The uniquecounter package

Heiko Oberdiek <heiko.oberdiek at googlemail.com>

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Abstract

This package provides a kind of counter that provides unique number values. Several counters can be created by different names. The numeric values are not limited.

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1 Documentation

\UniqueCounterNew $\{\langle name \rangle\}$

Macro \UniqueCounterNew creates a new unique counter $\langle name \rangle$. An error is thrown, if the counter already exists.

```
\UniqueCounterCall \{\langle name \rangle\}\ \{\langle code \rangle\}
```

Macro \UniqueCounterCall calls the given $\langle code \rangle$ with a new value of counter $\langle name \rangle$ as argument.

\UniqueCounterIncrement $\{\langle name \rangle\}$

Macro \UniqueCounterIncrement generates a new value for the counter $\langle name \rangle$ by incrementing by one (globally).

\UniqueCounterGet $\{\langle name \rangle\}$

Expandable macro \UniqueCounterGet returns the current value of counter $\langle name \rangle$

1.1 Example

```
1 (*example)
2 \documentclass{minimal}
3 \usepackage{uniquecounter}
4 \UniqueCounterNew{anchor}
5 \mbox{ \mbox{$\mbox{$\mbox{$}$}}} 1
6 \newcommand*{\DefNewAnchorName}[2]{%
    % #1 is unique counter value
    % #2 is name of anchor
9
    \ensuremath{\mbox{Qnamedef{anchor@#2}{a#1}}\%
10 }
11 \newcommand*{\NewAnchorName}[1]{%
12
    \UniqueCounterCall{anchor}\DefNewAnchorName{#1}%
13 }
14 \newcommand*{\PrintAnchorName}[1]{%
    \@nameuse{anchor@#1}%
15
16 }
17 \begin{document}
    \NewAnchorName{Top}%
18
    \NewAnchorName{Left}%
19
    \noindent
   Top: \PrintAnchorName{Top}\\%
22 Left: \PrintAnchorName{Left}%
23 \end{document}
24 (/example)
```

2 Implementation

```
25 (*package)
```

2.1 Reload check and package identification

Reload check, especially if the package is not used with LATEX.

```
26 \begingroup\catcode61\catcode48\catcode32=10\relax%
    \catcode13=5 % ^^M
27
    \endlinechar=13 %
28
    \catcode35=6 % #
29
    \catcode39=12 % '
30
    \colone{1} \catcode44=12 % ,
31
    \catcode45=12 % -
32
33
    \catcode46=12 % .
    \catcode58=12 % :
34
    \colored{catcode64=11 \% 0}
35
    \catcode123=1 % {
36
    \catcode125=2 % }
37
```

```
\expandafter\let\expandafter\x\csname ver@uniquecounter.sty\endcsname
38
     \ifx\x\relax % plain-TeX, first loading
39
     \else
40
       \def\empty{}%
41
42
       \ifx\x\empty % LaTeX, first loading,
43
         % variable is initialized, but \ProvidesPackage not yet seen
44
45
         \expandafter\ifx\csname PackageInfo\endcsname\relax
           \def\x#1#2{%}
46
             47
           }%
48
         \else
49
           50
51
         \x{uniquecounter}{The package is already loaded}%
52
53
         \aftergroup\endinput
54
       \fi
     \fi
55
56 \endgroup%
Package identification:
57 \begingroup\catcode61\catcode48\catcode32=10\relax%
     \catcode13=5 % ^^M
    \endlinechar=13 %
59
    \catcode35=6 % #
60
     \catcode39=12 % '
61
    \catcode40=12 % (
62
    \catcode41=12 % )
63
     \catcode44=12 % ,
64
65
     \catcode45=12 % -
66
     \colone{1} \catcode46=12 % .
     \catcode47=12 % /
68
     \catcode58=12 % :
     \catcode64=11 % @
69
     \catcode91=12 % [
70
     \catcode93=12 % ]
71
    \catcode123=1 % {
72
     \catcode125=2 % }
73
     \expandafter\ifx\csname ProvidesPackage\endcsname\relax
74
       \def \x#1#2#3[#4] {\endgroup}
75
         \immediate\write-1{Package: #3 #4}%
76
77
         \xdef#1{#4}%
78
       }%
79
     \else
80
       \def \x#1#2[#3] {\endgroup}
81
         #2[{#3}]%
         \ifx#1\@undefined
82
           \xdef#1{#3}%
83
         \fi
84
         \ifx#1\relax
85
           \xdef#1{#3}%
86
87
         \fi
       }%
88
90 \expandafter\x\csname ver@uniquecounter.sty\endcsname
91 \ProvidesPackage{uniquecounter}%
     [2011/01/30 v1.2 Provide unlimited unique counter (HO)]%
2.2
     Catcodes
93 \begingroup\catcode61\catcode48\catcode32=10\relax%
     \catcode13=5 % ^^M
94
     \endlinechar=13 %
95
```

```
\catcode125=2 % }
              97
                   \catcode64=11 % @
              98
                   \def\x{\endgroup
              99
                     \expandafter\edef\csname uqc@AtEnd\endcsname{%
             100
             101
                       \endlinechar=\the\endlinechar\relax
             102
                       \catcode13=\the\catcode13\relax
                       \catcode32=\the\catcode32\relax
             103
                       \catcode35=\the\catcode35\relax
             104
                       \catcode61=\the\catcode61\relax
             105
                       \catcode64=\the\catcode64\relax
             106
                       \catcode123=\the\catcode123\relax
             107
             108
                       \catcode125=\the\catcode125\relax
                     }%
             109
                  }%
             111 \x\catcode61\catcode48\catcode32=10\relax%
             112 \catcode13=5 % ^^M
             113 \endlinechar=13 %
             114 \catcode35=6 % #
             115 \catcode64=11 % @
             116 \catcode123=1 % {
             117 \catcode125=2 % }
             118 \def\TMP@EnsureCode#1#2{%
             119
                   \edef\uqc@AtEnd{%
                     \uqc@AtEnd
             120
             121
                     \catcode#1=\the\catcode#1\relax
             122
                  }%
             123
                   \catcode#1=#2\relax
             124 }
             125 \TMP@EnsureCode{33}{12}%!
             126 \TMP@EnsureCode{39}{12}%
             127 \TMP@EnsureCode{42}{12}% *
             128 \TMP@EnsureCode{43}{12}% +
             129 \TMP@EnsureCode{46}{12}% .
             130 \TMP@EnsureCode{47}{12}% /
             131 \TMP@EnsureCode{91}{12}% [
             132 \TMP@EnsureCode{93}{12}% ]
             133 \TMP@EnsureCode{96}{12}%
             134 \edef\uqc@AtEnd{\uqc@AtEnd\noexpand\endinput}
             135 \begingroup\expandafter\expandafter\expandafter\endgroup
             136 \expandafter\ifx\csname RequirePackage\endcsname\relax
             137
                   \def\TMP@RequirePackage#1[#2]{%
                     \begingroup\expandafter\expandafter\expandafter\endgroup
             138
                     \expandafter\ifx\csname ver@#1.sty\endcsname\relax
             139
                       \input #1.sty\relax
             140
                     \fi
             141
             142
                   \TMP@RequirePackage{bigintcalc}[2007/11/11]%
             143
                   \TMP@RequirePackage{infwarerr}[2007/09/09]%
             144
             146
                   \RequirePackage{bigintcalc}[2007/11/11]%
             147
                   \RequirePackage{infwarerr}[2007/09/09]%
             148 \fi
\uqc@IncNum
             149 \begingroup\expandafter\expandafter\expandafter\endgroup
             150 \expandafter\ifx\csname numexpr\endcsname\relax
             151
                   \def\uqc@IncNum#1{%
             152
                     \begingroup
                       \count@=\csname uqc@cnt@#1\endcsname\relax
             153
                       \advance\count@\@ne
             154
                       \expandafter\xdef\csname uqc@cnt@#1\endcsname{%
             155
                         \number\count@
             156
```

\catcode123=1 % {

96

```
}%
                                   \ifnum\count@=2147483647 %
                          158
                                     \global\expandafter\let\csname uqc@inc@#1\endcsname
                          159
                          160
                                     \uqc@IncBig
                          161
                          162
                                 \endgroup
                          163
                              }%
                          164 \else
                               \def\uqc@IncNum#1{%
                         165
                                 \expandafter\xdef\csname uqc@cnt@#1\endcsname{%
                          166
                                   \number\numexpr\csname uqc@cnt@#1\endcsname+1%
                          167
                                 }%
                         168
                                 \ifnum\csname uqc@cnt@#1\endcsname=2147483647 %
                          169
                                   \global\expandafter\let\csname uqc@inc@#1\endcsname
                         170
                                   \uqc@IncBig
                         171
                          172
                         173
                              }%
                         174 \fi
            \uqc@IncBig
                         175 \def\uqc@IncBig#1{%
                               \expandafter\xdef\csname uqc@cnt@#1\endcsname{%
                         177
                                 \expandafter\expandafter\expandafter
                         178
                                 \BigIntCalcInc\csname uqc@cnt@#1\endcsname!%
                         179
                              }%
                         180 }
               \uqc@Def
                          181 \begingroup\expandafter\expandafter\expandafter\endgroup
                          182 \expandafter\ifx\csname newcommand\endcsname\relax
                               \def \uqc@Def#1{\def#1##1}%
                         184 \else
                               185
                          186 \fi
      \UniqueCounterNew
                          187 \uqc@Def\UniqueCounterNew{%
                         188
                               \expandafter\ifx\csname uqc@cnt@#1\endcsname\relax
                         189
                                 \expandafter\xdef\csname uqc@cnt@#1\endcsname{0}%
                                 \global\expandafter\let\csname uqc@inc@#1\endcsname\uqc@IncNum
                         190
                                 \@PackageInfo{uniquecounter}{New unique counter `#1'}%
                         191
                          192
                               \else
                          193
                                 \@PackageError{uniquecounter}{Unique counter `#1' is already defined}\@ehc
                          194
                               \fi
                          195 }
\UniqueCounterIncrement
                          196 \uqc@Def\UniqueCounterIncrement{%
                               \expandafter\ifx\csname uqc@cnt@#1\endcsname\relax
                          197
                          198
                                 \@PackageError{uniquecounter}{Unique counter `#1' is undefined}\@ehc
                          199
                                 \csname uqc@inc@#1\endcsname{#1}%
                         200
                          201
                               \fi
                         202 }
      \UniqueCounterGet
                         203 \uqc@Def\UniqueCounterGet{%
                               \csname uqc@cnt@#1\endcsname
                          205 }
     \UniqueCounterCall
                         206 \uqc@Def\UniqueCounterCall{%
```

157

```
\expandafter\ifx\csname uqc@cnt@#1\endcsname\relax
          207
                 \@PackageError{uniquecounter}{Unique counter `#1' is undefined}\@ehc
          208
                 \expandafter\uqc@Call\expandafter0%
          209
               \else
          210
          211
                 \UniqueCounterIncrement{#1}%
          212
                 \expandafter\expandafter\expandafter\uqc@Call
          213
                 \expandafter\expandafter\expandafter{%
          214
                   \csname uqc@cnt@#1\expandafter\endcsname\expandafter
          215
               \fi
          216
          217 }
\uqc@Call
          219 \uqc@AtEnd%
          220 (/package)
```

3 Test

3.1 Catcode checks for loading

```
221 (*test1)
222 \catcode`\{=1 %
223 \catcode`\}=2 %
224 \catcode`\#=6 %
225 \catcode`\@=11 %
226 \expandafter\ifx\csname count@\endcsname\relax
227 \countdef\count@=255 %
228 \fi
229 \expandafter\ifx\csname @gobble\endcsname\relax
230 \leq \sqrt{\frac{9}{230}}
231 \fi
232 \expandafter\ifx\csname @firstofone\endcsname\relax
233 \long\def\@firstofone#1{#1}%
234 \fi
235 \expandafter\ifx\csname loop\endcsname\relax
236 \expandafter\@firstofone
237 \else
                   \expandafter\@gobble
238
239 \fi
240 {%
241
                     \def\loop#1\repeat{%
242
                            \def\body{#1}%
243
                            \iterate
                   }%
244
                    \def\iterate{%
245
246
                            \body
                                     \let\next\iterate
247
                             \else
248
                                     \let\next\relax
249
250
                             \fi
251
                             \next
                    }%
252
                     \let\repeat=\fi
253
254 }%
255 \ensuremath{\mbox{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{$\sim$}}}\ensuremath{\mbox{\mbox{
256 \count@=0 %
257 \loop
                    \edef\RestoreCatcodes{%
258
                             \RestoreCatcodes
259
```

```
\catcode\the\count@=\the\catcode\count@\relax
260
261
262 \ifnum\count@<255 %
     \advance\count@ 1 %
264 \repeat
265
266 \ensuremath{\mbox{\sc NangeCatcodeInvalid}\#1\#2\%}
267
     \count@=#1\relax
268
     \loop
       \catcode\count@=15 %
269
     \ifnum\count@<#2\relax
270
       \advance\count@ 1 %
271
272
     \repeat
273 }
274 \def\RangeCatcodeCheck#1#2#3{%
275
     \count@=#1\relax
276
     \loop
       \ifnum#3=\catcode\count@
277
       \else
278
279
          \errmessage{%
           Character \the\count@\space
280
           with wrong catcode \the\catcode\count@\space
281
           instead of \number#3%
282
283
         }%
284
285
     \ifnum\count@<#2\relax
286
       \advance\count@ 1 %
287
     \repeat
288 }
289 \def\space{ }
290 \expandafter\ifx\csname LoadCommand\endcsname\relax
291
     \def\LoadCommand{\input uniquecounter.sty\relax}%
292 \fi
293 \left\{ \text{Test} \right\}
     \RangeCatcodeInvalid{0}{47}%
294
295
     \RangeCatcodeInvalid{58}{64}%
296
     \RangeCatcodeInvalid{91}{96}%
297
     \RangeCatcodeInvalid{123}{255}%
298
     \catcode`\@=12 %
     \color= \color= 0 %
299
     \catcode`\%=14 %
300
     \LoadCommand
301
     302
303
     \RangeCatcodeCheck{37}{37}{14}%
304
     \RangeCatcodeCheck{38}{47}{15}%
305
     \RangeCatcodeCheck{48}{57}{12}%
306
     \RangeCatcodeCheck{58}{63}{15}%
307
     \RangeCatcodeCheck{64}{64}{12}%
308
     \RangeCatcodeCheck{65}{90}{11}%
309
     \RangeCatcodeCheck{91}{91}{15}%
     \RangeCatcodeCheck{92}{92}{0}%
310
311
     \RangeCatcodeCheck{93}{96}{15}%
     \RangeCatcodeCheck{97}{122}{11}%
312
313
     \RangeCatcodeCheck{123}{255}{15}%
314
     \RestoreCatcodes
315 }
316 \Test
317 \csname @@end\endcsname
318 \end
319 (/test1)
```

3.2 Macro tests

3.2.1 Test with LATEX

```
320 (*test2)
321 \NeedsTeXFormat{LaTeX2e}
322 \setminus nofiles
323 \documentclass{minimal}
324 \text{ } \text{usepackage}\{\text{uniquecounter}\}[2011/01/30]
325 \slashed usepackage{qstest}
326 \IncludeTests{*}
327 \LogTests\{log\}\{*\}\{*\}
328
329 \newcommand*{\CheckValue}[2]{%
     \Expect*{#2}*{\UniqueCounterGet{#1}}%
331 }
332 \newcommand*{\CheckSpace}[1]{%
333
     \sbox0{#1}%
     334
335 }
336
337 \begin{qstest}{creation}{creation}
     \CheckSpace{%
338
       \UniqueCounterNew{test}%
339
340
     \CheckValue{test}{0}%
341
342 \end{qstest}
343
344 \verb|\begin{qstest}{increment}{increment}|
345
     \CheckSpace{%
       \UniqueCounterIncrement{test}%
346
     }%
347
     \CheckValue{test}{1}%
348
     \makeatletter
349
     \def\uqc@cnt@test{2147483645}%
350
     \CheckValue{test}{2147483645}%
351
352
     \CheckSpace{%
353
       \UniqueCounterIncrement{test}%
     }%
354
     \CheckValue{test}{2147483646}%
355
     \CheckSpace{%
356
       \UniqueCounterIncrement{test}%
357
     }%
358
     \Expect{true}*{\ifx\uqc@inc\uqc@NumInc true\else false\fi}%
359
     \CheckValue{test}{2147483647}%
360
     \CheckSpace{%
361
       \UniqueCounterIncrement{test}%
362
363
     \CheckValue{test}{2147483648}%
364
365
     \CheckSpace{%
       \UniqueCounterIncrement{test}%
366
367
     \CheckValue{test}{2147483649}%
368
369 \end{qstest}
370
371 \begin{qstest}{call}{call}
     \def\CheckCall#1#2{%
372
373
       \Expect{#1}{#2}%
374
375
     \CheckSpace{%
       \UniqueCounterNew{foo}%
376
377
     \CheckValue{foo}{0}%
378
```

```
\def\Check#1{%
379
       \CheckSpace{%
380
         \UniqueCounterCall{foo}{\CheckCall}{#1}%
381
382
383
       \CheckValue{foo}{#1}%
384
     }%
385
     \Check{1}%
     \Check{2}%
386
     \Check{3}%
387
     \Check{4}%
388
     \Check{5}%
389
    \Check{6}%
390
    \Check{7}%
391
    \Check{8}%
392
    \Check{9}%
393
394
    \Check{10}%
395
    \Check{11}%
    \Check{12}%
396
397 \end{qstest}
398
399 \csname @@end\endcsname
400 (/test2)
3.2.2 Test with plain-T<sub>E</sub>X
401 (*test3)
402 \input uniquecounter.sty\relax
403 \catcode`\@=11 %
404 \ensuremath{\mbox{def}\mbox{CheckValue}#1#2{\%}}
405
     \begingroup
       \texttt{\A\{\#2\}\%}
406
       \edef\B{\UniqueCounterGet{#1}}%
407
408
       \inf A B
409
       \else
         \@PackageError{TEST}{Failed: \A\space<> \B}\@ehc
410
       \fi
411
412
     \endgroup
413 }
414 \def\CheckSpace#1{%
415
     \start
     \index(0) = \z0
416
417
     \else
       \@PackageError{TEST}{Failed: 0.0pt <> \the\wd0}\@ehc
418
419
     \fi
420 }
422 \begingroup
423
     \CheckSpace{%
424
       \UniqueCounterNew{test}%
425
426
     \CheckValue{test}{0}%
427 \setminus endgroup
428
429 \begingroup
430
     \CheckSpace{%
       \UniqueCounterIncrement{test}%
431
432
433
     \CheckValue{test}{1}%
     434
435
     436
     \CheckSpace{%
       \UniqueCounterIncrement{test}%
437
438
     \CheckValue{test}{2147483646}%
439
```

```
\CheckSpace{%
440
       \UniqueCounterIncrement{test}%
441
442
     \ifx\uqc@inc\uqc@NumInc
443
444
445
       \@PackageError{TEST}{Failed: wrong inc function}\@ehc
446
     \fi
     \CheckValue{test}{2147483647}%
447
448
     \CheckSpace{%
       \UniqueCounterIncrement{test}%
449
     }%
450
     \CheckValue{test}{2147483648}%
451
     \CheckSpace{%
452
        \UniqueCounterIncrement{test}%
453
454
     \CheckValue{test}{2147483649}%
455
456 \endgroup
457 \begingroup
     \def\CheckCall#1#2{%
458
459
        \begingroup
460
          \def\A{#1}%
          \left( \frac{B}{\#2} \right)
461
          \int A B
462
463
          \else
            \@PackageError{TEST}{Failed: \A\space <> \B}\@ehc
464
465
466
       \endgroup
467
     }%
468
     \CheckSpace{%
       \UniqueCounterNew{foo}%
469
     }%
470
     \CheckValue{foo}{0}%
471
472
     \CheckSpace{%
       \UniqueCounterCall{foo}{\CheckCall}{1}%
473
474
475
     \CheckSpace{%
476
       \UniqueCounterCall{foo}{\CheckCall}{2}%
477
478
     \CheckValue{foo}{2}%
479 \endgroup
480 \csname @@end\endcsname\end
481 (/test3)
```

4 Installation

4.1 Download

Package. This package is available on CTAN¹:

CTAN:macros/latex/contrib/oberdiek/uniquecounter.dtx The source file.

CTAN:macros/latex/contrib/oberdiek/uniquecounter.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 TEX Files" (CTAN:tds/tds.pdf). Directories with texmf in their name are usually organized this way.

¹ftp://ftp.ctan.org/tex-archive/

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
```

Script installation. Check the directory TDS:scripts/oberdiek/ for scripts that need further installation steps. Package attachfile2 comes with the Perl script pdfatfi.pl that should be installed in such a way that it can be called as pdfatfi. Example (linux):

```
chmod +x scripts/oberdiek/pdfatfi.pl
cp scripts/oberdiek/pdfatfi.pl /usr/local/bin/
```

4.3 Package installation

Unpacking. The .dtx file is a self-extracting docstrip archive. The files are extracted by running the .dtx through plain TFX:

```
tex uniquecounter.dtx
```

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

```
\begin{array}{lll} \mbox{uniquecounter.sty} & \rightarrow \mbox{tex/generic/oberdiek/uniquecounter.sty} \\ \mbox{uniquecounter.pdf} & \rightarrow \mbox{doc/latex/oberdiek/uniquecounter.pdf} \\ \mbox{uniquecounter-example.tex} & \rightarrow \mbox{doc/latex/oberdiek/uniquecounter-example.tex} \\ \mbox{test/uniquecounter-test1.tex} & \rightarrow \mbox{doc/latex/oberdiek/test/uniquecounter-test2.tex} \\ \mbox{test/uniquecounter-test2.tex} & \rightarrow \mbox{doc/latex/oberdiek/test/uniquecounter-test3.tex} \\ \mbox{test/uniquecounter-test3.tex} & \rightarrow \mbox{doc/latex/oberdiek/test/uniquecounter-test3.tex} \\ \mbox{uniquecounter.dtx} & \rightarrow \mbox{source/latex/oberdiek/uniquecounter.dtx} \end{array}
```

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 TEX distribution (teTEX, mikTEX, ...) relies on file name databases, you must refresh these. For example, teTEX users run texhash or mktexlsr.

4.5 Some details for the interested

Attached source. The PDF documentation on CTAN also includes the .dtx source file. It can be extracted by AcrobatReader 6 or higher. Another option is pdftk, e.g. unpack the file into the current directory:

```
pdftk uniquecounter.pdf unpack_files output .
```

Unpacking with LATEX. The .dtx chooses its action depending on the format:

plain T_EX: Run docstrip and extract the files.

LATEX: Generate the documentation.

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

```
latex \let\install=y\input{uniquecounter.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 pdfIATEX:

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

5 Catalogue

The following XML file can be used as source for the TeX Catalogue. The elements caption and description are imported from the original XML file from the Catalogue. The name of the XML file in the Catalogue is uniquecounter.xml.

```
482 (*catalogue)
483 <?xml version='1.0' encoding='us-ascii'?>
484 <!DOCTYPE entry SYSTEM 'catalogue.dtd'>
485 <entry datestamp='$Date$' modifier='$Author$' id='uniquecounter'>
    <name>uniquecounter</name>
     <caption>Provides unlimited unique counter.</caption>
487
    <authorref id='auth:oberdiek'/>
488
    <copyright owner='Heiko Oberdiek' year='2009,2011'/>
489
490
    <license type='lppl1.3'/>
     <version number='1.2'/>
491
     <description>
492
       This package provides a kind of counter that provides unique
493
       number values. Several counters can be created with different names.
494
495
       The numeric values are not limited.
496
497
       The package is part of the <xref refid='oberdiek'>oberdiek</xref>
498
       bundle.
499
     </description>
     <documentation details='Package documentation'</pre>
500
         href='ctan:/macros/latex/contrib/oberdiek/uniquecounter.pdf'/>
501
    <ctan file='true' path='/macros/latex/contrib/oberdiek/uniquecounter.dtx'/>
502
     <miktex location='oberdiek'/>
503
    <texlive location='oberdiek'/>
504
    <install path='/macros/latex/contrib/oberdiek/oberdiek.tds.zip'/>
506 </entry>
507 (/catalogue)
```

6 History

[2009/09/11 v1.0]

• First public version.

[2009/12/18 v1.1]

• Bug fix in \UniqueCounterCall for values > 9 (bug report of Lev Bishop).

[2011/01/30 v1.2]

Already loaded package files are not input in plain T_EX.

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