The grffile package*

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Abstract

The package extends the file name processing of package <code>graphics</code> to support a larger range of file names. For example, the file name may contain several dots. Or in case of pdf T_{EX} in PDF mode the file name may contain spaces.

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^{*}The documentation here describes version 1.x, accessed via <text> usepackage {grffile}[=v1], the current version 2.0 does nothing as the current graphics package handles multiple dots, spaces and UTF-8 characters in filenames

 $^{^\}dagger \text{Please}$ report any issues at https://github.com/ho-tex/grffile/issues

History
$[2004/07/18 \text{ v}0.5] \dots \dots$
$[2006/08/15 \text{ v}1.0] \dots \dots$
[2006/08/17 v1.1]
$[2006/11/30 \text{ v}1.2] \dots \dots$
$[2007/04/11 \text{ v}1.3] \dots \dots$
$[2007/06/13 \text{ v}1.4] \dots \dots$
[2007/08/16 v1.5]
[2007/11/11 v1.6]
[2007/11/24 v1.7]
[2008/08/11 v1.8]
$[2008/10/13 \text{ v}1.9] \dots \dots$
[2009/09/25 v1.10]
[2010/01/28 v1.11]
[2010/08/26 v1.12]
[2010/12/09 v1.13]
$[2011/10/04 \text{ v}1.14] \dots \dots$
[2011/10/17 v1.15]
[2012/04/05 v1.16]
[2016/05/16 v1.17]
[2017/06/30 v1.18]

1 Usage

1.1 Option multidot

The file name parsing of package graphics is changed, in order to detect known extensions. This allows both the use of dots inside the base file name and extensions with several dots.

Assume there are two files in the currect directory: Hello.World.eps and Hello.World.pdf. \includegraphics{Hello.World} will find Hello.World.pdf with driver pdftex or Hello.World.eps with driver dvips.

Limitations: Problem could occur on systems, which don't use the dot as extension delimiter. These systems needs an own texsys.cfg containing definitions for \filename@parse. The author could not test that, due to a missing example.

1.2 Option babel

This option allows the use of shorthand characters of package babel inside the graphics file name. Additionally the tilde '~' is supported. The option is turned on as default. (In version v1.1 or below of this package, the features of this option were part of option extendedchars.)

Example:

\usepackage[frenchb]{babel}
\usepackage{grffile}
Image:_\includegraphics{C:/path/image}

1.3 Option extendedchars

If the input encoding is the same encoding as the encoding that is used for file names and the driver allows non-ascii characters. Without option extendedchars the 8-bit characters are expanded, if they are active characters. For example, see the LATEX package inputenc. However a file name is not input for LATEX. Therefore this option extendedchars removes the active status and the 8-bit characters are not expandable any more.

Example:

```
\usepackage[latin1]{inputenc}
\usepackage[extendedchars]{grffile}
\includegraphics{Bäckerstraße}
```

If the draft option of the graphics package is enabled, the file name is printed with the current font encoding for \ttfamily. Thus it is possible, that such characters are omitted or the wrong characters are displayed, if the font encoding is not the same as the file name encoding.

1.4 Option encoding

Consider the following scenario. Your file system is using UTF-8 as encoding for file names. But you use latin1 as input encoding for your TEX files, because some packages are not ready for multi-byte encodings (listings, ...).

Then this option encoding loads support for converting encodings by loading package stringenc. The option is not defined after the preamble, because IATEX limits package loading to the preamble.

File names are converted, if package stringenc is loaded and the encodings are known, see options inputencoding and filenameencoding.

1.4.1 Option inputencoding

Option inputencoding specifies the encoding of the file name in your T_EX input file.

Package inputenx and package inputenc since version 2006/02/22 v1.1a remember the name of the input encoding that is looked up by this package. Therefore option inputencoding is usually not mandatory.

1.4.2 Option filenameencoding

This is the encoding of the filename of your file system. This option is mandatory, file names are not converted without this option. The option is disabled, if the value is empty.

1.4.3 Example

Back to the scenario where the file system uses UTF-8 and the LATEX input files are encodind in latin1.

```
\usepackage[latin1]{inputenc}[2006/02/22]
\usepackage[latin1]{inputenx}
\usepackage{graphicx}
\usepackage[encoding,filenameencoding=utf8]{grffile}
```

For older versions of package inputenc option inputencoding provides the necessary informations.

```
\usepackage[latin1]{inputenc}
\usepackage{graphicx}
\usepackage{grffile}
\grffilesetup{
uuencoding,
uuinputencoding=latin1,
uufilenameencoding=utf8,
}
```

1.5 Option space

This option allows graphics file names that contain spaces if possible.

In general it is not possible to use space inside file names, because TEX considers the space character as termination in its syntax for commands that expect a file name.

Regarding graphics inclusion with the package graphics file names are used in two or three contexts:

- 1. The basic \special statement or primitive command for graphics inclusion. The \special statements for drivers dvips or dvipdfm do not allow spaces. However pdfTEX's primitive \pdfximage uses curly braces to delimit the file name and allows spaces. In case of XTEX file names can be enclosed in quotes to support spaces (at the cost that quotes no longer work).
- 2. \includegraphics checks the existence of the file. Also it looks for the right extension if the extension is not given.
 - If pdfT_EX 1.30 is given, the file existence test can be rewritten using a new primitive that allows spaces. This works in both modes DVI and PDF.
 - In case of X_HT_EX the file existence test is rewritten to automatically add quotes.
- Sometimes files are read as T_EX input files. For example, .bb files or MPS files.

If pdfTEX 1.30 or greater is used in PDF mode then the graphics file names may contain spaces except for MPS files. Therefore option space is only enabled by default, if the supported pdfTEX in PDF mode is detected or X±TEX is running. You can enable the option manually, if you know, your DVI driver supports spaces in its \special syntax and if there is no need to read the image file as TEX input file (third context).

1.6 General use

The options can be given at many places:

- 1. As package options:
 \usepackage[<options>]{grffile}
- 2. Setup command of package grffile:
 \grffilesetup{<options>}
- 3. The options are also available as options for package graphicx: \setkeys{Gin}{<options>}
- 4. If package graphicx is loaded the options can also be applied for a single image:

```
\includegraphics[<options>]{...}
```

1.7 Default settings

```
multidot true babel true extendedchars false space true if pdfTEX 1.30 or greater is used in PDF mode false otherwise
```

2 Implementation

2.1 New Package status.

Changes to the core graphics code have made the main features of this package (supporting multiple dots and spaces in filenames) unneeded as they are supported in the core code. The changes in the core also mean some patches in this package no longer work.

So by default this package does nothing but (especially if you have rolled back other aspects of the latex code) you may want the original version, which is available as

```
u\usepackage{grffile}[=2017/06/30]

1 (*new)
2 \DeclareRelease{v1}{2017-06-30}{grffile-2017-06-30.sty}
3 \DeclareCurrentRelease{}{2019-11-11}
4 \ProvidesPackage{grffile}%
5 [2019/11/11 v2.1 Extended file name support for graphics (legacy)]%
6 \PackageInfo{grffile}{This package is an empty stub for compatibility}
7 \DeclareOption*{}
8 \ProcessOptions
9 \RequirePackage{graphicx}
10 (/new)
```

2.2 Identification

```
11 \langle *package \rangle
12 \NeedsTeXFormat{LaTeX2e}
13 \ProvidesPackage{grffile}%
14 [2017/06/30 v1.18 Extended file name support for graphics (HO)]%
```

2.3 Catcode stuff

```
15 \edef\grffile@RestoreCatcodes{%
    \catcode'\noexpand\=\the\catcode'\=\relax
    \catcode'\noexpand\:\the\catcode'\:\relax
17
    \catcode'\noexpand\.\the\catcode'\.\relax
18
    \catcode'\noexpand\'\the\catcode'\'\relax
19
20
    \catcode'\noexpand\<\the\catcode'\<\relax
    \catcode'\noexpand\>\the\catcode'\>\relax
21
    \catcode'\noexpand\*\the\catcode'\*\relax
23
    \catcode'\noexpand\^\the\catcode'\^\relax
24
    \catcode'\noexpand\~\the\catcode'\~\relax
25 }
26 \@makeother\=
27 \@makeother\:
28 \@makeother\.
29 \@makeother\'
```

```
30 \@makeother\<
31 \@makeother\>
32 \@makeother\*
33 \catcode'\^=7 %
34 \catcode'\~=\active
      Options
2.4
35 \RequirePackage{ifpdf}[2010/01/28]
36 \RequirePackage{ifxetex}[2010/09/12]
37 \RequirePackage{kvoptions} [2006/08/17]
38 \SetupKeyvalOptions{%
39 family=Gin,%
40 prefix=grffile0%
41 }
42 \DeclareDefaultOption{\Qunknownoptionerror}
43 \DeclareBoolOption[true] {multidot}
44 \DeclareBoolOption[true] {babel}
45 \DeclareBoolOption[false]{extendedchars}
46 \DeclareBoolOption{space}
47 \DeclareVoidOption{encoding}{%
     \RequirePackage{stringenc}\relax
49 }
50 \DeclareStringOption{inputencoding}
51 \DeclareStringOption{filenameencoding}
52 \DeclareDefaultOption{%
53
     \PassOptionsToPackage\CurrentOption{graphics}%
54 }
Default setting for option space.
55 \RequirePackage{pdftexcmds} [2007/11/11]
56 \ifxetex
57 \grffile@spacetrue
58 \else
     \begingroup\expandafter\expandafter\expandafter\endgroup
     \expandafter\ifx\csname pdf@filesize\endcsname\relax
       \grffile@spacefalse
       \let\grffile@space@disabled\@empty
62
       \def\grffile@spacetrue{%
63
         \PackageWarning{grffile}{%
64
           Option 'space' is not available, \MessageBreak
65
           because it needs pdfTeX >= 1.30 or XeTeX%
66
67
         }%
       }%
68
69
     \else
       \ifpdf
70
         \grffile@spacetrue
71
       \else
72
73
         \grffile@spacefalse
74
       \fi
75
76\fi
77 \ProcessKeyvalOptions*
78 \AtBeginDocument{%
```

\grffilesetup

80 }

81 \RequirePackage{graphics}

\DisableKeyvalOption[package=grffile]{Gin}{encoding}%

```
82 \newcommand*{\grffilesetup}{%
                                       \setkeys{Gin}%
                                   84 }
\grffile@org@Ginclude@graphics
                                   85 \let\grffile@org@Ginclude@graphics\Ginclude@graphics
             \Ginclude@graphics
                                   86 \renewcommand*{\Ginclude@graphics}{%
                                   87
                                       \ifx\grffile@filenameencoding\@empty
                                   88
                                       \else
                                         \ifx\grffile@inputencoding\@empty
                                   89
                                   90
                                           \expandafter\ifx\csname inputencodingname\endcsname\relax
                                   91
                                              \expandafter\ifx\csname
                                   92
                                                  CurrentInputEncodingOption\endcsname\relax
                                   93
                                                \let\grffile@inputencoding\CurrentInputEncodingOption
                                   94
                                             \fi
                                   95
                                           \else
                                   96
                                   97
                                              \let\grffile@inputencoding\inputencodingname
                                   98
                                   99
                                         \fi
                                         \ifx\grffile@inputencoding\@empty
                                  100
                                  101
                                           \grffile@extendedcharstrue
                                  102
                                  103
                                         \fi
                                  104
                                  105
                                       \ifnum0\ifgrffile@babel 1\fi\ifgrffile@extendedchars 1\fi>\z@
                                  106
                                         \begingroup
                                  Support of babel's shorthand characters.
                                           \ifgrffile@babel
                                  107
                                             \csname @safe@activestrue\endcsname
                                  108
                                  Support of active tilde.
                                  109
                                             \edef~{\string~}%
                                  Support of characters controlled by package inputenc.
                                  110
                                  111
                                           \ifgrffile@extendedchars
                                             \grffile@inputenc@loop\^^A\^^H\%
                                  112
                                             \grffile@inputenc@loop\^^K\^^K%
                                  113
                                             \grffile@inputenc@loop\^^N\^^_%
                                  114
                                              \grffile@inputenc@loop\^^?\^^ff%
                                  115
                                  116
                                           \expandafter\grffile@extchar@Ginclude@graphics
                                  117
                                  118
                                         \expandafter\grffile@Ginclude@graphics
                                  119
                                       \fi
                                  120
                                  121 }
ffile@extchar@Ginclude@graphics
                                  122 \def\grffile@extchar@Ginclude@graphics#1{%
                                  123
                                       \toks@{#1}%
                                       \edef\grffile@filename{\the\toks@}%
                                  124
                                       \ifx\grffile@inputencoding\@empty
                                  125
                                  126
                                       \else
                                  127
                                         \ifx\grfile@filenameencoding\@empty
```

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\else

```
\ifx\grffile@inputencoding\grffile@filenameencoding
                         130
                                   \else
                         131
                                     \expandafter\ifx\csname StringEncodingConvert\endcsname\relax
                         132
                                       \PackageError{grffile}{%
                                         Package 'stringenc' is not loaded, \MessageBreak
                         133
                                         omitting file name conversion%
                         134
                                       }\@ehc
                         135
                                     \else
                         136
                                       \StringEncodingConvert\grffile@temp\grffile@filename
                         137
                                           \grffile@inputencoding\grffile@filenameencoding
                         138
                                       \StringEncodingSuccessFailure{%
                         139
                                         \let\grffile@filename\grffile@temp
                         140
                         141
                                       }{%
                                         \PackageError{grffile}{%
                         142
                                           Filename conversion failed%
                         143
                         144
                                         }\@ehc
                                       }%
                         145
                                     \fi
                         146
                                   \fi
                         147
                                 \fi
                         148
                              \fi
                         149
                               \toks@\expandafter{\grffile@filename}%
                         150 %
                              \edef\x{\endgroup
                         151
                         152 %
                                  \noexpand\grffile@Ginclude@graphics{\the\toks@}%
                                 \noexpand\grffile@Ginclude@graphics{\grffile@filename}%
                         153
                         154
                              }%
                         155
                              \x
                         156 }
\grffile@inputenc@loop
                         157 \def\grffile@inputenc@loop#1#2{%
                              \count@='#1\relax
                              \loop
                         159
                         160
                                 \begingroup
                                   \uccode'\~=\count@
                         161
                                 \uppercase{%
                         162
                         163
                                   \endgroup
                                   \edef~{\string~}%
                         164
                         165
                              \ifnum\count@<'#2\relax
                         166
                                 \advance\count@\@ne
                         167
                              \repeat
                         168
                         169 }
                         Support for option space
\grffile@space@getbase
                         170 \def\grffile@space@getbase#1{%
                              \edef\grffile@tempa{%
                         171
                                 \def\noexpand\@tempa###1#1\noexpand\@nil{%
                         172
                         173
                                   \def\noexpand\Gin@base{###1}%
                                }%
                         174
                              }%
                         175
                         176
                               \grffile@IfFileExists{\filename@area\filename@base#1}{%
                         177
                                 \grffile@tempa
                         178
                                 \expandafter\@tempa\grffile@file@found\@nil
                         179
                                 \edef\Gin@ext{#1}%
                         180
                              }{%
```

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```
181
                                  }%
                              182 }
                              183 \begingroup\expandafter\expandafter\expandafter\endgroup
                              184 \expandafter\ifx\csname pdf@filesize\endcsname\relax
                                   \ifxetex
\grffile@XeTeX@IfFileExists
                              186
                                      \long\def\grffile@XeTeX@IfFileExists#1{%
                                        \openin\@inputcheck"#1" %
                              187
                              188
                                        \ifeof\@inputcheck
                                          \closein\@inputcheck
                              189
                                          \expandafter\@secondoftwo
                              190
                                        \else
                              191
                              192
                                          \closein\@inputcheck
                              193
                                          \expandafter\@firstoftwo
                              194
                                        \fi
                                      }%
                              195
      \grffile@IfFileExists
                                      \long\def\grffile@IfFileExists#1{%
                              196
                                        \grffile@XeTeX@IfFileExists{#1}{%
                              197
                                          \edef\grffile@file@found{#1}%
                              198
                              199
                                          \@firstoftwo
                                        }{%
                              200
                              201
                                          \let\reserved@a\@secondoftwo
                              202
                                          \ifx\input@path\@undefined
                                          \else
                              203
                              204
                                            \expandafter\Otfor\expandafter\reservedOb\expandafter
                              205
                                                 :\expandafter=\input@path\do{%
                              206
                                               \grffile@XeTeX@IfFileExists{\reserved@b#1}{%
                                                 \edef\grffile@file@found{\reserved@b#1}%
                              207
                                                 \let\reserved@a\@firstoftwo
                              208
                                                 \iftrue\@break@tfor\fi
                              209
                                              }{}%
                              210
                                            }%
                              211
                              212
                                          \fi
                                          \reserved@a
                              213
                              214
                                        }%
                                      }%
                              215
                              Patch \Gread@QTm of xetex.def.
     \grffile@org@Gread@QTm
                                      \def\grffile@org@Gread@QTm#1{%
                              216
                                        \IfFileExists{\Gin@base.bb}{%
                              217
                              218
                                          \Gread@eps{\Gin@base.bb}%
                              219
                                        }{%
                              220
                                          \G@measure@QTm{\Gin@base}{\Gin@ext}%
                                        }%
                              221
                                      }%
                              222
                              223
                                      \ifx\Gread@QTm\grffile@org@Gread@QTm
                  \Gread@QTm
                                        \def\Gread@QTm#1{%
                              224
                                          \grffile@IfFileExists{\Gin@base.bb}{%
                              225
                                            \Gread@eps{\Gin@base.bb}%
                              226
                                          }{%
                              227
                                            \G@measure@QTm{\Gin@base}{\Gin@ext}%
                              228
```

```
229
                                     }%
                                   }%
                         230
                         231
                                   \PackageInfo{grffile}{\string\Gread@QTm\space patched}%
                         232
                         233
                                   \begingroup\expandafter\expandafter\expandafter\endgroup
                         234
                                   \expandafter\ifx\csname Gread@QTm\endcsname\relax
                         235
                                     \@ifpackagelater{graphics}{2017/06/01}
                                       {}
                         236
                         237
                                       {%
                         238
                                         \PackageWarning{grffile}{%
                                            \string\Gread@QTm\space of xetex.def not found%
                         239
                         240
                                         }%
                                       }%
                         241
                                   \else
                         242
\grffile@org@Gread@QTm
                                     \let\grffile@org@Gread@QTm\Gread@QTm
                         243
            \Gread@QTm
                                     \def\Gread@QTm#1{%
                         244
                                       \let\grffile@saved@IfFileExists\IfFileExists
                         245
                                       \let\IfFileExists\grffile@IfFileExists
                         246
                                       \grffile@org@GreadQTm{#1}%
                         247
                         248
                                       \let\IfFileExists\grffile@saved@IfFileExists
                         249
                                     }%
                                   \fi
                         250
                                 \fi
                         251
\grffile@org@Gread@eps
                         252
                                 \let\grffile@org@Gread@eps\Gread@eps
                                 \def\grffile@temp#1\immediate\openin#2 #3\grffile@nil#4\grffile@NIL{%
                         253
                                   \begingroup
                         254
                                   \toks@{#2}%
                         255
                                   \edef\grffile@temp{\the\toks@}%
                         256
                                   \def\grffile@test{\@inputcheck###1}%
                         257
                                   \ifx\grffile@temp\grffile@test
                         258
                         259
                                     \expandafter\@firstoftwo
                         260
                                   \else
                                     \expandafter\@secondoftwo
                         261
                                   \fi
                         262
                                   {%
                         263
                                     \toks@{%
                         264
                         ^{265}
                                       #1%
                                       \immediate\openin\@inputcheck"##1"\relax
                         266
                         267
                                       #3%
                                     }%
                         268
                                     \expandafter\endgroup
                         269
                                     \expandafter\def\expandafter\Gread@eps
                         270
                                     \expandafter##\expandafter1\expandafter{%
                         271
                         272
                                       \the\toks@
                                     }%
                         273
                                     \PackageInfo{grffile}{%
                         274
                                       \string\Gread@eps\space patched%
                         275
                                     }%
                         276
                                   }{%
                         277
                                     \verb|\difpackagelater{graphics}{2017/06/01}|
                         278
```

```
{}
                        279
                                      {%
                        280
                        281
                                        \PackageWarning{grffile}{%
                        282
                                          Unsupported \string\Gread@eps\space not patched%
                        283
                                     }%
                        284
                                    \endgroup
                        285
                                 }%
                        286
                               }%
                        287
                               \expandafter\grffile@temp\Gread@eps{#1}\grffile@nil
                        288
                                    \immediate\openin{} \grffile@nil\grffile@NIL
                        289
                        290
                             \else
                               \begingroup
                        291
                                 \let\on@line\@empty
                        292
                                 \PackageInfo{grffile}{%
                        293
                                    \string\grffile@IfFileExists\space without space support,%
                        294
                                    \MessageBreak
                        295
                        296
                                    because pdfTeX's \string\pdffilesize\space is not available%
                        297
                                    \MessageBreak
                                    or XeTeX is not running%
                        298
                                 }%
                        299
                               \endgroup
                        300
\grffile@IfFileExists
                        301
                               \long\def\grffile@IfFileExists#1{%
                        302
                                 \IfFileExists{#1}{%
                        303
                                    \let\grffile@IFE@next\@firstoftwo
                        304
                        305
                                    \let\grffile@file@found\@filef@und
                                    \let\grffile@IFE@next\@secondoftwo
                        306
                                 }%
                        307
                                  \grffile@IFE@next
                        308
                               }%
                        309
                            \fi
                        310
                        311 \else
\grffile@IfFileExists
                        312
                             \long\def\grffile@IfFileExists#1{%
                        313
                               \expandafter\expandafter\expandafter
                               \int \ensuremath{\mbox{\mbox{\mbox{$\sim$}}}\
                        314
                                 \let\reserved@a\@secondoftwo
                        315
                                 \ifx\input@path\@undefined
                        316
                                 \else
                        317
                                    \expandafter\@tfor\expandafter\reserved@b\expandafter
                        318
                        319
                                        :\expandafter=\input@path\do{%
                                      \expandafter\expandafter\expandafter
                        320
                        321
                                      \ifx\expandafter\expandafter\expandafter
                                          \\pdf@filesize{\reserved@b#1}\\%
                        322
                                      \else
                        323
                                        \edef\grffile@file@found{\reserved@b#1}%
                        324
                        325
                                        \let\reserved@a\@firstoftwo
                        326
                                        \@break@tfor
                                      \fi
                        327
                                   }%
                        328
                        329
                                 \expandafter\reserved@a
                        330
                        331
                               \else
```

```
332
                                       \edef\grffile@file@found{#1}%
                             333
                                       \expandafter\@firstoftwo
                             334
                                     \fi
                                  }%
                             335
                             336 \fi
\grffile@Ginclude@graphics
                             337 \def\grffile@Ginclude@graphics#1{%
                                   \begingroup
                             339
                                     \ifgrffile@space
                                       \let\Gin@getbase\grffile@space@getbase
                             340
                             341
                                     \ifgrffile@multidot
                             342
                                       \let\filename@base\@empty
                             343
                             344
                                       \let\filename@simple\grffile@filename@simple
                             345
                                     \grffile@org@Ginclude@graphics{#1}%
                             347
                                   \endgroup
                             348 }%
  \grffile@filename@simple
                             349 \def\grffile@filename@simple#1.#2\\{%
                             350
                                  \ifx\\#2\\%
                                     \def\filename@base{#1}%
                             351
                             352
                                     \let\filename@ext\relax
                             353
                                     \def\filename@base{}%
                             354
                                     \grffile@analyze@ext{#1}.{#2}\\%
                             355
                                   \fi
                             356
                             357 }
      \grffile@analyze@ext
                             358 \def\grffile@analyze@ext#1.#2\\{%
                             359
                                  \let\grffile@next\relax
                                   \ifx\\#2\\%
                             360
                                     \edef\filename@base{\filename@base#1}%
                             361
                             362
                                     \let\filename@ext\relax
                             363
                                     \def\grffile@next{\grffile@try@extlist}%
                             364
                             365
                                     \edef\filename@base{\filename@base #1}%
                             366
                                     \edef\filename@ext{\filename@dot#2\\}%
                             367
                                     \expandafter\ifx\csname Gin@rule@.\filename@ext\endcsname\relax
                             368
                                       \edef\filename@base{\filename@base.}%
                             369
                                       \def\grffile@next{\grffile@analyze@ext#2\\}%
                             370
                                       \grffile@IfFileExists{\filename@area\filename@base.\filename@ext}{%
                             371
                             372
                                       }{%
                             373
                                         \edef\filename@base{\filename@base.\filename@ext}%
                             374
                                         \let\filename@ext\relax
                             375
                                         \def\grffile@next{\grffile@try@extlist}%
                             376
                             377
                                       }%
                             378
                                     \fi
                             379
                                   \fi
                             380
                                   \grffile@next
                             381 }
```

```
\grffile@try@extlist
                        382 \def\grffile@try@extlist{%
                             \@for\grffile@temp:=\Gin@extensions\do{%
                        384
                               \grffile@IfFileExists{\filename@area\filename@base\grffile@temp}{%
                        385
                                 \ifx\filename@ext\relax
                        386
                                   \edef\filename@ext{\expandafter\@gobble\grffile@temp\@empty}%
                        387
                                 \fi
                               }{}%
                        388
                        389
                             }%
                        390
                             \ifx\filename@ext\relax
                        391
                               \expandafter\let\expandafter\filename@base\expandafter\@empty
                               \expandafter\grffile@use@last@ext\filename@base.\\%
                        392
                        393
                             \fi
                        394 }
\grffile@use@last@ext
                        395 \def\grffile@use@last@ext#1.#2\\{%
                             \ifx\\#2\\%
                        397
                               \def\filename@ext{#1}%
                        398
                               \expandafter\@gobble
                        399
                             \else
                        400
                               \edef\filename@base{\filename@base#1.}%
                        401
                               \expandafter\@firstofone
                        402
                        403
                             \fi
                             {%
                        404
                               \grffile@use@last@ext#2\\%
                        405
                             }%
                        406
                        407 }
                           Print current option setting
\grffile@option@status
                        408 \def\grffile@option@status#1{%
                        409
                             \begingroup
                        410
                               \let\on@line\@empty
                               \PackageInfo{grffile}{%
                        411
                                 Option '#1' is %
                        412
                        413
                                 \expandafter\ifx\csname ifgrffile@#1\expandafter\endcsname
                        414
                                                 \csname iftrue\endcsname
                        415
                                   set to 'true'%
                        416
                        417
                                   \expandafter\ifx\csname grffile@#1@disabled\endcsname\@empty
                        418
                                     not available%
                        419
                                   \else
                                     set to 'false'%
                        420
                        421
                                   \fi
                        422
                                 \fi
                        423
                               }%
                             \endgroup
                        424
                        425 }
                        426 \grffile@option@status{multidot}
                        427 \grffile@option@status{extendedchars}
                        428 \grffile@option@status{space}
```

2.5 Fix \Gin@ii of package graphicx

If the image file name contains the hash character macro \Gin@ii of package graphicx breaks.

```
\grffile@Gin@ii@graphicx
```

```
429 \def\grffile@Gin@ii@graphicx[#1]#2{%
                                                                                    \def\@tempa{[}%
                                                                     430
                                                                     431
                                                                                    \def\@tempb{#2}%
                                                                     432
                                                                                    \ifx\@tempa\@tempb
                                                                     433
                                                                                          \def\@tempa{\Gin@iii[#1][}% hash-ok
                                                                                          \expandafter\@tempa
                                                                     434
                                                                     435
                                                                                    \else
                                                                                          \begingroup
                                                                     436
                                                                                                \@tempswafalse
                                                                     437
                                                                                                \toks@{\Ginclude@graphics{#2}}%
                                                                     438
                                                                     439
                                                                                                \setkeys{Gin}{#1}%
                                                                                                \Gin@esetsize
                                                                     440
                                                                     441
                                                                                                \the\toks@
                                                                     442
                                                                                          \endgroup
                                                                     443
                                                                                    \fi
                                                                     444 }
\grffile@Gin@ii@fixed
                                                                     445 \def\grffile@Gin@ii@fixed[#1]#2{%
                                                                     446
                                                                                  \def\@tempa{[}%
                                                                     447
                                                                                    \begingroup
                                                                                          \toks@={#2}%
                                                                     448
                                                                                          \end{cond} $$ 
                                                                     449
                                                                                    \expandafter\endgroup
                                                                     450
                                                                     451
                                                                                    \ifx\@tempa\@tempb
                                                                                          \def\@tempa{\Gin@iii[#1][}% hash-ok
                                                                     452
                                                                                          \expandafter\@tempa
                                                                     453
                                                                     454
                                                                                    \else
                                                                                          \begingroup
                                                                     455
                                                                                                \@tempswafalse
                                                                     456
                                                                                                \toks@{\Ginclude@graphics{#2}}%
                                                                     457
                                                                     458
                                                                                                \scalebox{Gin}{\#1}%
                                                                     459
                                                                                                \Gin@esetsize
                                                                                                \the\toks@
                                                                     460
                                                                     461
                                                                                          \endgroup
                                                                     462
                                                                                    \fi
                                                                     463 }
      \grffile@Fix@Gin@ii
                                                                     464 \def\grffile@Fix@Gin@ii{%
                                                                                   \let\Gin@ii\grffile@Gin@ii@fixed
                                                                     466
                                                                                    \begingroup
                                                                     467
                                                                                          \escapechar=92 %
                                                                                          \PackageInfo{grffile}{\string\Gin@ii\space of package 'graphicx' fixed}%
                                                                     468
                                                                                    \endgroup
                                                                     469
                                                                     470 }
                                                                     471 \ifx\Gin@ii\grffile@Gin@ii@graphicx
                                                                     472 \grffile@Fix@Gin@ii
                                                                     473 \else
                                                                     474 \AtBeginDocument{\grffile@Fix@Gin@ii}%
                                                                     475 \fi
```

```
476 \grffile@RestoreCatcodes 477 \langle /package \rangle
```

3 Test

3.1 Multidot with default rule

```
478 (*test1)
479 \NeedsTeXFormat{LaTeX2e}
480 \documentclass{article}
481 \usepackage{filecontents}
482 % file grffile-test.mp:
483 % beginfig(1);
484 %
      draw fullcircle scaled 2cm withpen pencircle scaled 2mm;
485 % endfig;
486 % end
487 \begin{filecontents*}{grffile-test.1}
489 % Bounding Box: -32 -32 32 32
490 %%Creator: MetaPost
491 %%CreationDate: 2004.06.16:1257
492 %%Pages: 1
493 %EndProlog
494 %%Page: 1 1
495 0 5.66928 dtransform truncate idtransform setlinewidth pop [] 0 setdash
496 1 setlinejoin 10 setmiterlimit
497 newpath 28.34645 0 moveto
498 28.34645 7.51828 25.35938 14.72774 20.04356 20.04356 curveto
499 14.72774 25.35938 7.51828 28.34645 0 28.34645 curveto
500 -7.51828 28.34645 -14.72774 25.35938 -20.04356 20.04356 curveto
501 -25.35938 14.72774 -28.34645 7.51828 -28.34645 0 curveto
502 -28.34645 -7.51828 -25.35938 -14.72774 -20.04356 -20.04356 curveto
503 -14.72774 -25.35938 -7.51828 -28.34645 0 -28.34645 curveto
504 7.51828 -28.34645 14.72774 -25.35938 20.04356 -20.04356 curveto
505 25.35938 -14.72774 28.34645 -7.51828 28.34645 0 curveto closepath stroke
506 showpage
507 %EOF
508 \end{filecontents*}
509 \usepackage{graphicx}
510 \usepackage[multidot] {grffile} [2008/10/13]
511 \DeclareGraphicsRule{*}{mps}{*}{} % for pdflatex
512 \begin{document}
513 \includegraphics{grffile-test.1}
514 \end{document}
515 (/test1)
```

f 4 Installation

4.1 Download

Package. This package is available on CTAN¹:

CTAN:macros/latex/contrib/grffile/grffile.dtx The source file.

CTAN:macros/latex/contrib/grffile/grffile.pdf Documentation.

¹http://ctan.org/pkg/grffile

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/grffile.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 T_FX:

```
tex grffile.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}{ll} grffile.sty & \rightarrow tex/latex/grffile/grffile.sty \\ grffile.pdf & \rightarrow doc/latex/grffile/grffile.pdf \\ test/grffile-test1.tex & \rightarrow doc/latex/grffile/test/grffile-test1.tex \\ grffile.dtx & \rightarrow source/latex/grffile/grffile.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 grffile.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{grffile.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:

```
\label{eq:pdflatex_prffile.dtx} $$ \mbox{makeindex}_{\square} - s_{\square} \mbox{gind.ist}_{\square} \mbox{grffile.idx} $$ \mbox{pdflatex}_{\square} \mbox{griffile.dtx} $$ \mbox{makeindex}_{\square} - s_{\square} \mbox{gind.ist}_{\square} \mbox{grffile.idx} $$ \mbox{pdflatex}_{\square} \mbox{grffile.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 grffile.xml.

```
516 (*catalogue)
517 <?xml version='1.0' encoding='us-ascii'?>
518 <! DOCTYPE entry SYSTEM 'catalogue.dtd'>
519 <entry datestamp='$Date$' modifier='$Author$' id='grffile'>
520
     <name>grffile</name>
521
     <caption>Extended file name support for graphics.</caption>
522
     <authorref id='auth:oberdiek'/>
     <copyright owner='Heiko Oberdiek' year='2006-2012'/>
523
     cense type='lppl1.3'/>
524
     <version number='1.18'/>
525
     <description>
526
527
       The package extends the file name processing of package
       <xref refid='graphics'>graphics</xref> to support a larger range
528
       of file names. For example, the file name may contain several dots.
529
530
       Or in case of xref refid='pdftex'>pdfTeX in PDF mode the
531
       file name may contain spaces.
532
533
       534
       The package is part of the <xref refid='oberdiek'>oberdiek</xref>
535
       bundle.
536
     </description>
     <documentation details='Package documentation'</pre>
537
         href='ctan:/macros/latex/contrib/grffile/grffile.pdf'/>
538
     <ctan file='true' path='/macros/latex/contrib/grffile/grffile.dtx'/>
539
540
     <miktex location='oberdiek'/>
```

```
541 <texlive location='oberdiek'/>
542 <install path='/macros/latex/contrib/grffile/grffile.tds.zip'/>
543 </entry>
544 </catalogue>
```

6 References

- [1] David Carlisle, Sebastian Rahtz: *The graphics package*; 2006/02/20 v1.0o; CTAN:macros/latex/required/graphics/graphics.dtx.
- [2] Sebastian Rahtz, Heiko Oberdiek: *The graphicx package*; 1999/02/16 v1.0f; CTAN:macros/latex/required/graphics/graphicx.dtx.

7 History

[2004/07/18 v0.5]

• First version, published in newsgroup de.comp.text.tex: "Re: Dateinamenproblem" 2

[2006/08/15 v1.0]

- File existence check by new primitives of pdfTeX 1.30.
- Implementation partly rewritten.
- New DTX framework.

[2006/08/17 v1.1]

• Adaptation to version 2.3 of package kvoptions.

[2006/11/30 v1.2]

• New option babel. Before this feature was part of option extendedchars.

[2007/04/11 v1.3]

• Line ends sanitized.

$[2007/06/13\ v1.4]$

 Encoding support added with options encoding, inputencoding, and filenameencoding.

[2007/08/16 v1.5]

• Bug fix in encoding support.

[2007/11/11 v1.6]

• Use of package pdftexcmds for LuaT_FX support.

 $^{^2\}mathrm{Url:\ http://groups.google.com/group/de.comp.text.tex/msg/b85984095d1a3c95}$

[2007/11/24 v1.7]

• Bug fix of broken previous version.

[2008/08/11 v1.8]

- Code is not changed.
- URLs updated.

[2008/10/13 v1.9]

• Fix for option 'multidot' with default rule.

[2009/09/25 v1.10]

• Rewrite of 'multidot' algorithm to fix a problem ('multidot' with \graphicspath).

[2010/01/28 v1.11]

• Undefined \pdf@filesize fixed.

[2010/08/26 v1.12]

 Macro \Gin@ii of package graphicx fixed for the case that the file name contains a hash.

[2010/12/09 v1.13]

• Option space also supports X_HT_EX.

[2011/10/04 v1.14]

• Fix for option space support of X_HT_EX for EPS files (\Gread@eps). (Bug reported by Peter Davis.)

[2011/10/17 v1.15]

• Bug fix for option space support of X₂T_EX. Wrong usage of \@break@tfor fixed. (Bug reported by Martin Schröder.)

[2012/04/05 v1.16]

• Some fix for option extendedchars.

[2016/05/16 v1.17]

• Documentation updates.

[2017/06/30 v1.18]

• Update to follow graphics changes.

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253, 256, 258, 288, 383, 384, 386 \grffile@tempa	\RequirePackage 9, 35, 36, 37, 48, 55, 81 \reserved@a 201, 208, 213, 315, 325, 330 \reserved@b 204, 206, 207, 318, 322, 324 \\ S \setkeys
253, 256, 258, 288, 383, 384, 386 \grffile@tempa	\RequirePackage 9, 35, 36, 37, 48, 55, 81 \reserved@a 201, 208, 213, 315, 325, 330 \reserved@b 204, 206, 207, 318, 322, 324 \\ S \\ \SetupKeyvalOptions \ldots 38 \space 231, 239, 275, 282, 294, 296, 468 \\ \StringEncodingConvert \ldots 137 \\ \T\ \the \ldots 16, 17, 18, 19, 20, 21, 22, 23, 24, 124, 152, 256, 272, 441, 449, 460 \\ \toks@ \ldots 123,
253, 256, 258, 288, 383, 384, 386 \grffile@tempa	\RequirePackage 9, 35, 36, 37, 48, 55, 81 \reserved@a 201, 208, 213, 315, 325, 330 \reserved@b 204, 206, 207, 318, 322, 324 \\ \textbf{S} \\ \setkeys \cdots 83, 439, 458 \\ \SetupKeyvalOptions \cdots 38 \\ \space 231, 239, 275, 282, 294, 296, 468 \\ \StringEncodingConvert \cdots 137 \\ \StringEncodingSuccessFailure \cdots 139 \\ \textbf{T} \\ \the \cdot 16, 17, 18, 19, 20, 21, 22, 23, 24, 124, 152, 256, 272, 441, 449, 460 \\ \toks@ \cdots \cdots 123, 124, 150, 152, 255, 256, 264, \\ \end{array}
253, 256, 258, 288, 383, 384, 386 \grffile@tempa 171, 177 \grffile@test	\RequirePackage 9, 35, 36, 37, 48, 55, 81 \reserved@a 201, 208, 213, 315, 325, 330 \reserved@b 204, 206, 207, 318, 322, 324 \\ S \\ \SetupKeyvalOptions \ldots 38 \space 231, 239, 275, 282, 294, 296, 468 \\ \StringEncodingConvert \ldots 137 \\ \T\ \the \ldots 16, 17, 18, 19, 20, 21, 22, 23, 24, 124, 152, 256, 272, 441, 449, 460 \\ \toks@ \ldots 123,
253, 256, 258, 288, 383, 384, 386 \grffile@tempa	\text{RequirePackage 9, 35, 36, 37, 48, 55, 81} \text{reserved@a 201, 208, 213, 315, 325, 330} \text{reserved@b 204, 206, 207, 318, 322, 324} \text{S} SetupKeyvalOptions
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253, 256, 258, 288, 383, 384, 386 \grffile@tempa	\RequirePackage 9, 35, 36, 37, 48, 55, 81 \reserved@a 201, 208, 213, 315, 325, 330 \reserved@b 204, 206, 207, 318, 322, 324 \\ \textbf{S} \\ \setkeys \cdots 83, 439, 458 \\ \SetupKeyvalOptions \cdots 38 \\ \space 231, 239, 275, 282, 294, 296, 468 \\ \StringEncodingConvert \cdots 137 \\ \StringEncodingSuccessFailure \cdots 139 \\ \textbf{T} \\ \tag{24, 124, 152, 256, 272, 441, 449, 460} \\ \toks@ \cdots 123, \\ \tag{124, 150, 152, 255, 256, 264, 272, 438, 441, 448, 449, 457, 460} \\ \textbf{U} \\ \uccode \cdots \cdot 161 \\ \textbf{U}
253, 256, 258, 288, 383, 384, 386 \grffile@tempa	\text{RequirePackage 9, 35, 36, 37, 48, 55, 81} \text{reserved@a 201, 208, 213, 315, 325, 330} \text{reserved@b 204, 206, 207, 318, 322, 324} \text{S} \text{S} Setkeys
253, 256, 258, 288, 383, 384, 386 \grffile@tempa	\RequirePackage 9, 35, 36, 37, 48, 55, 81 \reserved@a 201, 208, 213, 315, 325, 330 \reserved@b 204, 206, 207, 318, 322, 324 \\ \textbf{S} \\ \setkeys \cdots 83, 439, 458 \\ \SetupKeyvalOptions \cdots 38 \\ \space 231, 239, 275, 282, 294, 296, 468 \\ \StringEncodingConvert \cdots 137 \\ \StringEncodingSuccessFailure \cdots 139 \\ \textbf{T} \\ \tag{24, 124, 152, 256, 272, 441, 449, 460} \\ \toks@ \cdots 123, \\ \tag{124, 150, 152, 255, 256, 264, 272, 438, 441, 448, 449, 457, 460} \\ \textbf{U} \\ \uccode \cdots \cdot 161 \\ \textbf{U}
253, 256, 258, 288, 383, 384, 386 \grffile@tempa	\text{RequirePackage 9, 35, 36, 37, 48, 55, 81} \text{reserved@a 201, 208, 213, 315, 325, 330} \text{reserved@b 204, 206, 207, 318, 322, 324} \text{S} \text{S} Setkeys
253, 256, 258, 288, 383, 384, 386 \grffile@tempa	\text{RequirePackage 9, 35, 36, 37, 48, 55, 81} \text{reserved@a 201, 208, 213, 315, 325, 330} \text{reserved@b 204, 206, 207, 318, 322, 324} \text{S} \text{S} Setkeys
253, 256, 258, 288, 383, 384, 386 \grffile@tempa	\text{RequirePackage 9, 35, 36, 37, 48, 55, 81} \text{reserved@a 201, 208, 213, 315, 325, 330} \text{reserved@b 204, 206, 207, 318, 322, 324} \text{S} SetupKeyvalOptions
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253, 256, 258, 288, 383, 384, 386 \grffile@tempa	\text{RequirePackage 9, 35, 36, 37, 48, 55, 81} \text{reserved@a 201, 208, 213, 315, 325, 330} \text{reserved@b 204, 206, 207, 318, 322, 324} \text{S} \text{S} Setkeys
253, 256, 258, 288, 383, 384, 386 \grffile@tempa	\text{RequirePackage 9, 35, 36, 37, 48, 55, 81} \text{reserved@a 201, 208, 213, 315, 325, 330} \text{reserved@b 204, 206, 207, 318, 322, 324} \text{S} Setkeys