

# The grffile package

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## Abstract

The package extends the file name processing of package `graphics` to support a larger range of file names. For example, the file name may contain several dots. Or in case of pdfTeX in PDF mode the file name may contain spaces.

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# 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 current 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  $\LaTeX$  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  $\TeX$  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 encoded 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{
  encoding,
  inputencoding=latin1,
  filenameencoding=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 `XYTeX` 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 `pdfTeX 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 `XYTeX` the file existence test is rewritten to automatically add quotes.
3. Sometimes files are read as `TeX` 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 `XYTeX` 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

<code>multidot</code>	<code>true</code>	
<code>babel</code>	<code>true</code>	
<code>extendedchars</code>	<code>false</code>	
<code>space</code>	<code>true</code>	if <code>pdfTeX 1.30</code> or greater is used in PDF mode
	<code>false</code>	otherwise

# 2 Implementation

## 2.1 Identification

```
1 <*package>
2 \NeedsTeXFormat{LaTeX2e}
3 \ProvidesPackage{grffile}%
4 [2012/04/05 v1.16 Extended file name support for graphics (HO)]%
```

## 2.2 Catcode stuff

```
5 \edef\grffile@RestoreCatcodes{%
6   \catcode`\noexpand=\the\catcode`\=\relax
7   \catcode`\noexpand\:\the\catcode`\:\relax
8   \catcode`\noexpand\.\the\catcode`\.\relax
9   \catcode`\noexpand'\the\catcode`\'\relax
10  \catcode`\noexpand<\the\catcode`\<\relax
11  \catcode`\noexpand>\the\catcode`\>\relax
12  \catcode`\noexpand*\the\catcode`\*\relax
13  \catcode`\noexpand^\the\catcode`\^\relax
14  \catcode`\noexpand~\the\catcode`\~\relax
15 }
16 \@makeother\=
17 \@makeother\:
18 \@makeother\.
19 \@makeother\'
20 \@makeother\<
21 \@makeother\>
22 \@makeother\*
23 \catcode`\^=7 %
24 \catcode`\~=\active
```

## 2.3 Options

```
25 \RequirePackage{ifpdf}[2010/01/28]
26 \RequirePackage{ifxetex}[2010/09/12]
27 \RequirePackage{kvoptions}[2006/08/17]
28 \SetupKeyvalOptions{%
29   family=Gin,%
30   prefix=grffile@%
31 }
32 \DeclareDefaultOption{\@unknownoptionerror}
33 \DeclareBoolOption[true]{multidot}
34 \DeclareBoolOption[true]{babel}
35 \DeclareBoolOption[false]{extendedchars}
36 \DeclareBoolOption{space}
37 \DeclareVoidOption{encoding}{%
38   \RequirePackage{stringenc}\relax
39 }
40 \DeclareStringOption{inputencoding}
41 \DeclareStringOption{filenameencoding}
42 \DeclareDefaultOption{%
43   \PassOptionsToPackage\CurrentOption{graphics}%
44 }
```

Default setting for option space.

```
45 \RequirePackage{pdftexcmds}[2007/11/11]
46 \ifxetex
47   \grffile@spacetrue
48 \else
49   \begingroup\expandafter\expandafter\expandafter\endgroup
50   \expandafter\ifx\csname pdf@filesize\endcsname\relax
51     \grffile@spacefalse
52     \let\grffile@space@disabled\@empty
53     \def\grffile@spacetrue{%
54       \PackageWarning{grffile}{%
55         Option `space' is not available,\MessageBreak
56         because it needs pdfTeX >= 1.30 or XeTeX%
57       }%
58     }%
59   \else
60     \ifpdf
61       \grffile@spacetrue
```

```

62     \else
63     \grffile@spacefalse
64     \fi
65     \fi
66 \fi

67 \ProcessKeyvalOptions*
68 \AtBeginDocument{%
69   \DisableKeyvalOption[package=grffile]{Gin}{encoding}%
70 }

71 \RequirePackage{graphics}

\grffilesetup
72 \newcommand*{\grffilesetup}{%
73   \setkeys{Gin}%
74 }

grffile@org@Gininclude@graphics
75 \let\grffile@org@Gininclude@graphics\Gininclude@graphics

\Gininclude@graphics
76 \renewcommand*{\Gininclude@graphics}{%
77   \ifx\grffile@filenameencoding\@empty
78   \else
79     \ifx\grffile@inputencoding\@empty
80       \expandafter\ifx\csname inputencodingname\endcsname\relax
81         \expandafter\ifx\csname
82           CurrentInputEncodingOption\endcsname\relax
83         \else
84           \let\grffile@inputencoding\CurrentInputEncodingOption
85         \fi
86       \else
87         \let\grffile@inputencoding\inputencodingname
88       \fi
89     \fi
90     \ifx\grffile@inputencoding\@empty
91     \else
92       \grffile@extendedcharstrue
93     \fi
94   \fi
95   \ifnum0\ifgrffile@babel 1\fi\ifgrffile@extendedchars 1\fi>\z@
96   \beginingroup

Support of babel's shorthand characters.
97     \ifgrffile@babel
98     \csname @safe@activetrue\endcsname

Support of active tilde.
99     \edef~{\string~}%

Support of characters controlled by package inputenc.
100    \fi
101    \ifgrffile@extendedchars
102    \grffile@inputenc@loop\^^A\^^H%
103    \grffile@inputenc@loop\^^K\^^K%
104    \grffile@inputenc@loop\^^N\^^_%
105    \grffile@inputenc@loop\^^?\^^ff%
106    \fi
107    \expandafter\grffile@extchar@Gininclude@graphics
108  \else
109    \expandafter\grffile@Gininclude@graphics
110  \fi
111 }

```

file@extchar@Ginclude@graphics

```
112 \def\grffile@extchar@Ginclude@graphics#1{%
113   \toks@{#1}%
114   \edef\grffile@filename{\the\toks@}%
115   \ifx\grffile@inputencoding\@empty
116   \else
117     \ifx\grffile@filenameencoding\@empty
118     \else
119       \ifx\grffile@inputencoding\grffile@filenameencoding
120       \else
121         \expandafter\ifx\csname StringEncodingConvert\endcsname\relax
122           \PackageError{grffile}{%
123             Package `stringenc' is not loaded,\MessageBreak
124             omitting file name conversion%
125           }\@ehc
126         \else
127           \StringEncodingConvert\grffile@temp\grffile@filename
128           \grffile@inputencoding\grffile@filenameencoding
129           \StringEncodingSuccessFailure{%
130             \let\grffile@filename\grffile@temp
131           }{%
132             \PackageError{grffile}{%
133               Filename conversion failed%
134             }\@ehc
135           }%
136         \fi
137       \fi
138     \fi
139   \fi
140 %   \toks@\expandafter{\grffile@filename}%
141   \edef\x{\endgroup
142 %     \noexpand\grffile@Ginclude@graphics{\the\toks@}%
143     \noexpand\grffile@Ginclude@graphics{\grffile@filename}%
144   }%
145   \x
146 }
```

\grffile@inputenc@loop

```
147 \def\grffile@inputenc@loop#1#2{%
148   \count@=#1\relax
149   \loop
150     \begingroup
151       \uccode`-\=-\count@
152       \uppercase{%
153         \endgroup
154       \edef~{\string~}%
155     }%
156   \ifnum\count@<#2\relax
157     \advance\count@\@ne
158   \repeat
159 }
```

Support for option space

\grffile@space@getbase

```
160 \def\grffile@space@getbase#1{%
161   \edef\grffile@tempa{%
162     \def\noexpand\@tempa####1#1\noexpand\@nil{%
163       \def\noexpand\Gin@base{####1}%
164     }%
165   }%
166   \grffile@IfFileExists{\filename@area\filename@base#1}{%
167     \grffile@tempa
```

```

168     \expandafter\@tempa\grffile@file@found\@nil
169     \edef\Gin@ext{#1}%
170 }{%
171 }%
172 }

173 \begingroup\expandafter\expandafter\expandafter\endgroup
174 \expandafter\ifx\csname pdf@filesize\endcsname\relax
175 \ifxetex

```

\grffile@XeTeX@ifFileExists

```

176     \long\def\grffile@XeTeX@ifFileExists#1{%
177     \openin\@inputcheck"#1" %
178     \ifeof\@inputcheck
179     \closein\@inputcheck
180     \expandafter\@secondoftwo
181     \else
182     \closein\@inputcheck
183     \expandafter\@firstoftwo
184     \fi
185 }%

```

\grffile@ifFileExists

```

186     \long\def\grffile@ifFileExists#1{%
187     \grffile@XeTeX@ifFileExists{#1}{%
188     \edef\grffile@file@found{#1}%
189     \@firstoftwo
190 }{%
191     \let\reserved@a\@secondoftwo
192     \ifx\input@path\@undefined
193     \else
194     \expandafter\@tfor\expandafter\reserved@b\expandafter
195     : \expandafter=\input@path\do{%
196     \grffile@XeTeX@ifFileExists{\reserved@b#1}{%
197     \edef\grffile@file@found{\reserved@b#1}%
198     \let\reserved@a\@firstoftwo
199     \iftrue\@break@tfor\fi
200 }-}%
201 }%
202     \fi
203     \reserved@a
204 }%
205 }%

```

\grffile@org@Gread@QTm Patch \Gread@QTm of xetex.def.

```

206     \def\grffile@org@Gread@QTm#1{%
207     \IfFileExists{\Gin@base.bb}{%
208     \Gread@eps{\Gin@base.bb}%
209 }{%
210     \G@measure@QTm{\Gin@base}{\Gin@ext}%
211 }%
212 }%

213     \ifx\Gread@QTm\grffile@org@Gread@QTm

```

\Gread@QTm

```

214     \def\Gread@QTm#1{%
215     \grffile@ifFileExists{\Gin@base.bb}{%
216     \Gread@eps{\Gin@base.bb}%
217 }{%
218     \G@measure@QTm{\Gin@base}{\Gin@ext}%
219 }%
220 }%

```



```

221     \PackageInfo{grffile}{\string\Gread@QTm\space patched}%
222 \else
223     \begingroup\expandafter\expandafter\expandafter\endgroup
224     \expandafter\ifx\csname Gread@QTm\endcsname\relax
225     \PackageWarning{grffile}{%
226     \string\Gread@QTm\space of xetex.def not found%
227     }%
228 \else

\grffile@org@Gread@QTm
229     \let\grffile@org@Gread@QTm\Gread@QTm

\Gread@QTm
230     \def\Gread@QTm#1{%
231     \let\grffile@saved@ifFileExists@ifFileExists
232     \let@ifFileExists\grffile@ifFileExists
233     \grffile@org@Gread@QTm{#1}%
234     \let@ifFileExists\grffile@saved@ifFileExists
235     }%

236 \fi
237 \fi

\grffile@org@Gread@eps
238 \let\grffile@org@Gread@eps\Gread@eps

239 \def\grffile@temp#1\immediate\openin#2 #3\grffile@nil#4\grffile@NIL{%
240 \begingroup
241 \toks@{#2}%
242 \edef\grffile@temp{\the\toks@}%
243 \def\grffile@test{\@inputcheck###1}%
244 \ifx\grffile@temp\grffile@test
245 \expandafter\@firstoftwo
246 \else
247 \expandafter\@secondoftwo
248 \fi
249 {%
250 \toks@{%
251 #1%
252 \immediate\openin\@inputcheck"###1"\relax
253 #3%
254 }%
255 \expandafter\endgroup
256 \expandafter\def\expandafter\Gread@eps
257 \expandafter##\expandafter1\expandafter{%
258 \the\toks@
259 }%
260 \PackageInfo{grffile}{%
261 \string\Gread@eps\space patched%
262 }%
263 }{%
264 \PackageWarning{grffile}{%
265 Unsupported \string\Gread@eps\space not patched%
266 }%
267 \endgroup
268 }%
269 }%
270 \expandafter\grffile@temp\Gread@eps{#1}\grffile@nil
271 \immediate\openin{} \grffile@nil\grffile@NIL

272 \else
273 \begingroup
274 \let\on@line\@empty

```

```

275     \PackageInfo{grffile}{%
276       \string\grffile@ifFileExists\space without space support,%
277       \MessageBreak
278       because pdfTeX's \string\pdffilesize\space is not available%
279       \MessageBreak
280       or XeTeX is not running%
281     }%
282 \endgroup

```

\grffile@ifFileExists

```

283 \long\def\grffile@ifFileExists#1{%
284   \ifFileExists{#1}{%
285     \let\grffile@IFE@next\@firstoftwo
286   }{%
287     \let\grffile@file@found\@file@found
288     \let\grffile@IFE@next\@secondoftwo
289   }%
290   \grffile@IFE@next
291 }%

292 \fi
293 \else

```

\grffile@ifFileExists

```

294 \long\def\grffile@ifFileExists#1{%
295   \expandafter\expandafter\expandafter
296   \ifx\expandafter\expandafter\expandafter\\pdf@filesize{#1}\\%
297     \let\reserved@a\@secondoftwo
298     \ifx\input@path\@undefined
299     \else
300       \expandafter\@tfor\expandafter\reserved@b\expandafter
301       : \expandafter=\input@path\do{%
302         \expandafter\expandafter\expandafter
303         \ifx\expandafter\expandafter\expandafter
304           \\pdf@filesize{\reserved@b#1}\\%
305         \else
306           \edef\grffile@file@found{\reserved@b#1}%
307           \let\reserved@a\@firstoftwo
308           \@break@tfor
309         \fi
310       }%
311     \fi
312     \expandafter\reserved@a
313   \else
314     \edef\grffile@file@found{#1}%
315     \expandafter\@firstoftwo
316   \fi
317 }%

318 \fi

```

\grffile@Ginclude@graphics

```

319 \def\grffile@Ginclude@graphics#1{%
320   \begingroup
321   \ifgrffile@space
322     \let\Gin@getbase\grffile@space@getbase
323   \fi
324   \ifgrffile@multidot
325     \let\filename@base\@empty
326     \let\filename@simple\grffile@filename@simple
327   \fi
328   \grffile@org@Ginclude@graphics{#1}%
329 \endgroup
330 }%

```

\grffile@filename@simple

```
331 \def\grffile@filename@simple#1.#2\{\%
332 \ifx\#2\%
333 \def\filename@base{#1}%
334 \let\filename@ext\relax
335 \else
336 \def\filename@base{}%
337 \grffile@analyze@ext{#1}.#2\}%
338 \fi
339 }
```

\grffile@analyze@ext

```
340 \def\grffile@analyze@ext#1.#2\{\%
341 \let\grffile@next\relax
342 \ifx\#2\%
343 \edef\filename@base{\filename@base#1}%
344 \let\filename@ext\relax
345 \def\grffile@next{\grffile@try@extlist}%
346 \else
347 \edef\filename@base{\filename@base #1}%
348 \edef\filename@ext{\filename@dot#2\}%
349 \expandafter\ifx\csname Gin@rule@.\filename@ext\endcsname\relax
350 \edef\filename@base{\filename@base.}%
351 \def\grffile@next{\grffile@analyze@ext#2\}%
352 \else
353 \grffile@IfFileExists{\filename@area\filename@base.\filename@ext}{%
354 % success
355 }{%
356 \edef\filename@base{\filename@base.\filename@ext}%
357 \let\filename@ext\relax
358 \def\grffile@next{\grffile@try@extlist}%
359 }%
360 \fi
361 \fi
362 \grffile@next
363 }
```

\grffile@try@extlist

```
364 \def\grffile@try@extlist{%
365 \@for\grffile@temp:=\Gin@extensions\do{%
366 \grffile@IfFileExists{\filename@area\filename@base\grffile@temp}{%
367 \ifx\filename@ext\relax
368 \edef\filename@ext{\expandafter\@gobble\grffile@temp\empty}%
369 \fi
370 }{%
371 }%
372 \ifx\filename@ext\relax
373 \expandafter\let\expandafter\filename@base\expandafter\@empty
374 \expandafter\grffile@use@last@ext\filename@base.\%
375 \fi
376 }
```

\grffile@use@last@ext

```
377 \def\grffile@use@last@ext#1.#2\{\%
378 \ifx\#2\%
379 \edef\filename@base{\expandafter\filename@dot\filename@base\}%
380 \def\filename@ext{#1}%
381 \expandafter\@gobble
382 \else
383 \edef\filename@base{\filename@base#1.}%
384 \expandafter\@firstofone
385 \fi
```

```

386  {%
387   \grffile@use@last@ext#2\}%
388  }%
389 }

```

Print current option setting

\grffile@option@status

```

390 \def\grffile@option@status#1{%
391  \begingroup
392   \let\on@line\@empty
393   \PackageInfo{grffile}{%
394     Option `#1' is %
395     \expandafter\ifx\csname ifgrffile@#1\expandafter\endcsname
396       \csname iftrue\endcsname
397     set to `true'%
398   \else
399     \expandafter\ifx\csname grffile@#1@disabled\endcsname\@empty
400     not available%
401   \else
402     set to `false'%
403   \fi
404   \fi
405  }%
406 \endgroup
407 }

408 \grffile@option@status{multidot}
409 \grffile@option@status{extendedchars}
410 \grffile@option@status{space}

```

## 2.4 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

```

411 \def\grffile@Gin@ii@graphicx[#1]#2{%
412  \def\@tempa{[]}%
413  \def\@tempb{#2}%
414  \ifx\@tempa\@tempb
415   \def\@tempa{\Gin@iii[#1] []}% hash-ok
416   \expandafter\@tempa
417  \else
418   \begingroup
419   \@tempswafalse
420   \toks@{\Gin@ii@graphicx{#2}}%
421   \setkeys{Gin}{#1}%
422   \Gin@esetsize
423   \the\toks@
424  \endgroup
425  \fi
426 }

```

\grffile@Gin@ii@fixed

```

427 \def\grffile@Gin@ii@fixed[#1]#2{%
428  \def\@tempa{[]}%
429  \begingroup
430   \toks@=#2}%
431  \edef\@tempb{\the\toks@}%
432  \expandafter\endgroup
433  \ifx\@tempa\@tempb
434   \def\@tempa{\Gin@iii[#1] []}% hash-ok

```

```

435   \expandafter\@tempa
436   \else
437   \begingroup
438     \@tempswafalse
439     \toks@{\Gininclude@graphics{#2}}%
440     \setkeys{Gin}{#1}%
441     \Gin@esetsize
442     \the\toks@
443   \endgroup
444   \fi
445 }

```

`\grffile@Fix@Gin@ii`

```

446 \def\grffile@Fix@Gin@ii{%
447   \let\Gin@ii\grffile@Gin@ii@fixed
448   \begingroup
449     \escapechar=92 %
450     \PackageInfo{grffile}{\string\Gin@ii\space of package `graphicx' fixed}%
451   \endgroup
452 }

453 \ifx\Gin@ii\grffile@Gin@ii@graphicx
454   \grffile@Fix@Gin@ii
455 \else
456   \AtBeginDocument{\grffile@Fix@Gin@ii}%
457 \fi

458 \grffile@RestoreCatcodes
459 </package>

```

## 3 Test

### 3.1 Multidot with default rule

```

460 <*test1>
461 \NeedsTeXFormat{LaTeX2e}
462 \documentclass{article}
463 \usepackage{filecontents}
464 % file grffile-test.mp:
465 % beginfig(1);
466 %   draw fullcircle scaled 2cm withpen pencircle scaled 2mm;
467 % endfig;
468 % end
469 \begin{filecontents*}{grffile-test.1}
470 %!PS
471 %%BoundingBox: -32 -32 32 32
472 %%Creator: MetaPost
473 %%CreationDate: 2004.06.16:1257
474 %%Pages: 1
475 %%EndProlog
476 %%Page: 1 1
477 0 5.66928 dtransform truncate idtransform setlinewidth pop [] 0 setdash
478 1 setlinejoin 10 setmiterlimit
479 newpath 28.34645 0 moveto
480 28.34645 7.51828 25.35938 14.72774 20.04356 20.04356 curveto
481 14.72774 25.35938 7.51828 28.34645 0 28.34645 curveto
482 -7.51828 28.34645 -14.72774 25.35938 -20.04356 20.04356 curveto
483 -25.35938 14.72774 -28.34645 7.51828 -28.34645 0 curveto
484 -28.34645 -7.51828 -25.35938 -14.72774 -20.04356 -20.04356 curveto
485 -14.72774 -25.35938 -7.51828 -28.34645 0 -28.34645 curveto
486 7.51828 -28.34645 14.72774 -25.35938 20.04356 -20.04356 curveto
487 25.35938 -14.72774 28.34645 -7.51828 28.34645 0 curveto closepath stroke

```

```

488 showpage
489 %%EOF
490 \end{filecontents*}
491 \usepackage{graphicx}
492 \usepackage[multidot]{grffile}[2008/10/13]
493 \DeclareGraphicsRule{*}{mps}{*}{} % for pdflatex
494 \begin{document}
495 \includegraphics{grffile-test.1}
496 \end{document}
497 </test1>

```

## 4 Installation

### 4.1 Download

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

[CTAN:macros/latex/contrib/oberdiek/grffile.dtx](#) The source file.

[CTAN:macros/latex/contrib/oberdiek/grffile.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  $\TeX$ :

```
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):

```

grffile.sty           → tex/latex/oberdiek/grffile.sty
grffile.pdf           → doc/latex/oberdiek/grffile.pdf
test/grffile-test1.tex → doc/latex/oberdiek/test/grffile-test1.tex
grffile.dtx           → source/latex/oberdiek/grffile.dtx

```

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`.

<sup>1</sup><ftp://ftp.ctan.org/tex-archive/>

## 4.4 Refresh file name databases

If your  $\text{T}_{\text{E}}\text{X}$  distribution (te $\text{T}_{\text{E}}\text{X}$ , mik $\text{T}_{\text{E}}\text{X}$ , ...) relies on file name databases, you must refresh these. For example, te $\text{T}_{\text{E}}\text{X}$  users run `texhash` or `mktextlsr`.

## 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  $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$ .** The `.dtx` chooses its action depending on the format:

**plain  $\text{T}_{\text{E}}\text{X}$ :** Run `docstrip` and extract the files.

**$\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$ :** Generate the documentation.

If you insist on using  $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$  for `docstrip` (really, `docstrip` does not need  $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$ ), 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 `pdf $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$` :

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

## 5 Catalogue

The following XML file can be used as source for the  [\$\text{T}\_{\text{E}}\text{X}\$  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`.

```
498 (*catalogue)
499 <?xml version='1.0' encoding='us-ascii'?>
500 <!DOCTYPE entry SYSTEM 'catalogue.dtd'>
501 <entry datestamp='$Date$' modifier='$Author$' id='grffile'>
502   <name>grffile</name>
503   <caption>Extended file name support for graphics.</caption>
504   <authorref id='auth:oberdiek' />
505   <copyright owner='Heiko Oberdiek' year='2006-2012' />
506   <license type='lppl1.3' />
507   <version number='1.16' />
508   <description>
509     The package extends the file name processing of package
510     <xref refid='graphics'>graphics</xref> to support a larger range
511     of file names. For example, the file name may contain several dots.
512
513     Or in case of <xref refid='pdftex'>pdfTeX</xref> in PDF mode the
```

```

514     file name may contain spaces.
515     <p/>
516     The package is part of the <xref refid='oberdiek'>oberdiek</xref>
517     bundle.
518 </description>
519 <documentation details='Package documentation'
520     href='ctan:/macros/latex/contrib/oberdiek/grffile.pdf' />
521 <ctan file='true' path='/macros/latex/contrib/oberdiek/grffile.dtx' />
522 <miktex location='oberdiek' />
523 <texlive location='oberdiek' />
524 <install path='/macros/latex/contrib/oberdiek/oberdiek.tds.zip' />
525 </entry>
526 </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](#)”<sup>2</sup>

### [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.

---

<sup>2</sup>Url: <http://groups.google.com/group/de.comp.text.tex/msg/b85984095d1a3c95>



[2007/11/11 v1.6]

- Use of package `pdftexcmds` for LuaTeX support.

[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<sub>Y</sub>TeX.

[2011/10/04 v1.14]

- Fix for option `space` support of X<sub>Y</sub>TeX for EPS files (`\Gread@eps`). (Bug reported by Peter Davis.)

[2011/10/17 v1.15]

- Bug fix for option `space` support of X<sub>Y</sub>TeX. Wrong usage of `\@break@tfor` fixed. (Bug reported by Martin Schröder.)

[2012/04/05 v1.16]

- Some fix for option `extendedchars`.

## 8 Index

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