## The catchfile package

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#### Abstract

This package catches the contents of a file and puts it in a macro. It requires  $\varepsilon$ -TEX. Both LATEX and plain TEX are supported.

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 $<sup>{\</sup>rm *Please\ report\ any\ issues\ at\ https://github.com/ho-tex/oberdiek/issues}$ 

### 1 Documentation

The package relies on  $\varepsilon$ -TeX's \everyeof. Otherwise it aborts with an error message.

```
\CatchFileDef \{\langle cmd \rangle\}\ \{\langle file\ name \rangle\}\ \{\langle setup \rangle\}\\CatchFileEdef \{\langle cmd \rangle\}\ \{\langle file\ name \rangle\}\ \{\langle setup \rangle\}\
```

Macro  $\langle cmd \rangle$  is defined with the contents of file  $\langle file\ name \rangle$ . \CatchFileDef uses \def, \CatchFileEdef \edef for the definition. Additional setup code for setting catcodes or treatment of line ends can be given in code  $\langle setup \rangle$ . See the test files for an example.

## 2 Implementation

```
_1 (*package)
```

#### 2.1 Reload check and package identification

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

```
2 \begingroup\catcode61\catcode48\catcode32=10\relax%
   \catcode13=5 % ^^M
    \endlinechar=13 %
    \catcode35=6 % #
 5
    \catcode39=12 % '
 6
    \catcode44=12 % ,
 7
    \catcode45=12 % -
 8
    \catcode46=12 % .
 9
    \catcode58=12 % :
 10
 11 \catcode64=11 % @
 12 \catcode123=1 % {
 13 \catcode125=2 % }
 14 \expandafter\let\expandafter\x\csname ver@catchfile.sty\endcsname
    \ifx\x\relax % plain-TeX, first loading
 15
 16
      \def\ence{2}\%
 17
      \ifx\x\empty % LaTeX, first loading,
 18
       % variable is initialized, but \ProvidesPackage not yet seen
 19
 20
 21
       \expandafter\ifx\csname PackageInfo\endcsname\relax
 ^{22}
 23
          \immediate\write-1{Package #1 Info: #2.}%
 ^{24}
        }%
 25
       \else
         \def\x#1#2{\PackageInfo{#1}{#2, stopped}}%
 26
 27
       \x{catchfile}{The package is already loaded}%
 28
       \aftergroup\endinput
 29
30
      \fi
    \fi
31
32 \endgroup%
Package identification:
 33 \begingroup\catcode61\catcode48\catcode32=10\relax%
    \catcode13=5 % ^^M
34
35 \endlinechar=13 %
36 \catcode35=6 % #
37 \catcode39=12 % '
38 \catcode40=12 % (
39 \ \text{catcode41=12 \%})
 40 \catcode44=12 %,
```

```
\catcode45=12 % -
41
   \catcode46=12 % .
42
   \catcode47=12 % /
43
   \catcode58=12 % :
   \catcode64=11 % @
45
46
   \catcode91=12 % [
47
   \catcode93=12 % ]
   \catcode123=1 % {
48
   \catcode125=2 % }
49
   \expandafter\ifx\csname ProvidesPackage\endcsname\relax
50
     \def \x#1#2#3[#4]{\endgroup}
51
      \immediate\write-1{Package: #3 #4}%
52
      \xdef#1{#4}%
53
     }%
54
55
   \else
     \def\x#1#2[#3]{\endgroup}
56
57
      #2[{#3}]%
      \inf #1\
58
        \xdef#1{#3}%
59
60
      ۱fi
      \inf #1 \operatorname{lax}
61
        \xdef#1{#3}%
62
63
     }%
64
   \fi
65
66 \expandafter\x\csname ver@catchfile.sty\endcsname
67 \ProvidesPackage{catchfile}%
   [2016/05/16 v1.7 Catch the contents of a file (HO)]%
```

#### 2.2 Catcodes

```
69 \begingroup\catcode61\catcode48\catcode32=10\relax%
 70 \catcode13=5 % ^^M
                              \endlinechar=13 %
 71
 72
                              \catcode123=1 % {
 73
                            \catcode125=2 % }
                              \catcode64=11 % @
 74
                               \def\x{\endgroup
 75
                                           \expandafter\edef\csname CatchFile@AtEnd\endcsname{%
 76
                                                      \endlinechar=\the\endlinechar\relax
 77
                                                      \color=\the\color=13\relax
 78
 79
                                                      \verb|\catcode32=\\ the \verb|\catcode32\\ relax|
 80
                                                      \color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=
 81
                                                      \colored{catcode61=\locatede61\relax}
                                                      \colored{catcode64} \to \colored{catcode64} \
 82
                                                      \color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=
 83
                                                      \verb|\catcode| 125 = \verb|\the| catcode| 125 \verb|\relax|
 84
                                         }%
 85
 86 }%
 87 \x\catcode61\catcode48\catcode32=10\relax%
 88 \catcode13=5 % ^^M
 89 \endlinechar=13 %
 90 \catcode35=6 % #
 91 \catcode64=11 % @
 92 \cdot 2123=1 \%  {
93 \catcode125=2 % }
 94 \def\TMP@EnsureCode#1#2{%
                               \edef\CatchFile@AtEnd{%
 95
                                          \CatchFile@AtEnd
 96
 97
                                           \color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\t
 98 }%
                         \color= 1=\#2\relax
```

```
102 \TMP@EnsureCode{44}{12}%,
103 \TMP@EnsureCode{45}{12}% -
104 \TMP@EnsureCode{46}{12}%.
105 \TMP@EnsureCode{47}{12}% /
106 \TMP@EnsureCode{91}{12}% [
107 \TMP@EnsureCode\{93\}\{12\}\% ]
108 \TMP@EnsureCode{96}{12}%
109 \edef\CatchFile@AtEnd{\CatchFile@AtEnd\noexpand\endinput}
      Preparations
110 \begingroup\expandafter\expandafter\expandafter\endgroup
111 \expandafter\ifx\csname RequirePackage\endcsname\relax
    \input infwarerr.sty\relax
113 \input ltxcmds.sty\relax
114 \else
    \RequirePackage{infwarerr}[2007/09/09]%
116
    \RequirePackage{ltxcmds}[2010/03/09]%
117 \fi
   Check for \varepsilon-T<sub>E</sub>X's \everyeof.
118 \begingroup
    \escapechar=92\relax
119
    \edef\TestString{\string\everyeof}%
120
    \edef\TestMeaning{\meaning\everyeof}%
121
    \ifx\TestString\TestMeaning
122
    \else
123
124
      \@PackageError{catchfile}{%
```

Cannot find e-TeX's \string\everyeof,\MessageBreak

#### 2.4 Looking for primitive \input

package loading is aborted%

\expandafter\CatchFile@AtEnd

\CatchFile@Input

100 }

 $\frac{125}{126}$ 

127

128

129

130

}\@ehd

\fi%

131 \endgroup

\endgroup

101 \TMP@EnsureCode{39}{12}% '

The package needs the expandable primitive \input. However there are formats that redefine it. For example, LATEX's \input is not expandable, but it stores the primitive in \@@input. The third possibility is \pdfprimitive, introduced in pdfTEX 1.40.0.

Thus we try to find the primitive and store it in \CatchFile@Input. If it is used, it must be expanded twice (because of the solution with \pdfprimitive).

```
132 \begingroup
    \def\Check#1#2#3#4\endgroup{%
133
      \edef\TestString{\string#1}%
134
      \edef\TestMeaning{\meaning#2}%
135
      \ifx\TestString\TestMeaning
136
       \endgroup
137
138
       \let\CatchFile@Primitive#2%
139
       \def\CatchFile@Input{\CatchFile@Primitive#3}%
140
      \else
       #4\endgroup
141
      \fi
142
    }%
143
    \Check\input\input{}%
144
    \Check\input\@@input{}%
145
    \Check\pdfprimitive\pdfprimitive\input
    \@PackageError{%
147
      Cannot find primitive \string\input,\MessageBreak
148
      package loading is aborted%
149
```

```
150 }\@ehd
151 \csname endgroup\endcsname
152 \CatchFile@AtEnd%
153 \endgroup
```

#### 2.5 Input file check

#### \CatchFile@CheckFileExists

\CatchFile@NotFound

```
154 \end{minipage} 
155 \expandafter\ifx\csname IfFileExists\endcsname\relax
                   \input pdftexcmds.sty\relax
                   \begingroup\expandafter\expandafter\expandafter\endgroup
157
                   \expandafter\ifx\csname pdf@filesize\endcsname\relax
158
                         \def\CatchFile@CheckFileExists#1{%
159
160
                               \expandafter\ifx\csname @inputcheck\endcsname\relax
161
                                    \csname newread\endcsname\@inputcheck
162
                              \openin\@inputcheck#1\relax
163
                               \expandafter\closein\expandafter\@inputcheck
164
                               \ifeof\@inputcheck
165
                                    \let\CatchFile@File\relax
166
167
168
                                    \def\CatchFile@File{#1}%
169
170
                        }%
171
                   \else
                         \def\CatchFile@CheckFileExists#1{%
172
                               \expandafter\expandafter\expandafter\ifx
173
                              \verb|\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\expandafter\e
174
                                    \let\CatchFile@File\relax
175
                              \else
176
                                    \def\CatchFile@File{#1}%
177
                              \fi
178
                       }%
179
                  \fi
180
181 \else
182
                   \def\CatchFile@CheckFileExists#1{%
183
                         \IfFileExists{#1}{%
                              \expandafter\CatchFile@DefFile\@filef@und\@nil
184
                               \begingroup\expandafter\expandafter\expandafter\endgroup
185
                               \expandafter\ifx\csname @addtofilelist\endcsname\relax
186
                               \else
187
                                    \@addtofilelist\CatchFile@File
188
189
190
                              \let\CatchFile@File\relax
191
192
193
                   \def\CatchFile@DefFile#1 \@nil{%
194
                       \def\CatchFile@File{#1}%
195
196 }%
197 \fi
198 \def\CatchFile@NotFound#1#2{%
199 \def#1{}%
                  \@PackageError{catchfile}{%
200
                       File `#2' not found%
201
202 }\@ehc
203 }
```

#### 2.6 Catch file contents

```
204 \ltx@IfUndefined{RequirePackage}{%
                205 \input etexcmds.sty\relax
                206 }{%
                    \RequirePackage{etexcmds}[2010/01/28]%
                207
                208 }
\CatchFileEdef
                209 \long\def\CatchFileEdef#1#2#3{%
                210 \CatchFile@CheckFileExists{#2}%
                211 \ifx\CatchFile@File\relax
                212
                     \CatchFile@NotFound{#1}{#2}%
                213 \else
                214
                      \begingroup
                       \everyeof{\noexpand}%
                215
                       #3%
                216
                       \xdef\CatchFile@Contents{\CatchFile@Input\CatchFile@File\space}%
                217
                218
                      \endgroup
                219
                      \let#1\CatchFile@Contents
                220 \fi
                221 }
 \CatchFileDef
                222 \long\def\CatchFileDef#1#2#3{\%}
                    \CatchFile@CheckFileExists{#2}%
                224
                    \ifx\CatchFile@File\relax
                225
                      \CatchFile@NotFound{#1}{#2}%
                226
                    \else
                227
                      \begingroup
                       \everyeof\expandafter{%
                228
                         \CatchFile@EOF
                229
                         \expandafter\CatchFile@Finish
                230
                         \noexpand
                231
                       1%
                232
                       \ltx@ifundefined{etex@unexpanded}{%
                233
                         \expandafter\long\expandafter\def\expandafter\CatchFile@Do
                234
                            \expandafter##\expandafter1\CatchFile@EOF{%
                235
                          \toks\ltx@zero{##1}%
                236
                237
                          \xdef\CatchFile@gtemp{\the\toks\ltx@zero}%
                238
                          \def\CatchFile@Finish{%
                239
                            \endgroup
                240
                            \let#1\CatchFile@gtemp
                            \global\let\CatchFile@gtemp\ltx@undefined
                241
                          }%
                242
                         }%
                243
                       }{%
                244
                         \expandafter\long\expandafter\def\expandafter\CatchFile@Do
                245
                            \expandafter##\expandafter1\CatchFile@EOF{%
                246
                          \edef\CatchFile@Finish{%
                247
                248
                            \endgroup
                249
                            \etex@unexpanded{%
                             \ensuremath{\texttt{def#1{\text{unexpanded{\##1}}}}\%
                250
                           }%
                251
                          }%
                252
                        }%
                253
                       }%
                254
                       #3\relax
                255
                256
                      \expandafter\expandafter\CatchFile@Do
                      \CatchFile@Input\CatchFile@File\relax
                257
                258
                    \fi
                259 }
```

 $\$  after #3 was added to make it more robust in case the user uses something like

\CatchFileDef{\content}{\jobname.tt}{\endlinechar=-1}

that expands the following  $\ensuremath{\verb|}$  after #3 prematurely (contribution of Martin Scharrer).

\CatchFile@EOF If the file is read the catcode mappings are fixed. This means that the same character cannot occur inside the file with different catcodes. Thus we use as end of file marker the at sign twice with different catcodes.

```
260 \begingroup
261 \lccode65=64 % lowercase('A') = '@'
262 \lccode66=64 % lowercase('B') = '@'
263 \catcode65=8 % catcode('A') = subscript
264 \catcode66=3 % catcode('B') = math shift
265 \lowercase{\endgroup
266 \def\CatchFile@EOF{AB}%
267 }
268 \CatchFile@AtEnd%
269 \/package\
```

#### 3 Test

#### 3.1 Catcode checks for loading

```
270 (*test1)
271 \color= 1\%
272 \catcode`\}=2 %
273 \catcode`\#=6 %
274 \catcode`\@=11 %
275 \expandafter\ifx\csname count@\endcsname\relax
276 \countdef\count@=255 %
277 \fi
278 \expandafter\ifx\csname @gobble\endcsname\relax
279 \long\def\@gobble#1{}\%
280 \fi
281 \exp and after ifx \csname 
282 \long\def\@firstofone#1{#1}%
283 \fi
284 \expandafter\ifx\csname loop\endcsname\relax
285
                 \expandafter\@firstofone
286 \else
287
                 \expandafter\@gobble
288 \fi
289 {%
                  290
                       \def\body{#1}%
291
                       \iterate
292
293 }%
                  \def\iterate{%
294
                       \body
295
                             \let\next\iterate
296
297
                        \else
298
                             \let\next\relax
299
                        \fi
300
                       \next
                 }%
301
302 \left| \text{let}\right| = \fi
303 }%
304 \def\RestoreCatcodes{}
```

```
305 \count@=0 %
306 \loop
    \edef\RestoreCatcodes{%
307
     \RestoreCatcodes
      \catcode\the\count@=\the\catcode\count@\relax
309
310 }%
311 \ifnum\count@<255 %
312 \advance\count@ 1 %
313 \repeat
314
315 \def\RangeCatcodeInvalid#1#2{\%
    \count@=#1\relax
316
317
    \loop
     \catcode\count@=15 %
318
    \index(0) = \frac{2\pi}{2}
319
     \advance\count@ 1 %
320
321
    \repeat
322 }
323 \def\RangeCatcodeCheck#1#2#3{\%
    \c =#1\relax
324
325
    \loop
      \ifnum#3=\catcode\count@
326
327
      \else
       \errmessage{%
328
        Character \the\count@\space
329
330
        with wrong catcode \the\catcode\count@\space
        instead of \number#3%
331
       }%
332
333
     \fi
    \  \in \count @<#2\relax
334
     \advance\count@ 1 %
335
336
    \repeat
337 }
338 \def\space{ }
339 \expandafter\ifx\csname LoadCommand\endcsname\relax
340 \def\LoadCommand{\input catchfile.sty\relax}%
341 \fi
342 \left\{ \text{Test} \right\}
343 \RangeCatcodeInvalid{0}{47}%
344 \RangeCatcodeInvalid{58}{64}%
345 \RangeCatcodeInvalid{91}{96}%
\catcode`\@=12 %
347
348
    \color=0 \%
349
    \catcode`\%=14 %
350
    \LoadCommand
    \RangeCatcodeCheck{0}{36}{15}%
    \RangeCatcodeCheck{37}{37}{14}%
352
353
    \RangeCatcodeCheck{38}{47}{15}%
354
    \RangeCatcodeCheck{48}{57}{12}%
    \RangeCatcodeCheck{58}{63}{15}%
355
    \RangeCatcodeCheck{64}{64}{12}%
356
    \RangeCatcodeCheck{65}{90}{11}%
357
    \RangeCatcodeCheck{91}{91}{15}%
358
359
    \RangeCatcodeCheck{92}{92}{0}%
360
    \RangeCatcodeCheck{93}{96}{15}%
    \RangeCatcodeCheck{97}{122}{11}%
362
    \RangeCatcodeCheck{123}{255}{15}%
363
    \RestoreCatcodes
364 }
365 \Test
366 \csname @@end\endcsname
```

```
367 \end
368 (/test1)
3.2 LATEX
369 (*test2)
370 \NeedsTeXFormat{LaTeX2e}
371 \setminus nofiles
372 \listfiles
373 \tracingnesting=2 %
374 \ \texttt{\documentclass\{minimal\}}
375 \usepackage{catchfile}[2016/05/16]
376 \makeatletter
377 \def\mysetup{%
    \let\do\@makeother
378
379
    \dospecials
380 }
381 \def\CheckContents{%
382
    \begingroup
     \expandafter\ifx\csname contents\endcsname\relax
383
       \PackageError{TEST}{\string\contents\space is not defined}\@ehc
384
     \fi
385
    \endgroup
386
387 }
388 \def\StartDisableUnexpanded{%
    \begingroup
     \let\etex@unexpanded\@undefined
390
391 }
392 \def\StopDisableUnexpanded{%
393 \endgroup
394 }
395 \def\CheckCleanup{%
396 \begingroup
     \left( \frac{x}{\theta \right)}\%
397
     \def\y{ABC}\%
398
399
     ifx\x\y
400
     \else
       \PackageError{TEST}{\string\toks0 has changed}\@ehc
401
402
     \fi
     \fint CatchFile Quitemp \old undefined
403
404
     \else
       405
     \fi
406
407
    \endgroup
408 }
409 \def\Check{%
    \CheckContents
    \CheckCleanup
412 }
413 \makeatother
414 \begin{document}
415 \text{ } \text{toks0{ABC}}
416
417 \CatchFileDef\contents{catchfile.sty}\mysetup
418 \typeout{\meaning\contents}
419 \Check
421 \CatchFileDef\contents{catchfile.sty}{}
422 \typeout{\meaning\contents}
423 \Check
```

 $426 \StartDisableUnexpanded$ 

```
427 \CatchFileDef\contents{catchfile.sty}\mysetup
428 \typeout{\meaning\contents}
429 \Check
431 \CatchFileDef\contents{catchfile.sty}{}
432 \typeout{\meaning\contents}
433 \Check
435 \StopDisableUnexpanded
436
437 \CatchFileEdef\contents{catchfile.sty}{%
438 \mysetup
439 \def\par{^^J}%
440 \obeylines
441 }
442 \typeout{\contents}
443 \Check
445 \CatchFileEdef\contents{catchfile.sty}{\%
446 \catcode`\\=12 %
447 \catcode`\#=12 \%
448 \def\par{^^J}%
449 \obeylines
450 }
451 \typeout{\contents}
452 \Check
454 \end{document}
455 (/test2)
             plain T<sub>E</sub>X
3.3
456 (*test3)
457 \ensuremath{\mbox{\mbox{$\sim$}}} 457 \ensuremath{\mbox{\mbox{$\sim$}}} 457 \ensuremath{\mbox{\mbox{$\sim$}}} 167 \ensuremath{\mbox{$\sim$}} 167 \en
458 \newlinechar=10 \%
459 \tracingnesting=2 %
460 \input catchfile.sty\relax
461
462 \def\mysetup{%
463 \def\do##1{%
464
             \color= 12\relax
465 }%
466 \dospecials
467 }
468 \def\CheckContents{%
469 \begingroup
              \expandafter\ifx\csname contents\endcsname\relax
470
471
                  \def\space{}%
                 \errmessage{\string\contents\space is not defined.}%
472
473
474 \endgroup
475 }
476 \catcode`\@=11 %
477 \def\CheckCleanup{%
478 \begingroup
              \left( \frac{x{\theta \cdot x}}{the \cdot toks0} \right)
479
480
              \def\y{ABC}%
              \inf x y
481
482
              \else
                 \errmessage{\string\toks0 has changed}%
483
484
              \fi
485
              \ifx\CatchFile@gtemp\@undefined
486
              \else
```

```
\errmessage{Left over \string\CatchFile@gtemp}%
487
488
489 \endgroup
490 }
491 \def\Check{%
492 \CheckContents
493 \CheckCleanup
494 }
495 \def\StartDisableUnexpanded{\%
496 \begingroup
    \let\etex@unexpanded\@undefined
497
498 }
499 \def\StopDisableUnexpanded{%
500 \endgroup
501 }
502 \catcode`\@=12 %
503
504 \toks0{ABC}
505
506 \CatchFileDef\contents{catchfile.sty}\mysetup
507 \msg{\meaning\contents}
508 \Check
510 \CatchFileDef\contents{catchfile.sty}{}
511 \msg{\meaning\contents}
512 \Check
514
515 \StartDisableUnexpanded
516 \contents{catchfile.sty}\mbox{mysetup}
517 \msg{\meaning\contents}
518 \Check
520 \CatchFileDef\contents{catchfile.sty}{}
521 \msg{\meaning\contents}
522 \Check
524 \StopDisableUnexpanded
525
526 \CatchFileEdef\contents{catchfile.sty}{%
527 \mysetup
528 \def\par{^^J}%
529 \obeylines
530 }
531 \msg{\contents}
532 \Check
534 \CatchFileEdef\contents{catchfile.sty}{\%}
535 \catcode`\\=12 %
536 \catcode`\#=12 %
537 \ensuremath{\mbox{def}\par{^^J}}\%
538 \obeylines
539 }
540 \msg{\contents}
541 \Check
544 \csname @@end\endcsname
545 \setminus end
546 (/test3)
```

#### 4 Installation

#### 4.1 Download

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

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

CTAN:macros/latex/contrib/oberdiek/catchfile.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.

#### 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 catchfile.dtx
```

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

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 T<sub>E</sub>X distribution (teT<sub>E</sub>X, mikT<sub>E</sub>X, ...) relies on file name databases, you must refresh these. For example, teT<sub>E</sub>X users run texhash or mktexlsr.

<sup>&</sup>lt;sup>1</sup>http://ctan.org/pkg/catchfile

#### 4.5 Some details for the interested

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

plain T<sub>E</sub>X: 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{catchfile.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 pdfLaTeX:

```
pdflatex catchfile.dtx
makeindex -s gind.ist catchfile.idx
pdflatex catchfile.dtx
makeindex -s gind.ist catchfile.idx
pdflatex catchfile.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 catchfile.xml.

```
547 (*catalogue)
548 <?xml version='1.0' encoding='us-ascii'?>
549 <!DOCTYPE entry SYSTEM 'catalogue.dtd'>
550 <entry datestamp='$Date$' modifier='$Author$' id='catchfile'>
551 <name>catchfile</name>
    <caption>Catch an external file into a macro.
552
553 <authorref id='auth:oberdiek'/>
554 <copyright owner='Heiko Oberdiek' year='2007,2010,2011'/>
555 clicense type='lppl1.3'/>
556 <version number='1.7'/>
    <description>
557
     This package catches the contents of a file and puts it in a macro.
558
    It requires refid='etex'>e-TeX. Both
559
      <xref refid='latex'>LaTeX</xref> and
560
      <xref refid='plain'>plain TeX</xref> are supported.
561
562
      The package is part of the <xref refid='oberdiek'>oberdiek</xref>
563
564
     bundle.
565 </description>
566 <documentation details='Package documentation'
567
       href='ctan:/macros/latex/contrib/oberdiek/catchfile.pdf'/>
568 <ctan file='true' path='/macros/latex/contrib/oberdiek/catchfile.dtx'/>
569 <miktex location='oberdiek'/>
570 <texlive location='oberdiek'/>
571 <install path='/macros/latex/contrib/oberdiek/oberdiek.tds.zip'/>
572 </entry>
573 (/catalogue)
```

## 6 History

## [2007/05/30 v1.0]

• First version.

## [2007/09/09 v1.1]

• Catcode section rewritten.

## [2007/11/11 v1.2]

- Use of package pdftexcmds for LuaTeX support.

## [2010/03/01 v1.3]

• Fix for unknown \@PackageErrorNoLine.

## [2010/04/08 v1.4]

• \closein also added if \ifeof is true.

## [2010/04/28 v1.5]

- \CatchFileDef: Getting rid of warning 'end of semi simple group entered at line ... of a different file (Florent Chervet).
- \CatchFileDef: Fix for error 'Illegal parameter number in definition of ...'
   (HO) including improvement that uses \unexpanded if available (Florent Chervet).

## [2011/03/01 v1.6]

• \relax added after the setup argument of \CatchFileDef to prevent premature file reading (Martin Scharrer).

## [2016/05/16 v1.7]

• Documentation updates.

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