`pathsuris.sty`: Paths and URIs for sTeX*

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Abstract

This package provides macros to deal with paths and base URIs for sTeX. In particular, it offers a path canonicalizer, which is used in package `modules`, in order to support modules specified with relative path.

Contents

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1 User Interface

1.1 Base URIs

\baseURI   \baseURI[1]

1.2 Using Absolute Paths

Finally, the separation of documents into multiple modules often profits from a symbolic management of file paths. To simplify this, the `modules` package supplies the `\defpath` macro: `\defpath[⟨baseURI⟩]{⟨cname⟩}{⟨path⟩}` defines a command, so that `\⟨csname⟩{⟨name⟩}` expands to ⟨path⟩/⟨name⟩. So we could have used

\defpath

```
\defpath{OPaths}{../other}
\importmodule[load=\OPahts{bar}]{bar}
```

instead of the second line in Example **??**. The variant `\OPaths` has the big advantage that we can get around the fact that TeX/LaTeX does not set the current directory in `\input`, so that we can use systematically deployed `\defpath`-defined path macros to make modules relocatable by defining the path macros locally. The optional parameter ⟨baseURI⟩ is for the LaTeXML transformation, which (if ⟨baseURI⟩ is specified) resolves ⟨path⟩ to an absolute URI according to [BFM05, section 5.2].

1.3 Path Canonicalization

By calling `\@cpath{⟨path⟩}`, the canonicalized path will be stored in `\@CanPath`. To print a canonicalized path, simply use `\cpath{⟨path⟩}`. Here is a set of examples with their canonizalized paths for testing.

\cpath

path	canonicalized path	expected
aaa	aaa	aaa
../../aaa	../../aaa	../../aaa
aaa/bbb	aaa/bbb	aaa/bbb
aaa/..		
../../aaa/bbb	../../aaa/bbb	../../aaa/bbb
../aaa/../bbb	../bbb	../bbb
../aaa/bbb	../aaa/bbb	../aaa/bbb
aaa/bbb/../ddd	aaa/ddd	aaa/ddd
aaa/bbb/../..		

1.4 URIs

By calling `\seturi[\meta{macroname}]{⟨path⟩}`, the URI will be split into its components `\macronamescheme`, `\macronameauthority`, `\macronamepath`,

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[1] EDNOTE: document it

\macronamequery and \macronamefragment, and the resolved URI itself is stored in \macronameuri, as in the following example. If the optional `macroname` is not provided, the default name is `pathsuris@curruri@`.

In order to differentiate between empty and missing components, a missing component will be equal to \makeuri@empty, whose *expansion* is \relax.

\seturi[myuri]{http://this.isatest/foo/bar/?query#fragment}

yields:

macro	value
\myuriuri	http://this.isatest/foo/bar?query#fragment
\myurischeme	http
\myuriauthority	this.isatest
\myuripath	foo/bar
\myuriquery	query
\myurifragment	fragment

\makeuri{\meta{scheme}}{\meta{authority}}{\meta{path}}{\meta{query}}{\meta{fragment}} constructs a URI from its individual components. The (expanded and resolved) individual components will be stored in \makeuri@scheme, \makeuri@authority, etc.; the resolved URI will be stored in \makeuri@uri.

\asuri{\meta{macroname}}{\meta{uri}}, similarly to setpath, defines a new macro \macroname[\meta{newmacroname}]{\meta{command}} that allows manipulating `uri` in various ways. \asuri calls \seturi[\meta{macroname}]{\meta{uri}}, so the individual components and full uri (as string) are subsequently stored in \macronamescheme, \macronameauthority, etc.

If an optional new macro name is given in \macroname, then the result of the modification is stored in that new macro, as if defined via \asuri; otherwise, the macro is modified "in place".

- \macroname{drop query} drops the query component.

- \macroname{drop fragment} drops the fragment component.

- \macroname{/other/path} drops query and fragment, appends `other/path` to the path and resolves the URI.

- \macroname{?newquery} drops the fragment and either declares `newquery` as a new query component, or appends `?newquery` to the existing query component, if it is not \makeuri@empty. Note, that this behaviour diverges from the official URI specification, but it conforms to MMT URI's, which use ? as separator between DPaths, modules names and declaration names.

- \macroname{#newfragment} analogously to {?newquery}.

2 The Implementation

```
1 ⟨*package⟩
2 \RequirePackage{stex-base}
3 \RequirePackage{xstring}
4 \RequirePackage{etoolbox}
```

2.1 Base URIs

\baseURI   On the LaTeX side we do nothing (for the moment).

```
5 \newcommand\baseURI[2][]{}
```

2.2 Using Absolute Paths

\defpath   \defpath[optional argument]{macro name}{base path} defines a new macro
which can take another path to formal one integrated path. For example, \MathHub
in every localpaths.tex is defined as:

\defpath{MathHub}{/path/to/localmh/MathHub}

then we can use \MathHub to form other paths, for example,

\MathHub{source/smglom/sets}

will generate /path/to/localmh/MathHub/source/smglom/sets.

```
6 \newrobustcmd\defpath[3][]{%
7   \expandafter\newcommand\csname #2\endcsname[1]{#3/##1}%
8 }%
```

2.3 Path Canonicalization

We define two macros for changing the category codes of common characters in
URIs, in particular #.

```
 9 \def\pathsuris@setcatcodes{%
10     \edef\pathsuris@oldcatcode@hash{\the\catcode`\#}%
11     \catcode`\#=12\relax%
12     \edef\pathsuris@oldcatcode@slash{\the\catcode`\/}%
13     \catcode`\/=12\relax%
14     \edef\pathsuris@oldcatcode@colon{\the\catcode`\:}%
15     \catcode`\:=12\relax%
16     \edef\pathsuris@oldcatcode@qm{\the\catcode`\?}%
17     \catcode`\?=12\relax%
18 }
19 \def\pathsuris@resetcatcodes{%
20     \catcode`\#\pathsuris@oldcatcode@hash\relax%
21     \catcode`\/\pathsuris@oldcatcode@slash\relax%
22     \catcode`\:\pathsuris@oldcatcode@colon\relax%
23     \catcode`\?\pathsuris@oldcatcode@qm\relax%
24 }
```

We define some macros for later comparison.

```
25 \def\@ToTop{..}
26 \def\@Slash{/}
27 \def\@Colon{:}
28 \def\@QuestionMark{?}
29 \def\@Dot{.}
30
31 \pathsuris@setcatcodes
32 \def\@Fragment{#}
33 \pathsuris@resetcatcodes
```

Implement \@cpath.

\@cpath

```
34 \def\@cpath#1{%
35     \edef\pathsuris@cpath@temp{#1}%
36     \def\@CanPath{}%
37     \IfBeginWith\pathsuris@cpath@temp\@Slash{%
38       \@cpath@loop%
39       \edef\@CanPath{\@Slash\@CanPath}%
40     }{%
41       \@cpath@loop%
42     }%
43     \IfEndWith\@CanPath\@Slash{%
44       \ifx\@CanPath\@Slash\else%
45         \StrGobbleRight\@CanPath1[\@CanPath]%
46       \fi%
47     }{}%
48 }
49
50 \def\@cpath@loop{%
51     \IfSubStr\pathsuris@cpath@temp\@Slash{%
52         \StrCut\pathsuris@cpath@temp\@Slash\pathsuris@cpath@temp@a\pathsuris@cpath@temp%
53         \ifx\pathsuris@cpath@temp@a\@ToTop%
54             \ifx\@CanPath\@empty%
55                 \edef\@CanPath{\@ToTop}%
56             \else%
57                 \edef\@CanPath{\@CanPath\@Slash\@ToTop}%
58             \fi%
59             \@cpath@loop%
60         \else%
61         \IfBeginWith\pathsuris@cpath@temp\@ToTop{%
62             \StrBehind{\pathsuris@cpath@temp}{\@ToTop}[\pathsuris@cpath@temp]%
63             \IfBeginWith\pathsuris@cpath@temp\@Slash{%
64                 \edef\pathsuris@cpath@temp{\@CanPath\pathsuris@cpath@temp}%
65             }{%
66                 \ifx\@CanPath\@empty\else%
67                     \edef\pathsuris@cpath@temp{\@CanPath\@Slash\pathsuris@cpath@temp}
68                 \fi%
69             }%
```

5

```
70          \def\@CanPath{}%
71          \@cpath@loop%
72      }{%
73          \ifx\@CanPath\@empty%
74              \edef\@CanPath{\pathsuris@cpath@temp@a}%
75          \else%
76              \edef\@CanPath{\@CanPath\@Slash\pathsuris@cpath@temp@a}%
77          \fi%
78          \@cpath@loop
79      }%
80      \fi%
81  }{
82      \ifx\@CanPath\@empty%
83          \edef\@CanPath{\pathsuris@cpath@temp}%
84      \else%
85          \edef\@CanPath{\@CanPath\@Slash\pathsuris@cpath@temp}%
86      \fi%
87  }%
88 }
```

Implement `\cpath` to print the canonicalized path.

\cpath

```
89 \newcommand\cpath[1]{%
90     \@cpath{#1}%
91     \@CanPath%
92 }
```

2.4   URIs

Various macros for dealing with URIs. To deal with empty URI components (scheme, authority, etc.), we use `{\relax}` to signify an non-existent component as oppsed to an empty one.

```
93 \def\makeuri@setempty#1{\def#1{\relax}}
94 \def\makeuri@empty{\relax}
95 \def\makeuri@test#1{%
96     \ifx#1\makeuri@empty\else#1\fi%
97 }
```

\makeuri   `\makeuri` constructs a URI from scheme, authority, path, query and fragment separately.

```
98 \def\makeuri@uri{}
99 \def\makeuri#1#2#3#4#5{
100     \edef\makeuri@scheme{#1}
101     \edef\makeuri@authority{#2}
102     \edef\makeuri@path{#3}
103     \ifx\makeuri@path\makeuri@empty\else
104         \@cpath{#3}
105         \edef\makeuri@path{\@CanPath}
```

```
106     \fi
107     \edef\makeuri@query{#4}
108     \edef\makeuri@fragment{#5}
109     \ifx\makeuri@scheme\makeuri@empty\else
110         \edef\makeuri@scheme{\makeuri@scheme\@Colon}
111     \fi
112     \ifx\makeuri@authority\makeuri@empty\else
113         \edef\makeuri@authority{\@Slash\@Slash\makeuri@authority}
114         \ifx\makeuri@path\makeuri@empty\else
115             \IfBeginWith\makeuri@path\@Slash{}{
116                 \edef\makeuri@path{\@Slash\makeuri@path}
117             }
118         \fi
119     \fi
120     \ifx\makeuri@query\makeuri@empty\else
121         \edef\makeuri@query{\@QuestionMark\makeuri@query}
122     \fi
123     \ifx\makeuri@fragment\makeuri@empty\else
124         \edef\makeuri@fragment{\@Fragment\makeuri@fragment}
125     \fi
126     \edef\makeuri@uri{%
127         \makeuri@test\makeuri@scheme%
128         \makeuri@test\makeuri@authority%
129         \makeuri@test\makeuri@path%
130         \makeuri@test\makeuri@query%
131         \makeuri@test\makeuri@fragment%
132     }
133 }
```

\seturi@

```
134 \newif\if@pathsuris@done@
135 \def\seturi@[#1]#2{%
136     \@pathsuris@done@false%
137     \def\pathsuris@prefix@temp{#1}
138     \edef\pathsuris@curruri{#2}%
139     \edef\pathsuris@curruri{\expandafter\detokenize\expandafter{\pathsuris@curruri}}
140     \let\pathsuris@temp\pathsuris@curruri%
141     \makeuri@setempty\pathsuris@curruri@scheme%
142     \makeuri@setempty\pathsuris@curruri@authority%
143     \makeuri@setempty\pathsuris@curruri@path%
144     \makeuri@setempty\pathsuris@curruri@query%
145     \makeuri@setempty\pathsuris@curruri@fragment%
146     % scheme
147     \IfSubStr{\pathsuris@temp}{\@Colon}{%
148         % TODO check for valid scheme
149         \StrBefore{\pathsuris@temp}{\@Colon}[\pathsuris@curruri@scheme]%
150         \StrBehind{\pathsuris@temp}{\@Colon}[\pathsuris@temp]%
151     }{}%
152     % authority
153     \IfBeginWith{\pathsuris@temp}{\@Slash\@Slash}{%
```

```latex
154        \StrBehind{\pathsuris@temp}{\@Slash\@Slash}[\pathsuris@temp]%
155        \IfSubStr{\pathsuris@temp}{\@Slash}{%
156            \StrBefore{\pathsuris@temp}{\@Slash}[\pathsuris@curruri@authority]%
157            \StrBehind{\pathsuris@temp}{\@Slash}[\pathsuris@temp]%
158            % TODO userinfo,host,port
159        }{%
160            \IfSubStr\pathsuris@temp\@QuestionMark{
161                \StrBefore{\pathsuris@temp}{\@QuestionMark}[\pathsuris@curruri@authority]%
162                \StrBehind{\pathsuris@temp}{\@QuestionMark}[\pathsuris@temp]%
163                \edef\pathsuris@temp{\@QuestionMark\pathsuris@temp}%
164            }{
165                \IfSubStr\pathsuris@temp\@Fragment{
166                    \StrBefore{\pathsuris@temp}{\@Fragment}[\pathsuris@curruri@authority]%
167                    \StrBehind{\pathsuris@temp}{\@Fragment}[\pathsuris@temp]%
168                    \edef\pathsuris@temp{\@Fragment\pathsuris@temp}%
169                }{
170                    \edef\pathsuris@curruri@authority{\pathsuris@temp}%
171                    \@pathsuris@done@true%
172                }
173            }
174        }%
175    }{}%
176    % path, query, fragment
177    \if@pathsuris@done@\else%
178        \IfSubStr{\pathsuris@temp}{\@QuestionMark}{%
179            % path
180            \StrBefore{\pathsuris@temp}{\@QuestionMark}[\pathsuris@curruri@path]%
181            \@cpath\pathsuris@curruri@path%
182            \edef\pathsuris@curruri@path{\@CanPath}%
183            \StrBehind{\pathsuris@temp}{\@QuestionMark}[\pathsuris@temp]%
184            % query,fragment
185            \IfSubStr{\pathsuris@temp}{\@Fragment}{%
186                \StrBefore{\pathsuris@temp}{\@Fragment}[\pathsuris@curruri@query]%
187                \StrBehind{\pathsuris@temp}{\@Fragment}[\pathsuris@curruri@fragment]%
188            }{%
189                \edef\pathsuris@curruri@query{\pathsuris@temp}%
190            }%
191        }{%
192            % path,fragment
193            \IfSubStr{\pathsuris@temp}{\@Fragment}{%
194                \StrBefore{\pathsuris@temp}{\@Fragment}[\pathsuris@curruri@path]%
195                \@cpath\pathsuris@curruri@path%
196                \edef\pathsuris@curruri@path{\@CanPath}%
197                \StrBehind{\pathsuris@temp}{\@Fragment}[\pathsuris@curruri@fragment]%
198            }{%
199                \edef\pathsuris@curruri@path{\pathsuris@temp}%
200            }%
201        }%
202    \fi%
203    \makeuri\pathsuris@curruri@scheme\pathsuris@curruri@authority\pathsuris@curruri@path\pathsu
```

```
204     \let\pathsuris@curruri@uri\makeuri@uri
205     %drop trailing slash of path
206     %\IfEndWith{\pathsuris@curruri@path}{\@Slash}{%
207     %    \StrGobbleRight{\pathsuris@curruri@path}{1}[\pathsuris@curruri@path]
208     %}{}%
209     %
210     %\edef\pathsuris@curruri@path{\cpath{\pathsuris@curruri@path}}%
211     \ifx\pathsuris@prefix@temp\@empty\else%
212         \expandafter\let\csname \pathsuris@prefix@temp scheme\endcsname\pathsuris@curruri@schem
213         \expandafter\let\csname \pathsuris@prefix@temp authority\endcsname\pathsuris@curruri@au
214         \expandafter\let\csname \pathsuris@prefix@temp path\endcsname\pathsuris@curruri@path%
215         \expandafter\let\csname \pathsuris@prefix@temp query\endcsname\pathsuris@curruri@query%
216         \expandafter\let\csname \pathsuris@prefix@temp fragment\endcsname\pathsuris@curruri@fra
217         \expandafter\let\csname \pathsuris@prefix@temp uri\endcsname\pathsuris@curruri@uri%
218     \fi%
219 }
```

\seturi

```
220 \newrobustcmd\seturi[1][]{%
221     \pathsuris@setcatcodes%
222     \expandafter\pathsuris@resetcatcodes\seturi@[#1]%
223 }
```

\asuri   \asuri{macroname}{uri} generates \macroname[optional new macro name]{action},
that allows for modifying uri in various ways.

```
224
225 \def\asuri#1{%
226     \pathsuris@setcatcodes%
227     \expandafter\pathsuris@resetcatcodes\@asuri[#1]%
228 }
229
230 \def\@asuri[#1]#2{
231     \@cpath{#2}
232     \expandafter\def\csname #1\endcsname{}
233     \expandafter\edef\csname #1uri\endcsname{\@CanPath}
234     \seturi[#1]{\@CanPath}
235     \expandafter\renewcommand\csname #1\endcsname[1][]{%
236         \pathsuris@setcatcodes%
237         \@@asuri@[##1]{#1}%
238     }%
239 }
240
241 \protected\def\@@asuri@[#1]#2#3{
242     \pathsuris@resetcatcodes
243     \@@asuri[#1]{#2}{#3}
244 }
245
246 \newif\if@asuri@changed@
247 \protected\def\@@asuri[#1]#2#3{
```

```
248    \@asuri@changed@false
249    \edef\@@asuri@command{#3}
250    \trimstring\@@asuri@command
251    \IfBeginWith\@@asuri@command{drop}{
252        \StrBehind{\@@asuri@command}{drop}[\@@asuri@command]
253        \trimstring\@@asuri@command
254        \IfStrEq\@@asuri@command{query}{
255            \makeuri{\csname #2scheme\endcsname}%
256                {\csname #2authority\endcsname}%
257                {\csname #2path\endcsname}%
258                \makeuri@empty%
259                {\csname #2fragment\endcsname}%
260            \@asuri@changed@true
261        }{
262        \IfStrEq\@@asuri@command{fragment}{
263            \makeuri{\csname #2scheme\endcsname}%
264                {\csname #2authority\endcsname}%
265                {\csname #2path\endcsname}%
266                {\csname #2query\endcsname}%
267                \makeuri@empty%
268            \@asuri@changed@true
269        }{
270        \IfStrEq\@@asuri@command{extension}{
271            \edef\@asuri@oldpath{\csname #2path\endcsname}
272            \StrCount\@asuri@oldpath.[\@asuri@lastdot]
273            \ifnum\@asuri@lastdot>0
274                \StrBehind[\@asuri@lastdot]\@asuri@oldpath.[\@asuri@extension]
275                \IfSubStr\@asuri@extension\@Slash{}{
276                    \StrBefore[\@asuri@lastdot]\@asuri@oldpath.[\@asuri@oldpath]
277                }
278            \fi
279            \makeuri{\csname #2scheme\endcsname}%
280                {\csname #2authority\endcsname}%
281                \@asuri@oldpath%
282                \makeuri@empty%
283                \makeuri@empty%
284            \@asuri@changed@true
285        }{}}}
286    }{
287    \IfBeginWith\@@asuri@command{\@Slash}{
288        \@cpath{\csname #2path\endcsname\@@asuri@command}
289        \makeuri{\csname #2scheme\endcsname}%
290            {\csname #2authority\endcsname}%
291            {\@CanPath}%
292            \makeuri@empty%
293            \makeuri@empty%
294        \@asuri@changed@true
295    }{
296    \IfBeginWith\@@asuri@command{\@QuestionMark}{
297        \expandafter\ifx\csname #2query\endcsname\makeuri@empty
```

```
298        \StrBehind\@@asuri@command\@QuestionMark[\@@asuri@command]
299            \edef\@@asuri@nquery{\@@asuri@command}
300        \else
301            \edef\@@asuri@nquery{\csname #2query\endcsname\@@asuri@command}
302        \fi
303        \makeuri{\csname #2scheme\endcsname}%
304            {\csname #2authority\endcsname}%
305            {\csname #2path\endcsname}%
306            {\@@asuri@nquery}%
307            \makeuri@empty%
308        \@asuri@changed@true
309    }{
310    \IfBeginWith\@@asuri@command{\@Fragment}{
311        \expandafter\ifx\csname #2fragment\endcsname\makeuri@empty
312            \StrBehind\@@asuri@command\@Fragment[\@@asuri@command]
313            \edef\@@asuri@nfrag{\@@asuri@command}
314        \else
315            \edef\@@asuri@nfrag{\csname #2fragment\endcsname\@@asuri@command}
316        \fi
317        \makeuri{\csname #2scheme\endcsname}%
318            {\csname #2authority\endcsname}%
319            {\csname #2path\endcsname}%
320            {\csname #2query\endcsname}%
321            {\@@asuri@nfrag}%
322        \@asuri@changed@true
323    }{}
324    }}}
325    \edef\@@asuri@ncs{#1}
326    \if@asuri@changed@
327        \ifx\@@asuri@ncs\@empty
328            \asuri{#2}\makeuri@uri
329        \else
330            \asuri\@@asuri@ncs\makeuri@uri
331        \fi
332    \fi
333 }
334
```

auxiliary code:

```
335 \def\@Space{ }
336 \def\trimstring#1{
337     \edef\pathsuris@trim@temp{#1}
338     \IfBeginWith\pathsuris@trim@temp\@Space{
339         \StrGobbleLeft\pathsuris@trim@temp1[#1]
340         \trimstring{#1}
341     }{
342         \IfEndWith\pathsuris@trim@temp\@Space{
343             \StrGobbleRight\pathsuris@trim@temp1[#1]
344             \trimstring{#1}
345         }{
```

```
346        \edef#1{\pathsuris@trim@temp}
347      }
348    }
349 }
350
351 % windows paths
352
353 \catcode`\.=0
354 .catcode`.\=12
355 .let.@BackSlash\
356 .catcode`.\=0
357 \catcode`\.=12
358
359 \newif\if@windowstopath@inpath@
360 \def\windows@to@path#1{
361    \@windowstopath@inpath@false
362    \def\windows@temp{}
363    \edef\windows@path{#1}
364    \ifx\windows@path\@empty\else
365        \expandafter\windows@path@loop\windows@path\windows@path@end
366    \fi
367    \let#1\windows@temp
368 }
369 \def\windows@path@loop#1#2\windows@path@end{
370    \def\windows@temp@b{#2}
371    \ifx\windows@temp@b\@empty
372        \def\windows@continue{}
373    \else
374        \def\windows@continue{\windows@path@loop#2\windows@path@end}
375    \fi
376    \if@windowstopath@inpath@
377        \ifx#1\@BackSlash
378            \edef\windows@temp{\windows@temp\@Slash}
379        \else
380            \edef\windows@temp{\windows@temp#1}
381        \fi
382    \else
383        \ifx#1:
384            \edef\windows@temp{\@Slash\windows@temp}
385            \@windowstopath@inpath@true
386        \else
387            \edef\windows@temp{\windows@temp#1}
388        \fi
389    \fi
390    \windows@continue
391 }
392
393 \def\path@to@windows#1{
394    \@windowstopath@inpath@false
395    \def\windows@temp{}
```

```
396     \edef\windows@path{#1}
397     \edef\windows@path{\expandafter\@gobble\windows@path}
398     \ifx\windows@path\@empty\else
399         \expandafter\path@windows@loop\windows@path\windows@path@end
400     \fi
401     \let#1\windows@temp
402 }
403 \def\path@windows@loop#1#2\windows@path@end{
404     \def\windows@temp@b{#2}
405     \ifx\windows@temp@b\@empty
406         \def\windows@continue{}
407     \else
408         \def\windows@continue{\path@windows@loop#2\windows@path@end}
409     \fi
410     \if@windowstopath@inpath@
411         \ifx#1/
412             \edef\windows@temp{\windows@temp\@BackSlash}
413         \else
414             \edef\windows@temp{\windows@temp#1}
415         \fi
416     \else
417         \ifx#1/
418             \edef\windows@temp{\windows@temp:\@BackSlash}
419             \@windowstopath@inpath@true
420         \else
421             \edef\windows@temp{\windows@temp#1}
422         \fi
423     \fi
424     \windows@continue
425 }
426
427 % kpsewhich
428
429 \newif\if@iswindows@\@iswindows@false
430 \IfFileExists{nul:}{\IfFileExists{/dev/null}{}{\@iswindows@true}}{}
431
432 \def\kpsewhich#1#2{\begingroup
433   \def\@Space{ }
434   \edef\kpsewhich@cmd{"|kpsewhich #2"}
435   \everyeof{\noexpand}
436   \catcode`\\=12
437   \edef#1{\@@input\kpsewhich@cmd\@Space}
438   \trimstring#1
439   \global\let#1#1
440 \endgroup}
441
442 % main directory
443
444 \edef\oldpercentcatcode{\the\catcode`\%}
445 \catcode`\%=12
```

```
446 \let\percent%
447 \catcode'\%=\oldpercentcatcode
448
449 \edef\pwd@cmd{\if@iswindows@ -expand-var \percent CD\percent\else -var-value PWD\fi}
450 \kpsewhich\stex@maindir\pwd@cmd
451 \if@iswindows@\windows@to@path\stex@maindir\fi
452
453 \def\path@filename#1#2{
454     \edef\filename@oldpath{#1}
455     \StrCount\filename@oldpath\@Slash[\filename@lastslash]
456     \ifnum\filename@lastslash>0
457         \StrBehind[\filename@lastslash]\filename@oldpath\@Slash[\filename@oldpath]
458         \csedef{#2}{\filename@oldpath}
459     \else
460         \csedef{#2}{\filename@oldpath}
461     \fi
462 }
463
464 \def\path@dropextension#1#2{
465     \path@filename{#1}{dropextension@temp}
466     \StrCount\dropextension@temp\@Dot[\dropextension@lastdot]
467     \ifnum\dropextension@lastdot>0
468         \StrBehind[\dropextension@lastdot]\dropextension@temp\@Dot[\dropextension@ext]
469         \StrLen\dropextension@ext[\dropextension@lastdot]
470         \StrGobbleRight{#1}{\the\numexpr\dropextension@lastdot+1\@Space}[\dropextension@temp]
471         \trimstring\dropextension@temp
472         \csedef{#2}{\dropextension@temp}
473     \else
474         \csedef{#2}{#1}
475     \fi
476 }
477
478 ⟨/package⟩
```

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Change History

References

[BFM05]   Tim Berners-Lee, Roy T. Fielding, and Larry Masinter. *Uniform Resource Identifier (URI): Generic Syntax.* RFC 3986. Internet Engineering Task Force (IETF), 2005. URL: `http://www.ietf.org/rfc/rfc3986.txt`.