` and adds some support for UTF-8. Namely the input encodings `utf8.def` from package `inputenc` and package `ucs`'s `utf8x.def` are supported.

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\*Please report any issues at <https://github.com/ho-tex/oberdiek/issues>

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	[2007/09/09 v1.0] . . . . .	26
	[2016/05/16 v1.1] . . . . .	26

# 1 Documentation

This package `soulutf8` does not have own options and does not define new user commands. Any option is passed to package `soul` [1] that is loaded first. Then some internal macros of `soul` are redefined to add support for UTF-8. The following input encodings are supported:

```
utf8    LATEX base    TDS:tex/latex/base/utf8.def [3]
utf8x   Package ucs   TDS:tex/latex/ucs/utf8x.def [2]
```

UTF-8 byte sequences are added as token group to a word, even if these UTF-8 characters are some kind of hyphen or space. As exception the following three Unicode characters are handled specially:

Slot	Name	Action
U+00A0	NO-BREAK SPACE	like ~
U+2013	EN DASH	--
U+2014	EM DASH	---

## 1.1 Patch

Also package `soulutf8` tries to patch package `soul` to improve its behaviour:

- A problem with additional levels of curly braces is fixed. As advantage more implicate kernings are detected. However, the result may be incompatible with the original behaviour of package `soul` because of these respected implicate kernings.
- $\varepsilon$ -T<sub>E</sub>X, especially `\unexpanded` is supported. This allows a better protection of token groups (`\mbox{...}`, `math`, ...).

## 1.2 Future

Currently package `soul` does not seem to be maintained. Nevertheless if there will be a new version that adds support for UTF-8, then this package may become obsolete.

# 2 Implementation

```
1 <*package>
```

## 2.1 Reload check and package identification

Reload check, especially if the package is not used with L<sup>A</sup>T<sub>E</sub>X.

```
2 \begingroup\catcode61\catcode48\catcode32=10\relax%
3 \catcode13=5 % ^M
4 \endlinechar=13 %
5 \catcode35=6 % #
6 \catcode39=12 % '

```

```

7 \catcode44=12 % ,
8 \catcode45=12 % -
9 \catcode46=12 % .
10 \catcode58=12 % :
11 \catcode64=11 % @
12 \catcode123=1 % {
13 \catcode125=2 % }
14 \expandafter\let\expandafter\x\csname ver@soulutf8.sty\endcsname
15 \ifx\x\relax % plain-Tex, first loading
16 \else
17 \def\empty{}%
18 \ifx\x\empty % LaTeX, first loading,
19 % variable is initialized, but \ProvidesPackage not yet seen
20 \else
21 \expandafter\ifx\csname PackageInfo\endcsname\relax
22 \def\x#1#2{%
23 \immediate\write-1{Package #1 Info: #2.}%
24 }%
25 \else
26 \def\x#1#2{\PackageInfo{#1}{#2, stopped}}%
27 \fi
28 \x{soulutf8}{The package is already loaded}%
29 \aftergroup\endinput
30 \fi
31 \fi
32 \endgroup%

```

Package identification:

```

33 \begingroup\catcode61\catcode48\catcode32=10\relax%
34 \catcode13=5 % ^~M
35 \endlinechar=13 %
36 \catcode35=6 % #
37 \catcode39=12 % '
38 \catcode40=12 % (
39 \catcode41=12 % )
40 \catcode44=12 % ,
41 \catcode45=12 % -
42 \catcode46=12 % .
43 \catcode47=12 % /
44 \catcode58=12 % :
45 \catcode64=11 % @
46 \catcode91=12 % [
47 \catcode93=12 % ]
48 \catcode123=1 % {
49 \catcode125=2 % }
50 \expandafter\ifx\csname ProvidesPackage\endcsname\relax
51 \def\x#1#2#3[#4]{\endgroup
52 \immediate\write-1{Package: #3 #4}%
53 \xdef#1{#4}%
54 }%
55 \else
56 \def\x#1#2[#3]{\endgroup
57 #2[#3]}%
58 \ifx#1\@undefined
59 \xdef#1{#3}%
60 \fi
61 \ifx#1\relax
62 \xdef#1{#3}%
63 \fi

```

```

64     }%
65     \fi
66 \expandafter\x\csname ver@soulutf8.sty\endcsname
67 \ProvidesPackage{soulutf8}%
68 [2016/05/16 v1.1 Permit use of UTF-8 characters in soul (H0)]%

```

## 2.2 Catcodes

```

69 \begingroup\catcode61\catcode48\catcode32=10\relax%
70 \catcode13=5 % ^^M
71 \endlinechar=13 %
72 \catcode123=1 % {
73 \catcode125=2 % }
74 \catcode64=11 % @
75 \def\x{\endgroup
76   \expandafter\edef\csname SOuL@AtEnd\endcsname{%
77     \endlinechar=\the\endlinechar\relax
78     \catcode13=\the\catcode13\relax
79     \catcode32=\the\catcode32\relax
80     \catcode35=\the\catcode35\relax
81     \catcode61=\the\catcode61\relax
82     \catcode64=\the\catcode64\relax
83     \catcode123=\the\catcode123\relax
84     \catcode125=\the\catcode125\relax
85   }%
86   }%
87 \x\catcode61\catcode48\catcode32=10\relax%
88 \catcode13=5 % ^^M
89 \endlinechar=13 %
90 \catcode35=6 % #
91 \catcode64=11 % @
92 \catcode123=1 % {
93 \catcode125=2 % }
94 \def\TMP@EnsureCode#1#2{%
95   \edef\SOuL@AtEnd{%
96     \SOuL@AtEnd
97     \catcode#1=\the\catcode#1\relax
98   }%
99   \catcode#1=#2\relax
100 }
101 \TMP@EnsureCode{10}{12}% ^^J
102 \TMP@EnsureCode{33}{12}% !
103 \TMP@EnsureCode{34}{12}% "
104 \TMP@EnsureCode{36}{3}% $
105 \TMP@EnsureCode{39}{12}% '
106 \TMP@EnsureCode{40}{12}% (
107 \TMP@EnsureCode{41}{12}% )
108 \TMP@EnsureCode{42}{12}% *
109 \TMP@EnsureCode{43}{12}% +
110 \TMP@EnsureCode{44}{12}% ,
111 \TMP@EnsureCode{45}{12}% -
112 \TMP@EnsureCode{46}{12}% .
113 \TMP@EnsureCode{47}{12}% /
114 \TMP@EnsureCode{58}{12}% :
115 \TMP@EnsureCode{60}{12}% <
116 \TMP@EnsureCode{62}{12}% >
117 \TMP@EnsureCode{91}{12}% [
118 \TMP@EnsureCode{93}{12}% ]

```

```

119 \TMP@EnsureCode{94}{7}% ^
120 \TMP@EnsureCode{96}{12}% ^
121 \TMP@EnsureCode{126}\active % ~
122 \TMP@EnsureCode{128}{12}% ^^80
123 \TMP@EnsureCode{147}{12}% ^^93
124 \TMP@EnsureCode{148}{12}% ^^94
125 \TMP@EnsureCode{160}{12}% ^^a0
126 \TMP@EnsureCode{194}{12}% ^^c2
127 \TMP@EnsureCode{226}{12}% ^^e2
128 \edef\Soul@AtEnd{\Soul@AtEnd\noexpand\endinput}

```

## 2.3 Loading packages

Package soul uses `\documentclass` to detect L<sup>A</sup>T<sub>E</sub>X.

```

129 \ifx\documentclass\undefined

```

### 2.3.1 plain T<sub>E</sub>X

First we check, whether package soul is already loaded.

```

130 \expandafter\ifx\csname SOUL@\endcsname\relax

```

In case of plain T<sub>E</sub>X package soul defines some macros in a simple manner that will break the definitions of `miniltx.tex`, for example. Therefore these macros are first saved and restored afterwards.

```

131 \let\Soul@orgDeclareRobustCommand\DeclareRobustCommand
132 \let\Soul@orgnewcommand\newcommand
133 \let\Soul@orgDeclareOption\DeclareOption
134 \let\Soul@orgPackageError\PackageError
135 \def\Soul@restorelatexcmds{%
136 \let\DeclareRobustCommand\Soul@orgDeclareRobustCommand
137 \let\newcommand\Soul@orgnewcommand
138 \let\DeclareOption\Soul@orgDeclareOption
139 \let\PackageError\Soul@orgPackageError
140 }%
141 \input soul.sty\relax
142 \Soul@restorelatexcmds
143 \fi

```

`\SOUL@error` Package soul's use of `\PackageError` is replaced by `\@PackageError` of package `infwarerr`.

```

144 \input infwarerr.sty\relax
145 \let\Soul@orgSOUL@error\SOUL@error
146 \def\SOUL@error{%
147 \begingroup
148 \let\PackageError\@PackageError
149 \Soul@orgSOUL@error
150 \endgroup
151 }%

152 \input etexcmds.sty\relax

```

`\@onelevel@sanitize` Define L<sup>A</sup>T<sub>E</sub>X's `\@onelevel@sanitize` if not already available.

```

153 \expandafter\ifx\csname @onelevel@sanitize\endcsname\relax
154 \def\@onelevel@sanitize#1{%
155 \edef#1{%
156 \expandafter\strip@prefix\meaning#1%
157 }%
158 }%

```

`\strip@prefix`

```
159 \def\strip@prefix#1>{}%
160 \fi
161 \else
```

### 2.3.2 L<sup>A</sup>T<sub>E</sub>X

```
162 \DeclareOption*{\PassOptionsToPackage{\CurrentOption}{soul}}%
163 \ProcessOptions\relax
164 \RequirePackage{soul}[2003/11/17]%
165 \RequirePackage{infwarerr}[2016/05/16]%
166 \RequirePackage{etexcmds}[2016/05/16]%
167 \fi
```

### 2.3.3 $\epsilon$ -T<sub>E</sub>X

In plain T<sub>E</sub>X command `\+` is an *outer* macro. Therefore numbers are used to avoid problems.

```
168 \ifetex@unexpanded
169 \catcode33=14 % '!': comment
170 \catcode43=9 % '+': ignore
171 \else
172 \catcode33=9 % '!': ignore
173 \catcode43=14 % '+': comment
174 \fi
```

## 2.4 Macro for redefinitions

`\SOuL@redefine`

```
175 \def\SOuL@redefine#1{%
176 \begingroup
177 \def\SOuL@cmd{#1}%
178 \afterassignment\SOuL@cmdcheck
179 \def\SOuL@temp
180 }
```

`\SOuL@cmdcheck`

```
181 \def\SOuL@cmdcheck{%
182 \expandafter\ifx\SOuL@cmd\SOuL@temp
183 \else
184 \edef\SOuL@temp*{\expandafter\string\SOuL@cmd}%
185 \@PackageWarningNoLine{soulutf8}{%
186 Command \SOuL@temp* has changed.\MessageBreak
187 Supported versions of package `soul': 2003/11/17.\MessageBreak
188 Depending on the unknown changes the redefinition\MessageBreak
189 of \SOuL@temp* may not behave correctly%
190 }%
191 \fi
192 \expandafter\endgroup
193 \expandafter\def\SOuL@cmd
194 }
```

## 2.5 Redefinition of `\SOUL@eval`

`\SOUL@eval` Macro `\SOUL@eval` is redefined to add detection of the first byte of a UTF-8 sequence. Because `\SOUL@eval` is overwritten, a warning is issued, if the contents of `\SOUL@eval` is not as expected.

195 \SOUL@redefine\SOUL@eval{%

First the expected definition.

```

196 \def\SOUL@n*##1{\SOUL@scan}%
197 \if\noexpand\SOUL@@\SOUL@spc
198 \else
199   \SOUL@ignorespacesfalse
200 \fi
201 \ifnum\SOUL@minus=\thr@@
202   \SOUL@flushminus
203 \else\ifnum\SOUL@comma=\tw@
204   \SOUL@flushcomma
205 \else\ifnum\SOUL@apo=\tw@
206   \SOUL@flushapo
207 \else\ifnum\SOUL@grave=\tw@
208   \SOUL@flushgrave
209 \fi\fi\fi\fi
210 \ifx\SOUL@@-\else\SOUL@flushminus\fi
211 \ifx\SOUL@,@\else\SOUL@flushcomma\fi
212 \ifx\SOUL@@'\else\SOUL@flushapo\fi
213 \ifx\SOUL@@`\else\SOUL@flushgrave\fi
214 \ifx\SOUL@@-%
215   \advance\SOUL@minus\@ne
216 \else\ifx\SOUL@@,%
217   \advance\SOUL@comma\@ne
218 \else\ifx\SOUL@@'%
219   \advance\SOUL@apo\@ne
220 \else\ifx\SOUL@@`%
221   \advance\SOUL@grave\@ne
222 \else
223   \SOUL@flushminus
224   \SOUL@flushcomma
225   \SOUL@flushapo
226   \SOUL@flushgrave
227   \ifx\SOUL@@\SOUL@stop
228     \def\SOUL@n*{%
229       \SOUL@doword
230       \SOUL@eventuallyexhyphen\null
231     }%
232 \else\ifx\SOUL@@\par
233   \def\SOUL@n*\par{\par\leavevmode\SOUL@scan}%
234 \else\if\noexpand\SOUL@@\SOUL@spc
235   \SOUL@doword
236   \SOUL@eventuallyexhyphen\null
237   \ifSOUL@ignorespaces
238   \else
239     \SOUL@everySPACE{}%
240   \fi
241   \def\SOUL@n* {\SOUL@scan}%
242 \else\ifx\SOUL@@\%
243   \SOUL@doword
244   \SOUL@eventuallyexhyphen\null
245   \SOUL@everySPACE{\unskip\nobreak\hfil\break}%
246   \SOUL@ignorespacestrue
247 \else\ifx\SOUL@@~%
248   \SOUL@doword
249   \SOUL@eventuallyexhyphen\null
250   \SOUL@everySPACE{\nobreak}%
251 \else\ifx\SOUL@@\slash

```

[illegible]

```

281 \def\SOUL@n##1{\SOUL@scan}%
282 \if\noexpand\SOUL@@\SOUL@spc
283 \else
284 \SOUL@ignorespacesfalse
285 \fi
286 \ifnum\SOUL@minus=\thr@@
287 \SOUL@flushminus
288 \else\ifnum\SOUL@comma=\tw@
289 \SOUL@flushcomma
290 \else\ifnum\SOUL@apo=\tw@
291 \SOUL@flushapo
292 \else\ifnum\SOUL@grave=\tw@
293 \SOUL@flushgrave
294 \fi\fi\fi\fi
295 \ifx\SOUL@@-\else\SOUL@flushminus\fi
296 \ifx\SOUL@, \else\SOUL@flushcomma\fi
297 \ifx\SOUL@@'\else\SOUL@flushapo\fi
298 \ifx\SOUL@@`\else\SOUL@flushgrave\fi
299 \ifx\SOUL@@-%
300 \advance\SOUL@minus@ne
301 \else\ifx\SOUL@, %
302 \advance\SOUL@comma@ne
303 \else\ifx\SOUL@@' %
304 \advance\SOUL@apo@ne
305 \else\ifx\SOUL@@` %
306 \advance\SOUL@grave@ne
307 \else
308 \SOUL@flushminus

```



```

309 \SOUL@flushcomma
310 \SOUL@flushapo
311 \SOUL@flushgrave
312 \ifx\SOUL@@\SOUL@stop
313   \def\SOUL@n*{%
314     \SOUL@doword
315     \SOUL@eventuallyexhyphen\null
316   }%
317 \else\ifx\SOUL@@\par
318   \def\SOUL@n*\par{\par\leavevmode\SOUL@scan}%
319 \else\if\noexpand\SOUL@@\SOUL@spc
320   \SOUL@doword
321   \SOUL@eventuallyexhyphen\null
322   \ifSOUL@ignorespaces
323   \else
324     \SOUL@everySPACE{%
325   \fi
326   \def\SOUL@n* {\SOUL@scan}%
327 \else\ifx\SOUL@@\%
328   \SOUL@doword
329   \SOUL@eventuallyexhyphen\null
330   \SOUL@everySPACE{\unskip\nobreak\hfil\break}%
331   \SOUL@ignorespacestrue
332 \else\ifx\SOUL@@~%
333   \SOUL@doword
334   \SOUL@eventuallyexhyphen\null
335   \SOUL@everySPACE{\nobreak}%
336 \else\ifx\SOUL@@\slash
337   \SOUL@doword
338   \SOUL@eventuallyexhyphen{/}%
339   \SOUL@exhyphen{/}%
340 \else\ifx\SOUL@@\mbox
341   \def\SOUL@n*{\SOUL@addprotect}%
342 \else\ifx\SOUL@@\hbox
343   \def\SOUL@n*{\SOUL@addprotect}%
344 \else\ifx\SOUL@@\soulomit
345   \def\SOUL@n*\soulomit##1{%
346     \SOUL@doword
347     {\spaceskip\SOUL@spaceskip##1}%
348     \SOUL@scan
349   }%
350 \else\ifx\SOUL@@\break
351   \SOUL@doword
352   \break
353 \else\ifx\SOUL@@\linebreak
354   \SOUL@doword
355   \SOUL@everySPACE{\linebreak}%
356 \else\ifcat\bgroup\noexpand\SOUL@@
357   \def\SOUL@n*{\SOUL@addgroup{}}%
358 \else\ifcat$\noexpand\SOUL@@
359   \def\SOUL@n*{\SOUL@addmath}%
360 \else

```

The current token is examined to detect the start of a UTF-8 sequence.

```

361 \SOuL@analyzeutfviii
362 \ifcase\SOuL@octets
363   \SOuL@analyzeutfviiiix
364 \fi
365 \ifcase\SOuL@octets

```



```

416     \else\ifx\SouL@temp\SouL@stringfour
417         4 %
418     \else
419         \z@
420     \fi\fi\fi
421 }

```

### 2.6.3 Support for utf8x.def

\SouL@analyzeutfviiiix

```

422 \begingroup
423 \edef\x{\endgroup
424     \def\noexpand\SouL@analyzeutfviiiix{%
425         \noexpand\expandafter\noexpand\SouL@checkutfviiiix
426         \noexpand\meaning\noexpand\SouL@@
427         \SouL@stringmacrocolon\SouL@charhash1{}{}{}{}%
428         \SouL@stringcsnameu\SouL@stringundeferr
429         \noexpand\@nil
430     }%

```

\SouL@checkutfviiiix

```

431     \def\noexpand\SouL@checkutfviiiix
432         ##1\SouL@stringmacrocolon\SouL@charhash1##2##3##4##5##6%
433         \SouL@stringcsnameu##7\SouL@stringundeferr##8\noexpand\@nil
434     }%
435 \x{%
436     \def\SouL@temp{#7}%
437     \ifx\SouL@temp\SouL@empty
438         \chardef\SouL@octets=\z@
439     \else
440         \def\SouL@temp{#5}%
441         \ifx\SouL@temp\SouL@charthree
442             \chardef\SouL@octets=4 %
443         \else
444             \def\SouL@temp{#3}%
445             \ifx\SouL@temp\SouL@chartwo
446                 \chardef\SouL@octets=\thr@@
447             \else
448                 \chardef\SouL@octets=\tw@
449             \fi
450         \fi
451     \fi
452 }

```

## 2.7 Actions for UTF-8 sequences

\SouL@addtwooctets

```

453 \def\SouL@addtwooctets#1#2{%
454     \def\SouL@temp{#1#2}%
455     \@onelevel@sanitize\SouL@temp
456     \ifx\SouL@temp\SouL@stringnobreakspace
457         \SouL@doword
458         \SouL@eventuallyexhyphen\null
459         \SouL@everySPACE{\nobreak}%
460         \let\SouL@next\SouL@scan
461     \else
462         \def\SouL@next{%

```

```

463 !      \SOUL@addtoken{{\noexpand#1\noexpand#2}}%
464 +      \SOUL@addtoken{{\etex@unexpanded{#1#2}}}%
465      }%
466 \fi
467 \SOuL@next
468 }

```

\SOuL@addthreeoctets

```

469 \def\SOuL@addthreeoctets#1#2#3{%
470   \def\SOuL@temp{#1#2#3}%
471   \@onelevel@sanitize\SOuL@temp
472   \ifx\SOuL@temp\SOuL@stringendash
473     \SOUL@doword
474     \SOUL@eventuallyexhyphen{-}%
475     \SOUL@exhyphen{--}%
476     \let\SOuL@next\SOUL@scan
477   \else
478     \ifx\SOuL@temp\SOuL@stringemdash
479       \SOUL@doword
480       \SOUL@eventuallyexhyphen{-}%
481       \SOUL@exhyphen{--}%
482       \let\SOuL@next\SOUL@scan
483     \else
484       \def\SOuL@next{%
485         \SOUL@addtoken{{\noexpand#1\noexpand#2\noexpand#3}}%
486         \SOUL@addtoken{{\etex@unexpanded{#1#2#3}}}%
487       }%
488     \fi
489   \fi
490   \SOuL@next
491 }

```

\SOuL@addfouroctets

```

492 \def\SOuL@addfouroctets#1#2#3#4{%
493 !   \SOUL@addtoken{{\noexpand#1\noexpand#2\noexpand#3\noexpand#4}}%
494 +   \SOUL@addtoken{{\etex@unexpanded{#1#2#3#4}}}%
495 }

```

### 2.7.1 Redefinition of \SOUL@splittoken

**\SOUL@splittoken** Macro \SOUL@splittoken separates the first token or token group from a word and redefines the word to contain the remaining tokens. However if the remaining tokens are a token group, then the curly braces will be removed and the token group is splitted by the next call of \SOUL@splittoken. The redefinition avoids the removal of curly braces around the remaining tokens.

```

496 \SOuL@redefine\SOUL@splittoken#1#2\SOUL@stop{%
497   \global\SOUL@token={#1}%
498   \global\SOUL@word={#2}%
499 }#1{%
500   \global\SOUL@token={#1}%
501   \SOuL@remainingtoken\relax
502 }

```

\SOuL@remainingtoken

```

503 \def\SOuL@remainingtoken#1\SOUL@stop{%
504   \global\SOUL@word=\expandafter{\@gobble#1}%
505 }

```

## 2.8 Patches

The fixed `\SOUL@splittoken` allows to remove the double sets of curly braces in other macros of package `soul`. The benefit is that implicate kernings are more often detected and fixes a bug in package `soul`. The disadvantage is incompatibility. The width of the resulting strings may change.

`\SOUL@flushcomma`

```
506 \SOUL@redefine\SOUL@flushcomma{%
507   \ifcase\SOUL@comma
508   \or
509     \edef\x{\SOUL@word={\the\SOUL@word,}}\x
510   \or
511     \edef\x{\SOUL@word={\the\SOUL@word{,,}}}\x
512   \fi
513   \SOUL@comma\z@
514 }{%
515   \ifcase\SOUL@comma
516   \or
517     \edef\x{\SOUL@word={\the\SOUL@word,}}\x
518   \or
519     \edef\x{\SOUL@word={\the\SOUL@word{,,}}}\x
520   \fi
521   \SOUL@comma\z@
522 }
```

`\SOUL@flushapo`

```
523 \SOUL@redefine\SOUL@flushapo{%
524   \ifcase\SOUL@apo
525   \or
526     \edef\x{\SOUL@word={\the\SOUL@word'}}\x
527   \or
528     \edef\x{\SOUL@word={\the\SOUL@word{' '}}}\x
529   \fi
530   \SOUL@apo\z@
531 }{%
532   \ifcase\SOUL@apo
533   \or
534     \edef\x{\SOUL@word={\the\SOUL@word'}}\x
535   \or
536     \edef\x{\SOUL@word={\the\SOUL@word{' '}}}\x
537   \fi
538   \SOUL@apo\z@
539 }
```

`\SOUL@flushgrave`

```
540 \SOUL@redefine\SOUL@flushgrave{%
541   \ifcase\SOUL@grave
542   \or
543     \edef\x{\SOUL@word={\the\SOUL@word`}}\x
544   \or
545     \edef\x{\SOUL@word={\the\SOUL@word{``}}}\x
546   \fi
547   \SOUL@grave\z@
548 }{%
549   \ifcase\SOUL@grave
550   \or
551     \edef\x{\SOUL@word={\the\SOUL@word`}}\x
```

```

552 \or
553 \edef\x{\SOUL@word={\the\SOUL@word{``}}}\x
554 \fi
555 \SOUL@grave\z@
556 }

\SOUL@addgroup

557 \SOUL@redefine\SOUL@addgroup#1#2{%
558 {%
559 \let\protect\noexpand
560 \edef\x{%
561 \global\SOUL@word={%
562 \the\SOUL@word
563 {\noexpand#1#2}}%
564 }%
565 }%
566 \x
567 }%
568 \SOUL@scan
569 }#1#2{%
570 \begingroup
571 \let\protect\noexpand
572 \edef\x{\endgroup
573 \SOUL@word={%
574 \the\SOUL@word
575 ! {\noexpand#1{#2}}%
576 + {\etex@unexpanded{#1{#2}}}%
577 }%
578 }%
579 \x
580 \SOUL@scan
581 }

\SOUL@addmath

582 \SOUL@redefine\SOUL@addmath$#1${%
583 {%
584 \let\protect\noexpand
585 \edef\x{%
586 \global\SOUL@word={%
587 \the\SOUL@word
588 {\hbox{ $#1$ }}%
589 }%
590 }%
591 \x
592 }%
593 \SOUL@scan
594 }$#1${%
595 \begingroup
596 \let\protect\noexpand
597 \edef\x{\endgroup
598 \SOUL@word={%
599 \the\SOUL@word
600 ! {\hbox{ $#1$ }}%
601 + {\etex@unexpanded{\hbox{ $#1$ }}}%
602 }%
603 }%
604 \x
605 \SOUL@scan

```

606 }

\SOUL@addprotect

```
607 \SOUL@redefine\SOUL@addprotect#1#2{%
608   {%
609     \let\protect\noexpand
610     \edef\x{%
611       \global\SOUL@word={%
612         \the\SOUL@word
613         {\hbox{#2}}}%
614     }%
615   }%
616   \x
617 }%
618 \SOUL@scan
619 }#1#2{%
620   \begingroup
621     \let\protect\noexpand
622     \edef\x{\endgroup
623       \SOUL@word={%
624         \the\SOUL@word
625         {\hbox{#2}}}%
626     +   {\etex@unexpanded{\hbox{#2}}}%
627     }%
628   }%
629   \x
630   \SOUL@scan
631 }
```

\SOUL@addtoken

```
632 + \SOUL@redefine\SOUL@addtoken#1{%
633 +   \edef\x{%
634 +     \SOUL@word={%
635 +       \the\SOUL@word
636 +       \noexpand#1%
637 +     }%
638 +   }%
639 +   \x
640 +   \SOUL@scan
641 + }#1{%
642 +   \edef\x{%
643 +     \SOUL@word={%
644 +       \the\SOUL@word
645 +       \etex@unexpanded{#1}%
646 +     }%
647 +   }%
648 +   \x
649 +   \SOUL@scan
650 + }%

651 \SOUL@AtEnd%
652 </package>
```

### 3 Test

#### 3.1 Catcode checks for loading

```

653 (*test1)
654 \catcode`\{=1 %
655 \catcode`\}=2 %
656 \catcode`\#=6 %
657 \catcode`\@=11 %
658 \expandafter\ifx\csname count@\endcsname\relax
659   \countdef\count@=255 %
660 \fi
661 \expandafter\ifx\csname @gobble\endcsname\relax
662   \long\def@gobble#1{}%
663 \fi
664 \expandafter\ifx\csname @firstofone\endcsname\relax
665   \long\def@firstofone#1{#1}%
666 \fi
667 \expandafter\ifx\csname loop\endcsname\relax
668   \expandafter\@firstofone
669 \else
670   \expandafter@gobble
671 \fi
672 {%
673   \def\loop#1\repeat{%
674     \def\body{#1}%
675     \iterate
676   }%
677   \def\iterate{%
678     \body
679     \let\next\iterate
680   \else
681     \let\next\relax
682   \fi
683   \next
684 }%
685 \let\repeat=\fi
686 }%
687 \def\RestoreCatcodes{}
688 \count@=0 %
689 \loop
690   \edef\RestoreCatcodes{%
691     \RestoreCatcodes
692     \catcode\the\count@=\the\catcode\count@\relax
693   }%
694 \ifnum\count@<255 %
695   \advance\count@ 1 %
696 \repeat
697
698 \def\RangeCatcodeInvalid#1#2{%
699   \count@=#1\relax
700   \loop
701     \catcode\count@=15 %
702   \ifnum\count@<#2\relax
703     \advance\count@ 1 %
704   \repeat
705 }
706 \def\RangeCatcodeCheck#1#2#3{%
707   \count@=#1\relax
708   \loop
709     \ifnum#3=\catcode\count@
710   \else

```



```

711     \errmessage{%
712         Character \the\count@\space
713         with wrong catcode \the\catcode\count@\space
714         instead of \number#3%
715     }%
716     \fi
717     \ifnum\count@<#2\relax
718         \advance\count@ 1 %
719     \repeat
720 }
721 \def\space{ }
722 \expandafter\ifx\csname LoadCommand\endcsname\relax
723     \def\LoadCommand{\input soulutf8.sty\relax}%
724 \fi
725 \def\Test{%
726     \RangeCatcodeInvalid{0}{47}%
727     \RangeCatcodeInvalid{58}{64}%
728     \RangeCatcodeInvalid{91}{96}%
729     \RangeCatcodeInvalid{123}{255}%
730     \catcode`\@=12 %
731     \catcode`\=0 %
732     \catcode`\%=14 %
733     \LoadCommand
734     \RangeCatcodeCheck{0}{36}{15}%
735     \RangeCatcodeCheck{37}{37}{14}%
736     \RangeCatcodeCheck{38}{47}{15}%
737     \RangeCatcodeCheck{48}{57}{12}%
738     \RangeCatcodeCheck{58}{63}{15}%
739     \RangeCatcodeCheck{64}{64}{12}%
740     \RangeCatcodeCheck{65}{90}{11}%
741     \RangeCatcodeCheck{91}{91}{15}%
742     \RangeCatcodeCheck{92}{92}{0}%
743     \RangeCatcodeCheck{93}{96}{15}%
744     \RangeCatcodeCheck{97}{122}{11}%
745     \RangeCatcodeCheck{123}{255}{15}%
746     \RestoreCatcodes
747 }
748 \Test
749 \csname @@end\endcsname
750 \end
751 \test1)

```

### 3.2 L<sup>A</sup>T<sub>E</sub>X tests

```

752 (*test2 j test3 j test4 j test5)
753 <noetex>\let\SavedUnexpanded\unexpanded
754 <noetex>\let\unexpanded\UNDEFINED
755 \NeedsTeXFormat{LaTeX2e}
756 \documentclass{article}
757 \usepackage[T1]{fontenc}
758 \usepackage{lmodern}
759 \usepackage{textcomp}
760 \usepackage[ngerman]{babel}
761 \expandafter\def\csname ver@hypdestopt.sty\endcsname{}
762 \usepackage[unicode]{hyperref}
763 \usepackage{bookmark}
764 \usepackage{color}
765 \usepackage{soul}[2003/11/17]

```

```

766 \makeatletter
767 \newcommand*{\@ifDefined}[1]{%
768   \@ifundefined{#1}{%
769     \@latex@error{%
770       \expandafter\noexpand\csname#1\endcsname undefined%
771     }\@ehc
772   }%
773 }
774 \newcommand*{\SaveOrg}[1]{%
775   \@ifdefinable{ORG@SOUL@#1}{%
776     \@ifDefined{SOUL@#1}{%
777       \expandafter\let\csname ORG@SOUL@#1\expandafter\endcsname
778         \csname SOUL@#1\endcsname
779     }%
780   }%
781 }
782 \newcommand*{\RestoreOrg}[1]{%
783   \@ifDefined{ORG@SOUL@#1}{%
784     \@ifDefined{SOUL@#1}{%
785       \expandafter\let\csname SOUL@#1\expandafter\endcsname
786         \csname ORG@SOUL@#1\endcsname
787     }%
788   }%
789 }
790 \makeatother
791 \SaveOrg{eval}
792 \SaveOrg{splittoken}
793 \SaveOrg{flushcomma}
794 \SaveOrg{flushapo}
795 \SaveOrg{grave}
796 \SaveOrg{addgroup}
797 \SaveOrg{addmath}
798 \SaveOrg{addprotect}
799 \SaveOrg{addtoken}
800 \usepackage{soulutf8}[2016/05/16]
801 \let\unexpanded\SavedUnexpanded

```

Input encoding utf8.

```

802 (*utf8)
803 \usepackage[utf8]{inputenc}
804 \DeclareUnicodeCharacter{00A0}{\nobreakspace}
805 /utf8

```

Input encoding utf8x. Package ucs has a nasty bug, that it redefines \show.

```

806 (*utf8x)
807 \let\origshow\show
808 \usepackage[utf8x]{inputenc}
809 \AtBeginDocument{%
810   \let\show\origshow
811 }
812 /utf8x

```

### 3.2.1 Driver definitions

```

813 \makeatletter

```

\an The definition for \an is taken from the documentation of package soul.

```

814 \DeclareRobustCommand*{\an}{%
815   \def\SOUL@preamble{$~{~P}$}%
816   \def\SOUL@everySPACE##1{##1\texttt{\char`\ }\\linebreak[2]}}%

```

```

817 \def\SOUL@postamble{$^{~E}$}%
818 \def\SOUL@everyhyphen{$^{~-}$\linebreak[1]}%
819 \def\SOUL@everyexhyphen##1{##1$^{~=}$}%
820 \def\SOUL@everysyllable{$^{~S}$}%
821 \def\SOUL@everytoken{\the\SOUL@token$^{~T}$}%
822 \def\SOUL@everylowerthan{$^{~L}$}%
823 \SOUL@
824 }

```

\sy The definition for \sy is taken from the documentation of package soul.

```

825 \DeclareRobustCommand*\sy{%
826   \SOUL@setup
827   \def\SOUL@preamble{%
828     \lefthyphenmin=\z@
829     \righthyphenmin=\z@
830   }%
831   \def\SOUL@everyspace##1{##1\space}%
832   \def\SOUL@everysyllable{\the\SOUL@syllable}%
833   \def\SOUL@everyhyphen{%
834     \discretionary{%
835       \SOUL@setkern\SOUL@hyphkern
836       \SOUL@sethyphenchar
837     }{}{%
838       \hbox{\kern1pt$\cdot$}%
839     }%
840   }%
841   \def\SOUL@everyexhyphen##1{%
842     \SOUL@setkern\SOUL@hyphkern
843     \hbox{##1}%
844     \discretionary{}{}{%
845       \SOUL@setkern\SOUL@charkern
846     }%
847   }%
848   \SOUL@
849 }

```

\soulH

```

850 \DeclareRobustCommand*\soulH{%
851   \def\SOUL@preamble{%
852     \gdef\SOULH{%
853       \soulHadd{ }%
854     }%
855     \def\SOUL@everyspace##1{%
856       \soulHadd{Sp}%
857     }%
858     \def\SOUL@postamble{%
859       \soulHadd{ }%
860     }%
861     \def\SOUL@everyhyphen{%
862       \soulHadd{Hy}%
863     }%
864     \def\SOUL@everyexhyphen##1{%
865       \soulHadd{Exhy}%
866     }%
867     \def\SOUL@everysyllable{%
868       \soulHadd{Sy}%
869     }%
870     \def\SOUL@everytoken{%

```

```

871 \soulHadd{T}%
872 }%
873 \def\SOUL@everylowerthan{%
874 \soulHadd{<}%
875 }%
876 \SOUL@
877 }
878 \newcommand*{\soulHadd}[1]{%
879 #1%
880 \expandafter\gdef\expandafter\soulHstring\expandafter{%
881 \soulHstring
882 #1%
883 }%
884 }

```

### 3.2.2 Test macros

```

885 \usepackage{qstest}
886 \IncludeTests{*}
887 \LogTests{log}{*}{*}

888 \newsavebox\boxA
889 \newsavebox\boxB
890 \newsavebox\boxC

\TestDriver

891 \newcommand*{\TestDriver}[4]{%
892 \subsection{Driver #1}%
893 \@PackageInfo{soulutf8-test}{* Driver #1}%
894 \expandafter\let\expandafter\testdriver\csname #1\endcsname
895 \def\teststringA{#3}%
896 \def\teststringB{#4}%
897 \begin{qstest}{string-#2-driver-#1}{string,#2,driver,#1}%
898 \@PackageInfo{soulutf8-test}{* Version: soulutf8}%
899 \global\let\soulHstring\@empty
900 \setbox0=\hbox{\expandafter\testdriver\expandafter{\teststringA}}%
901 \let\HstringA\soulHstring
902 \SetTestVBox{\boxA}{\teststringA}%
903 %
904 \@PackageInfo{soulutf8-test}{* Version: soul + patch}%
905 \global\let\soulHstring\@empty
906 \RestoreOrg{eval}%
907 \setbox2=\hbox{\expandafter\testdriver\expandafter{\teststringB}}%
908 \let\HstringB\soulHstring
909 \SetTestVBox{\boxB}{\teststringB}%
910 %
911 \@PackageInfo{soulutf8-test}{* Version: original soul}%
912 \global\let\soulHstring\@empty
913 \RestoreOrg{splittoken}%
914 \RestoreOrg{flushcomma}%
915 \RestoreOrg{flushapo}%
916 \RestoreOrg{grave}%
917 \RestoreOrg{addgroup}%
918 \RestoreOrg{addmath}%
919 \RestoreOrg{addprotect}%
920 \RestoreOrg{addtoken}%
921 \setbox4=\hbox{\expandafter\testdriver\expandafter{\teststringB}}%
922 \let\HstringC\soulHstring
923 \SetTestVBox{\boxC}{\teststringB}%

```

```

924 %
925 \TestInfo{0}{soulutf8}%
926 \TestInfo{2}{soul + patch}%
927 \TestInfo{4}{original soul}%
928 \TestInfoVBox
929 \showboxdepth=\maxdimen
930 \showboxbreadth=\maxdimen
931 \tracingonline=\@ne
932 \Expect*{\HstringA}*{\HstringB}%
933 \Expect*{\HstringA}*{\HstringC}%
934 \Expect*{\the\wd0}*{\the\wd2}%
935 \ifdim\wd0=\wd2 %
936 \else
937 \showbox0 %
938 \showbox2 %
939 \fi
940 \Expect*{\the\ht0}*{\the\ht2}%
941 \Expect*{\the\dp0}*{\the\dp2}%
942 \Expect*{\the\wd\boxB}*{\the\wd\boxA}%
943 \Expect*{\the\wd\boxC}*{\the\wd\boxA}%
944 \Expect*{\the\ht\boxB}*{\the\ht\boxA}%
945 \ifdim\ht\boxB=\ht\boxA
946 \else
947 \showbox\boxA
948 \showbox\boxB
949 \fi
950 \Expect*{\the\ht\boxC}*{\the\ht\boxA}%
951 \Expect*{\the\dp\boxB}*{\the\dp\boxA}%
952 \Expect*{\the\dp\boxC}*{\the\dp\boxA}%
953 \end{qstest}%
954 }

```

\SetTestVBox

```

955 \newcommand*{\SetTestVBox}[2]{%
956 \setbox#1=\vbox{%
957 \hsize=0pt\relax
958 \hfuzz=100mm\relax
959 \expandafter\testdriver\expandafter{#2}%
960 }%
961 }

```

\TestInfo

```

962 \newcommand*{\TestInfo}[2]{%
963 \par
964 \noindent
965 \copy#1\relax
966 \hfill
967 \begingroup
968 \small
969 \ifdim\wd0=\wd2\relax
970 \ifdim\wd0=\wd4\relax
971 \else
972 \ifnum#1=2 %
973 \raisebox{.5\baselineskip}[0pt][0pt]{%
974 \llap{$\}$ }%
975 \rlap{width = \the\wd#1\relax\space$\{ $\}%
976 \phantom{width = 999.99999pt}%
977 \qqquad

```

```

978         }%
979     \else
980         \ifnum#1=4 %
981             \rlap{width = \the\wd#1}%
982             \phantom{width = 999.99999pt}%
983         \qquad
984         \fi
985     \fi
986 \fi
987 \else
988     \begingroup
989     \bfseries
990     \rlap{width = \the\wd#1}%
991     \phantom{width = 999.99999pt}%
992 \endgroup
993 \qquad
994 \fi
995 \rlap{(#2)}%
996 \phantom{(original soul)}%
997 \endgroup
998 \par
999 }

```

\TestInfoVBox

```

1000 \newcommand*{\TestInfoVBox}{%
1001     \par
1002     \noindent
1003     \mbox{\vrule\relax\space\copy\boxA}%
1004     \ifdim\ht\boxA=\ht\boxB
1005     \else
1006         \hfill
1007         \begingroup
1008             \small
1009             \rlap{(soulutf8)}%
1010             \phantom{(soulutf8)}%
1011         \endgroup
1012     \par
1013     \noindent
1014     \mbox{\vrule\relax\space\copy\boxB}%
1015     \hfill
1016     \begingroup
1017         \small
1018         \rlap{(soul)}%
1019         \phantom{(soulutf8)}%
1020     \endgroup
1021 \fi
1022 \par
1023 }

```

\Test

```

1024 \makeatletter
1025 \newcommand*{\Test}[3]{%
1026     \clearpage
1027     \begingroup
1028         \def\linebreak{\textbackslash linebreak }%
1029         \def\{\textbackslash\textbackslash}%
1030         \def\soulomit#1{%
1031             \textbackslash soulomit\textbraceleft##1\textbraceright

```

```

1032 }%
1033 \def\mbox##1{%
1034   \textbackslash mbox\textbraceleft##1\textbraceright
1035 }%
1036 \def\abc{\textbackslash abc }%
1037 \def\texttt##1{%
1038   \textbackslash texttt\textbraceleft##1\textbraceright
1039 }%
1040 \def\c##1{%
1041   \textbackslash c\textbraceleft##1\textbraceright
1042 }%
1043 (*utf8x)
1044   \count@=128 %
1045   \loop
1046   \ifnum\count@<256 %
1047     \lccode`~=\count@
1048     \lowercase{%
1049       \def~{\noexpand~}%
1050     }%
1051     \advance\count@\@ne
1052   \repeat
1053 (/utf8x)
1054   \csname protected@edef\endcsname\x{\endgroup
1055     \noexpand\section{String #1: #2}%
1056   }%
1057   \x
1058   \TestDriver{so}{#1}{#2}{#3}%
1059   \TestDriver{caps}{#1}{#2}{#3}%
1060   \TestDriver{ul}{#1}{#2}{#3}%
1061   \TestDriver{st}{#1}{#2}{#3}%
1062   \TestDriver{hl}{#1}{#2}{#3}%
1063   \TestDriver{an}{#1}{#2}{#3}%
1064   \TestDriver{sy}{#1}{#2}{#3}%
1065   \TestDriver{soulH}{#1}{#2}{#3}%
1066 }
1067 \makeatother

```

### 3.2.3 Testing

```

1068 \begin{document}
1069   \Test A{}{}%
1070   \Test B{Hello World}{Hello World}%
1071   \Test C{%
1072     Umlauts: ^^c3^^84^^c3^^96^^c3^^9c^^c3^^a4^^c3^^b6^^c3^^bc^^c3^^9f%
1073   }%
1074     Umlauts: \"A\"O\"U\"a\"o\"u\"ss
1075   }%
1076   \Test D{Euro: ^^e2^^82^^ac}{Euro: \texteuro}%
1077   \Test E{Stra^^c3^^9fe}{Stra\ss e}%
1078   \Test F{R^^c3^^b6mer}{R\"omer}%
1079   \Test G{A^^e2^^80^^93B^^e2^^80^^94C}{A--B---C}%
1080   \Test H{X^^c2^^a0Y}{X~Y}%
1081   \Test I{A^^c5^^a4}{A\v T}%
1082   \Test J{A,B,,C,,,D,,,E}{A,B,,C,,,D,,,E}%
1083   \Test K{A'B'C''D'''E}{A'B'C''D'''E}%
1084   \Test L{A`B``C``D``E}{A`B``C``D``E}%
1085   \Test M{A$x$B}{A$x$B}%
1086   \Test N{A\mbox{abc}B}{A\mbox{abc}B}%

```

```

1087 \Test O{,,TA''}{,,TA''}%
1088 \Test P{!`}Hola{?`}{!`}Hola{?`}%
1089 \Test Q{re-sent\slash x}{re-sent\slash x}%
1090 \Test R{new\\line}{new\\line}%
1091 \Test S{foo\linebreak bar}{foo\linebreak bar}%
1092 \Test T{Virchow{sche}}{Virchow{sche}}%
1093 \Test U{A\soulomit{foo}B}{A\soulomit{foo}B}%
1094 \Test V{A\texttt{xyz}B}{A\texttt{xyz}B}%
1095 \Test W{ffi}{ffi}%
1096 \Test X{f{}f{}i}{f{}f{}i}%
1097 \Test Y{f\mbox{}f\mbox{}i}{f\mbox{}f\mbox{}i}%
1098 \Test Z{c{"a}}{c{"a}}%
1099 (*test2j test3)
1100 \let\abcx\UNDEFINED
1101 \def\abc{%
1102     \begingroup
1103         \def\abcx{x}%
1104         \abcx
1105     \endgroup
1106 }%
1107 \Test{AA}{[{x\abc x}]}{[{xxx}]}%
1108 (/test2j test3)
1109 \end{document}
1110 (/test2j test3j test4j test5)

```

## 4 Installation

### 4.1 Download

**Package.** This package is available on CTAN<sup>1</sup>:

[CTAN:macros/latex/contrib/oberdiek/soulutf8.dtx](#) The source file.

[CTAN:macros/latex/contrib/oberdiek/soulutf8.pdf](#) Documentation.

**Bundle.** All the packages of the bundle ‘oberdiek’ are also available in a TDS compliant ZIP archive. There the packages are already unpacked and the documentation files are generated. The files and directories obey the TDS standard.

[CTAN:install/macros/latex/contrib/oberdiek.tds.zip](#)

*TDS* refers to the standard “A Directory Structure for T<sub>E</sub>X Files” ([CTAN:pkg/tds](#)). Directories with `texmf` in their name are usually organized this way.

### 4.2 Bundle installation

**Unpacking.** Unpack the `oberdiek.tds.zip` in the TDS tree (also known as `texmf` tree) of your choice. Example (linux):

```
unzip oberdiek.tds.zip -d ~/texmf
```

### 4.3 Package installation

**Unpacking.** The `.dtx` file is a self-extracting docstrip archive. The files are extracted by running the `.dtx` through plain T<sub>E</sub>X:

```
tex soulutf8.dtx
```

---

<sup>1</sup>[CTAN:pkg/soulutf8](#)



**TDS.** Now the different files must be moved into the different directories in your installation TDS tree (also known as `texmf` tree):

```
soulutf8.sty      → tex/generic/oberdiek/soulutf8.sty
soulutf8.pdf      → doc/latex/oberdiek/soulutf8.pdf
test/soulutf8-test1.tex → doc/latex/oberdiek/test/soulutf8-test1.tex
test/soulutf8-test2.tex → doc/latex/oberdiek/test/soulutf8-test2.tex
test/soulutf8-test3.tex → doc/latex/oberdiek/test/soulutf8-test3.tex
test/soulutf8-test4.tex → doc/latex/oberdiek/test/soulutf8-test4.tex
test/soulutf8-test5.tex → doc/latex/oberdiek/test/soulutf8-test5.tex
soulutf8.dtx      → source/latex/oberdiek/soulutf8.dtx
```

If you have a `docstrip.cfg` that configures and enables `docstrip`'s TDS installing feature, then some files can already be in the right place, see the documentation of `docstrip`.

## 4.4 Refresh file name databases

If your  $\text{\TeX}$  distribution ( $\text{\TeX}$  Live, `mik $\text{\TeX}$` , ...) relies on file name databases, you must refresh these. For example,  $\text{\TeX}$  Live users run `texhash` or `mktextlsr`.

## 4.5 Some details for the interested

**Unpacking with  $\text{\LaTeX}$ .** The `.dtx` chooses its action depending on the format:

**plain  $\text{\TeX}$ :** Run `docstrip` and extract the files.

**$\text{\LaTeX}$ :** Generate the documentation.

If you insist on using  $\text{\LaTeX}$  for `docstrip` (really, `docstrip` does not need  $\text{\LaTeX}$ ), then inform the autodetect routine about your intention:

```
latex \let\install=y\input{soulutf8.dtx}
```

Do not forget to quote the argument according to the demands of your shell.

**Generating the documentation.** You can use both the `.dtx` or the `.drv` to generate the documentation. The process can be configured by the configuration file `ltxdoc.cfg`. For instance, put this line into this file, if you want to have A4 as paper format:

```
\PassOptionsToClass{a4paper}{article}
```

An example follows how to generate the documentation with `pdf $\text{\LaTeX}$` :

```
pdflatex soulutf8.dtx
makeindex -s gind.ist soulutf8.idx
pdflatex soulutf8.dtx
makeindex -s gind.ist soulutf8.idx
pdflatex soulutf8.dtx
```

## 5 References

- [1] Melchior Franz: *The soul package*; 2003/11/17;  
[CTAN:pkg/soul](#).
- [2] Dominique P. G. Unruh: *ucs.sty – Unicode Support*; 2004/10/17;  
[CTAN:pkg/unicode](#).
- [3] Frank Mittelbach, Chris Rowley: *Providing some UTF-8 support via inputenc*; 2006/03/30;  
[CTAN:macros/latex/base/utf8ienc.dtx](#).

## 6 History

[2007/09/09 v1.0]

- First version.

[2016/05/16 v1.1]

- Documentation updates.

## 7 Index

Numbers written in *italic* refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; plain numbers refer to the code lines where the entry is used.

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