# pathsuris.sty: Paths and URIs for STEX\*

# Jinbo Zhang, Michael Kohlhase, Dennis Müller FAU Erlangen-Nürnberg

October 4, 2020

#### 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

1		r Interface													
	1.1	Base URIs													
	1.2	Using Absolute Paths													
	1.3	Path Canonicalization													
	1.4	URI splitting													
<b>2</b>	The	Implementation													
	2.1	Base URIs													
	2.2	Using Absolute Paths													
	2.3	Path Canonicalization													
	2.4	URI splitting													

<sup>\*</sup>Version v2.1 (last revised 2020/09/30)

#### User Interface 1

#### Base URIs 1.1

 $\begin{tabular}{l} \textbf{baseURI}^1 \end{array}$ \baseURI

EdN: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:  $\defpath[\langle baseURI \rangle] \{\langle cname \rangle\} \{\langle path \rangle\}$  defines \defpath a command, so that  $\langle csname \rangle \{\langle name \rangle\}$  expands to  $\langle path \rangle / \langle name \rangle$ . So we could have used

> \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  $\langle baseURI \rangle$  is for the LATEXML transformation, which (if  $\langle baseURI \rangle$  is specified) resolves  $\langle path \rangle$  to an absolute URI according to [BFM05, section 5.2].

#### 1.3 Path Canonicalization

To print a canonicalized path, simply use  $\{path\}$ . Here is a set of examples with their canonizalized paths for testing.

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//		

#### $\mathbf{URIs}$ 1.4

By calling \seturi[\meta{macroname}]{ $\langle path \rangle$ }, the URI will be split into its components \macronamescheme, \macronameauthority, \macronamepath,

 $<sup>^{1}\</sup>mathrm{EdNote}$ : 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}

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

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

```
We define some macros for later comparison.
         25 \def\@ToTop{..}
         26 \left( \frac{0}{2} \right)
         27 \def\@Colon{:}
         28 \def\@QuestionMark{?}
         29 \def\@ToHere{.}
         30
         31 \pathsuris@setcatcodes
         32 \def\@Fragment{#}
         33 \pathsuris@resetcatcodes
         Implement \@cpath.
\@cpath
         34 \left(\frac{9}{2}\right)
                \edef\pathsuris@cpath@temp{#1}%
         35
                \def\CanPath{}%
         36
         37
                \IfBeginWith\pathsuris@cpath@temp\@Slash{%
                  \@cpath@loop%
         38
                  \edef\@CanPath{\@Slash\@CanPath}%
         39
                }{%
         40
                  \@cpath@loop%
         41
                }%
         42
                \IfEndWith\@CanPath\@Slash{%
         43
                  \ifx\@CanPath\@Slash\else%
         44
         45
                    \StrGobbleRight\@CanPath1[\@CanPath]%
         46
                  \fi%
                }{}%
         47
         48 }
         49
         50 \def\@cpath@loop{%
                \IfSubStr\pathsuris@cpath@temp\@Slash{%
         51
                    \StrCut\pathsuris@cpath@temp\@Slash\pathsuris@cpath@temp@a\pathsuris@cpath@temp%
         52
                    \ifx\pathsuris@cpath@temp@a\@ToTop%
         53
                         \ifx\@CanPath\@empty%
         54
                             \edef\@CanPath{\@ToTop}%
         55
         56
                         \else%
                             \edef\@CanPath{\@CanPath\@Slash\@ToTop}%
         57
                         \fi%
         58
                        \@cpath@loop%
         59
                    \else%
         60
                    \IfBeginWith\pathsuris@cpath@temp\@ToTop{%
         61
                         \StrBehind{\pathsuris@cpath@temp}{\@ToTop}[\pathsuris@cpath@temp]%
         62
                         \IfBeginWith\pathsuris@cpath@temp\@Slash{%
         63
                             \edef\pathsuris@cpath@temp{\@CanPath\pathsuris@cpath@temp}%
         64
                        }{%
         65
                             \ifx\@CanPath\@empty\else%
         66
                                 \edef\pathsuris@cpath@temp{\@CanPath\@Slash\pathsuris@cpath@temp}
         67
                             \fi%
         68
```

}%

69

```
70
                                                                                                \def\@CanPath{}%
                                                                                                \@cpath@loop%
71
                                                                   }{%
72
                                                                                                \ifx\@CanPath\@empty%
73
                                                                                                                          \edef\@CanPath{\pathsuris@cpath@temp@a}%
74
75
                                                                                                \else%
76
                                                                                                                           \edef\@CanPath\\@CanPath\\@Slash\pathsuris@cpath@temp@a}%
                                                                                                \fi%
77
                                                                                                \@cpath@loop
78
                                                                    }%
79
                                                                    \fi%
80
                                         }{
81
                                                                     \ifx\@CanPath\@empty%
82
                                                                                                \edef\@CanPath{\pathsuris@cpath@temp}%
83
                                                                     \else%
84
                                                                                                \verb|\edge f @ CanPath { @ CanPath @ Slash pathsur is @ cpath @ temp} % | A converge for the property of the pr
85
                                                                     \pi
86
                                         }%
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}
```

```
\edef\makeuri@query{#4}
         107
                 \edef\makeuri@fragment{#5}
         108
                 \ifx\makeuri@scheme\makeuri@empty\else
         109
                     \edef\makeuri@scheme\@Colon}
         110
         111
         112
                 \ifx\makeuri@authority\makeuri@empty\else
         113
                     \edef\makeuri@authority{\@Slash\@Slash\makeuri@authority}
                     \ifx\makeuri@path\makeuri@empty\else
         114
                         \IfBeginWith\makeuri@path\@Slash{}{
         115
                             \edef\makeuri@path{\@Slash\makeuri@path}
         116
         117
                     \fi
         118
                 \fi
         119
                 \ifx\makeuri@query\makeuri@empty\else
         120
                     \edef\makeuri@query{\@QuestionMark\makeuri@query}
         121
                 \fi
         122
                 \ifx\makeuri@fragment\makeuri@empty\else
         123
         124
                     \edef\makeuri@fragment{\@Fragment\makeuri@fragment}
         125
         126
                 \edef\makeuri@uri{%
                     \makeuri@test\makeuri@scheme%
         127
                     \makeuri@test\makeuri@authority%
         128
                     \makeuri@test\makeuri@path%
         129
         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}
                 \edef\pathsuris@curruri{#2}%
         138
         139
                 \let\pathsuris@temp\pathsuris@curruri%
         140
                 \makeuri@setempty\pathsuris@curruri@scheme%
                 \makeuri@setempty\pathsuris@curruri@authority%
         141
                 \makeuri@setempty\pathsuris@curruri@path%
         142
                 \makeuri@setempty\pathsuris@curruri@query%
         143
                 \makeuri@setempty\pathsuris@curruri@fragment%
         144
                 % scheme
         145
                 \IfSubStr{\pathsuris@temp}{\@Colon}{%
         146
                     \% TODO check for valid scheme
         147
                     \StrBefore{\pathsuris@temp}{\@Colon}[\pathsuris@curruri@scheme]%
         148
                     \StrBehind{\pathsuris@temp}{\@Colon}[\pathsuris@temp]%
         149
                }{}%
         150
                % authority
         151
         152
                 \IfBeginWith{\pathsuris@temp}{\@Slash\@Slash}{%
                     \StrBehind{\pathsuris@temp}{\@Slash\@Slash}[\pathsuris@temp]%
         153
```

\fi

106

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

203

```
%drop trailing slash of path
        204
               %\IfEndWith{\pathsuris@curruri@path}{\@Slash}{%
        205
               %
                     \StrGobbleRight{\pathsuris@curruri@path}{1}[\pathsuris@curruri@path]
        206
               %}{}%
        207
               %
        208
        209
               %\edef\pathsuris@curruri@path{\cpath{\pathsuris@curruri@path}}%
        210
                \ifx\pathsuris@prefix@temp\@empty\else%
                    \expandafter\let\csname \pathsuris@prefix@temp scheme\endcsname\pathsuris@curruri@schem
        211
                    \expandafter\let\csname \pathsuris@prefix@temp authority\endcsname\pathsuris@curruri@au
        212
                    \expandafter\let\csname \pathsuris@prefix@temp path\endcsname\pathsuris@curruri@path%
        213
                    \expandafter\let\csname \pathsuris@prefix@temp query\endcsname\pathsuris@curruri@query%
        214
        215
                    \expandafter\let\csname \pathsuris@prefix@temp fragment\endcsname\pathsuris@curruri@fra
                    \expandafter\let\csname \pathsuris@prefix@temp uri\endcsname\pathsuris@curruri@uri%
        216
                \fi%
        217
        218 }
\seturi
        219 \newrobustcmd\seturi[1][]{%
                \pathsuris@setcatcodes%
        220
        221
                \expandafter\pathsuris@resetcatcodes\seturi@[#1]%
        222 }
 \asuri
         \asuri{macroname}{uri} generates \macroname[optional new macro name]{action},
         that allows for modifying uri in various ways.
        223
        224 \def\asuri#1{%
        225
                \pathsuris@setcatcodes%
        226
                \expandafter\pathsuris@resetcatcodes\@asuri[#1]%
        227 }
        228
        229 \def\@asuri[#1]#2{
                \@cpath{#2}
        230
        231
                \expandafter\def\csname #1\endcsname{}
                \expandafter\edef\csname #1uri\endcsname{\@CanPath}
        232
                \seturi[#1]{\@CanPath}
        233
                \expandafter\renewcommand\csname #1\endcsname[1][]{%
        234
        235
                    \pathsuris@setcatcodes%
                    \@@asuri@[##1]{#1}%
        236
                }%
        237
        238 }
        239
        240 \protected\def\@@asuri@[#1]#2#3{
        241
                \pathsuris@resetcatcodes
        242
                \@@asuri[#1]{#2}{#3}
        243 }
        244
        245 \newif\if@asuri@changed@
        246 \protected\def\@@asuri[#1]#2#3{
                \@asuri@changed@false
```

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

```
\edef\@@asuri@nquery{\@@asuri@command}
298
            \else
299
                \edef\@@asuri@nquery{\csname #2query\endcsname\@@asuri@command}
300
            \fi
301
            \makeuri{\csname #2scheme\endcsname}%
302
303
                {\csname #2authority\endcsname}%
304
                {\csname #2path\endcsname}%
                {\@@asuri@nquery}%
305
                \makeuri@empty%
306
            \@asuri@changed@true
307
       }{
308
        \IfBeginWith\@@asuri@command{\@Fragment}{
309
310
            \expandafter\ifx\csname #2fragment\endcsname\makeuri@empty
                \StrBehind\@@asuri@command\@Fragment[\@@asuri@command]
311
                \edef\@@asuri@nfrag{\@@asuri@command}
312
            \else
313
                \edef\@@asuri@nfrag{\csname #2fragment\endcsname\@@asuri@command}
314
            \fi
315
316
            \makeuri{\csname #2scheme\endcsname}%
317
                {\csname #2authority\endcsname}%
                {\csname #2path\endcsname}%
318
                {\csname #2query\endcsname}%
319
                {\@@asuri@nfrag}%
320
            \@asuri@changed@true
321
       }{}
322
323
       }}}
       \edef\@@asuri@ncs{#1}
324
        \if@asuri@changed@
325
            \ifx\@@asuri@ncs\@empty
326
                \asuri{#2}\makeuri@uri
327
            \else
328
329
                \asuri\@@asuri@ncs\makeuri@uri
330
            \fi
       \fi
331
332 }
333
    auxiliary code:
334 \ensuremath{\def\@Space{}}
335 \def\trimstring#1{
       \edef\pathsuris@trim@temp{#1}
336
        \IfBeginWith\pathsuris@trim@temp\@Space{
337
            \StrGobbleLeft\pathsuris@trim@temp1[#1]
338
            \trimstring{#1}
339
       }{
340
            \IfEndWith\pathsuris@trim@temp\@Space{
341
                \StrGobbleRight\pathsuris@trim@temp1[#1]
342
                \trimstring{#1}
343
344
           }{
                \edef#1{\pathsuris@trim@temp}
345
```

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

```
\edef\windows@path{\expandafter\@gobble\windows@path}
396
       \ifx\windows@path\@empty\else
397
            \verb|\expandafter\path@windows@loop\windows@path\windows@path@end| \\
398
399
       \let#1\windows@temp
400
401 }
402 \end{2mm} windows @loop #1#2 \end{2mm}
       \def\windows@temp@b{#2}
403
       \ifx\windows@temp@b\@empty
404
            \def\windows@continue{}
405
       \else
406
            \def\windows@continue{\path@windows@loop#2\windows@path@end}
407
       \fi
408
       \if@windowstopath@inpath@
409
            \int ifx#1/
410
                \edef\windows@temp\@BackSlash}
411
            \else
412
                \edef\windows@temp{\windows@temp#1}
413
414
            \fi
415
       \else
            \int ifx#1/
416
                \edef\windows@temp{\windows@temp:\@BackSlash}
417
                \@windowstopath@inpath@true
418
            \else
419
                \edef\windows@temp{\windows@temp#1}
420
421
            \fi
422
       \fi
423
       \windows@continue
424 }
425
426 \langle /package \rangle
```

# Change History

v1.0	v1.1
	General: adding \baseURI from
General: First Version with	omdoc.sty and \defpath from
Documentation 1	modules.stv 1

## 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.