

# The grfext package

Heiko Oberdiek  
<oberdiek@uni-freiburg.de>

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## Abstract

This package provides macros for adding and reordering graphics extensions of package `graphics`.

## Contents

<b>1</b>	<b>Documentation</b>	<b>2</b>
1.1	Introduction . . . . .	2
1.2	User interface . . . . .	2
1.3	Package loading . . . . .	2
1.4	plain- <code>T<sub>E</sub>X</code> . . . . .	2
<b>2</b>	<b>Implementation</b>	<b>3</b>
2.1	Relead check and identification . . . . .	3
2.2	Catcodes . . . . .	4
2.3	plain- <code>T<sub>E</sub>X</code> . . . . .	4
2.4	Add . . . . .	4
2.5	Check . . . . .	5
2.6	Remove . . . . .	6
2.7	Print . . . . .	6
<b>3</b>	<b>Test</b>	<b>7</b>
3.1	Catcode checks for loading . . . . .	7
3.2	Macro tests . . . . .	8
3.2.1	Preamble . . . . .	8
3.2.2	Detection of unwanted space . . . . .	8
3.2.3	Generic test macros . . . . .	9
3.2.4	Test for <code>\AppendGraphicsExtensions</code> . . . . .	9
3.2.5	Test for <code>\PrependGraphicsExtensions</code> . . . . .	9
3.2.6	Test for <code>\RemoveGraphicsExtensions</code> . . . . .	10
<b>4</b>	<b>Installation</b>	<b>11</b>
4.1	Download . . . . .	11
4.2	Bundle installation . . . . .	11
4.3	Package installation . . . . .	11
4.4	Refresh file name databases . . . . .	11
4.5	Some details for the interested . . . . .	12
<b>5</b>	<b>References</b>	<b>12</b>
<b>6</b>	<b>History</b>	<b>12</b>
	[2007/09/30 v1.0] . . . . .	12
<b>7</b>	<b>Index</b>	<b>12</b>

# 1 Documentation

## 1.1 Introduction

If you are not familiar with L<sup>A</sup>T<sub>E</sub>X's graphics bundle, please read its documentation `grffile` [1]. The bundle contains two packages for graphics inclusion: `graphics` and `graphicx`. The first one is loaded by the second one that adds a key value interface.

Graphics files are included in both cases by macro `\includegraphics`. The file name extension can be omitted. Then the graphics package goes through a list of known extensions until it finds the graphics file. This extension list is set by `\DeclareGraphicsExtensions`. The previous contents of the list is overwritten.

## 1.2 User interface

This package `grfext` provides macros that adds entries to the list or remove them. The list may be empty or even undefined before. It is always defined afterwards, but can be empty (especially after removing entries).

```
\AppendGraphicsExtensions * {\langle ext-list \rangle}
\PrependGraphicsExtensions * {\langle ext-list \rangle}
```

The argument `\langle ext-list \rangle` is a comma separated list whose entries are file name extensions including the dot. But first the entries are removed from `graphics`' extension list to avoid multiple occurrences of the same extension.

Then macro `\AppendGraphicsExtensions` adds the entries after the end of `graphics`' list, whereas macro `\PrependGraphicsExtensions` puts them in front of the list. The order matters if a graphics file is available in different acceptable formats. Then the first extension wins.

The star version of these commands only adds an extensions, if a specific graphics rule exists for that extension.

```
\RemoveGraphicsExtensions {\langle ext-list \rangle}
```

All occurrences of file extensions in `\langle ext-list \rangle` are removed from `graphics`' extension list.

## 1.3 Package loading

The package does not define any options. It is loaded as usual in L<sup>A</sup>T<sub>E</sub>X, e.g.:

```
\usepackage{grfext}
```

```
\PrintGraphicsExtensions
```

Macro `\PrintGraphicsExtensions` writes the current graphics extensions list in the `.log` file. The macros described before do this automatically after their operation.

## 1.4 plain-T<sub>E</sub>X

L<sup>A</sup>T<sub>E</sub>X's graphics packages can also be used with plain-T<sub>E</sub>X. The necessary basic L<sup>A</sup>T<sub>E</sub>X macros are defined in `miniltx.tex`. This package `grfext` also relies on it. Example:

```
\input miniltx.tex\relax
\def\Gin@driver{pdftex.def}
\input graphicx.sty\relax
```

```

\input grfext.sty\relax
\resetatcatcode

```

## 2 Implementation

```
1 \<package>
```

### 2.1 Reload check and identification

Reload check, especially if the package is not used with L<sup>A</sup>T<sub>E</sub>X.

```

2 \begingroup
3 \catcode44 12 % ,
4 \catcode45 12 % -
5 \catcode46 12 % .
6 \catcode58 12 % :
7 \catcode64 11 % @
8 \expandafter\let\expandafter\x\csname ver@grfext.sty\endcsname
9 \ifcase 0%
10 \ifx\x\relax % plain
11 \else
12 \ifx\x\empty % LaTeX
13 \else
14 1%
15 \fi
16 \fi
17 \else
18 \catcode35 6 % #
19 \catcode123 1 % {
20 \catcode125 2 % }
21 \expandafter\ifx\csname PackageInfo\endcsname\relax
22 \def\x#1#2{%
23 \immediate\write-1{Package #1 Info: #2.}%
24 }%
25 \else
26 \def\x#1#2{\PackageInfo{#1}{#2, stopped}}%
27 \fi
28 \x{grfext}{The package is already loaded}%
29 \endgroup
30 \expandafter\endinput
31 \fi
32 \endgroup

```

Package identification:

```

33 \begingroup
34 \catcode35 6 % #
35 \catcode40 12 % (
36 \catcode41 12 % )
37 \catcode44 12 % ,
38 \catcode45 12 % -
39 \catcode46 12 % .
40 \catcode47 12 % /
41 \catcode58 12 % :
42 \catcode64 11 % @
43 \catcode123 1 % {
44 \catcode125 2 % }
45 \expandafter\ifx\csname ProvidesPackage\endcsname\relax
46 \def\x#1#2#3[#4]{\endgroup
47 \immediate\write-1{Package: #3 #4}%
48 \xdef#1{#4}%
49 }%
50 \else
51 \def\x#1#2[#3]{\endgroup
52 #2[#3]}%

```

```

53      \ifx#1\@undefined
54      \xdef#1{#3}%
55      \fi
56      \ifx#1\relax
57      \xdef#1{#3}%
58      \fi
59    }%
60  \fi
61  \expandafter\x\csname ver@grfext.sty\endcsname
62  \ProvidesPackage{grfext}%
63  [2007/09/30 v1.0 Managing graphics extensions (H0)]

```

## 2.2 Catcodes

```

64 \begingroup
65   \catcode123 1 % {
66   \catcode125 2 % }
67   \def\x{\endgroup
68     \expandafter\edef\csname grfext@AtEnd\endcsname{%
69       \catcode35 \the\catcode35\relax
70       \catcode64 \the\catcode64\relax
71       \catcode123 \the\catcode123\relax
72       \catcode125 \the\catcode125\relax
73     }%
74   }%
75   \x
76   \catcode35 6 % #
77   \catcode64 11 % @
78   \catcode123 1 % {
79   \catcode125 2 % }
80   \def\TMP@EnsureCode#1#2{%
81     \edef\grfext@AtEnd{%
82       \grfext@AtEnd
83       \catcode#1 \the\catcode#1\relax
84     }%
85     \catcode#1 #2\relax
86   }
87   \TMP@EnsureCode{42}{12}% *
88   \TMP@EnsureCode{44}{12}% ,
89   \TMP@EnsureCode{47}{12}% /
90   \TMP@EnsureCode{58}{12}% :
91   \TMP@EnsureCode{60}{12}% <
92   \TMP@EnsureCode{61}{12}% =
93   \TMP@EnsureCode{62}{12}% >
94   \TMP@EnsureCode{91}{12}% [
95   \TMP@EnsureCode{93}{12}% ]

```

## 2.3 plain-TeX

`\@expandtwoargs` Requirement is `miniltx.tex`, but we need also L<sup>A</sup>T<sub>E</sub>X's `\@expandtwoargs`.

```

96 \@ifundefined{@expandtwoargs}{%
97   \def\@expandtwoargs#1#2#3{%
98     \edef\reserved@a{\noexpand#1{#2}{#3}}%
99     \reserved@a
100   }%
101 }{}

```

## 2.4 Add

`\AppendGraphicsExtensions`

```

102 \newcommand*\AppendGraphicsExtensions{%
103   \@ifundefined{Gin@extensions}{%

```

```

104     \let\Gin@extensions\@empty
105   }{}%
106   \@ifstar{\grfext@Append\grfext@Check}{\grfext@Append\grfext@@Add}%
107 }%

\grfext@Append

108 \def\grfext@Append#1#2{%
109   \let\grfext@Print\@gobble
110   \edef\grfext@next{%
111     \noexpand\grfext@Add\noexpand#1{%
112       \zap@space#2 \@empty
113     }{\noexpand\Gin@extensions,}{}%
114   }%
115   \grfext@next
116   \let\grfext@Print\grfext@@Print
117   \grfext@Print\AppendGraphicsExtensions
118 }

\PrependGraphicsExtensions

119 \newcommand*{\PrependGraphicsExtensions}{%
120   \@ifundefined{Gin@extensions}{%
121     \let\Gin@extensions\@empty
122   }{}%
123   \@ifstar{\grfext@Prepend\grfext@Check}{\grfext@Prepend\grfext@@Add}%
124 }%

\grfext@Prepend

125 \def\grfext@Prepend#1#2{%
126   \let\grfext@Print\@gobble
127   \edef\grfext@next{%
128     \noexpand\grfext@Add\noexpand#1{%
129       \zap@space#2 \@empty
130     }{}{\noexpand\Gin@extensions}%
131   }%
132   \grfext@next
133   \let\grfext@Print\grfext@@Print
134   \grfext@Print\PrependGraphicsExtensions
135 }

\grfext@Add

136 \def\grfext@Add#1#2{%
137   #1{#2}%
138 }

\grfext@@Add

139 \def\grfext@@Add#1#2#3{%
140   \RemoveGraphicsExtensions{#1}%
141   \ifx\Gin@extensions\@empty
142     \def\Gin@extensions{#1}%
143   \else
144     \edef\Gin@extensions{#2#1#3}%
145   \fi
146 }

```

## 2.5 Check

```

\grfext@Check

147 \def\grfext@Check#1{%
148   \let\grfext@tmp\@empty
149   \@for\grfext@ext:=#1\do{%
150     \@ifundefined{Gin@rule@\grfext@ext}{%

```

```

151 }{%
152   \ifx\grfext@tmp\@empty
153     \let\grfext@tmp\grfext@ext
154   \else
155     \edef\grfext@tmp{\grfext@tmp,\grfext@ext}%
156   \fi
157 }%
158 }%
159 \ifx\grfext@tmp\@empty
160   \def\grfext@next##1##2{%
161 \else
162   \edef\grfext@next{%
163     \noexpand\grfext@@Add{\grfext@tmp}%
164   }%
165 \fi
166 \grfext@next
167 }

```

## 2.6 Remove

\RemoveGraphicsExtensions

```

168 \newcommand*{\RemoveGraphicsExtensions}[1]{%
169   \@ifundefined{Gin@extensions}{%
170     \def\Gin@extensions{%
171 }{%
172   \edef\grfext@tmp{\zap@space#1 \@empty}%
173   \@for\grfext@ext:=\grfext@tmp\do{%
174     \def\grfext@next{%
175       \let\grfext@tmp\Gin@extensions
176       \@expandtwoargs
177       \@removeelement\grfext@ext\Gin@extensions\Gin@extensions
178       \ifx\grfext@tmp\Gin@extensions
179         \let\grfext@next\relax
180       \fi
181       \grfext@next
182     }%
183     \grfext@next
184   }%
185 }%
186 \grfext@Print\RemoveGraphicsExtensions
187 }

```

## 2.7 Print

188 \RequirePackage{infwarerr}[2007/09/09]

\PrintGraphicsExtensions

```

189 \def\PrintGraphicsExtensions{%
190   \grfext@Print\PrintGraphicsExtensions
191 }

```

\grfext@Print

```

192 \def\grfext@Print#1{%
193   \@PackageInfo{grfext}{%
194     Graphics extension search list:\MessageBreak
195     \@ifundefined{Gin@extensions}{%
196       <unavailable>%
197     }{%
198       [\Gin@extensions]%
199     }\MessageBreak
200     \string#1%
201   }%

```

```

202 }

\grfext@@Print

203 \let\grfext@@Print\grfext@Print

204 \grfext@AtEnd
205 \end{package}

```

### 3 Test

Load miniltx for standard catcode test.

```

206 \test1
207 \input miniltx.tex\relax
208 \resetatcatcode
209 \end{test1}

```

#### 3.1 Catcode checks for loading

```

210 \test1

211 \catcode'\{=1 %
212 \catcode'\}=2 %
213 \catcode'\#=6 %
214 \catcode'\@=11 %
215 \expandafter\ifx\csname count@\endcsname\relax
216   \countdef\count@=255 %
217 \fi
218 \expandafter\ifx\csname @gobble\endcsname\relax
219   \long\def@gobble#1{}%
220 \fi
221 \expandafter\ifx\csname @firstofone\endcsname\relax
222   \long\def@firstofone#1{#1}%
223 \fi
224 \expandafter\ifx\csname loop\endcsname\relax
225   \expandafter\@firstofone
226 \else
227   \expandafter\@gobble
228 \fi
229 {%
230   \def\loop#1\repeat{%
231     \def\body{#1}%
232     \iterate
233   }%
234   \def\iterate{%
235     \body
236     \let\next\iterate
237   \else
238     \let\next\relax
239   \fi
240   \next
241 }%
242 \let\repeat=\fi
243 }%
244 \def\RestoreCatcodes{
245   \count@=0 %
246   \loop
247     \edef\RestoreCatcodes{%
248       \RestoreCatcodes
249       \catcode\the\count@=\the\catcode\count@\relax
250     }%
251   \ifnum\count@<255 %
252     \advance\count@ 1 %

```

```

253 \repeat
254
255 \def\RangeCatcodeInvalid#1#2{%
256   \count@=#1\relax
257   \loop
258     \catcode\count@=15 %
259   \ifnum\count@<#2\relax
260     \advance\count@ 1 %
261   \repeat
262 }
263 \expandafter\ifx\csname LoadCommand\endcsname\relax
264   \def\LoadCommand{\input grfext.sty\relax}%
265 \fi
266 \def\Test{%
267   \RangeCatcodeInvalid{0}{47}%
268   \RangeCatcodeInvalid{58}{64}%
269   \RangeCatcodeInvalid{91}{96}%
270   \RangeCatcodeInvalid{123}{255}%
271   \catcode'\@=12 %
272   \catcode'\=0 %
273   \catcode'\{=1 %
274   \catcode'\}=2 %
275   \catcode'\#=6 %
276   \catcode'\[=12 %
277   \catcode'\]=12 %
278   \catcode'\%=14 %
279   \catcode'\ =10 %
280   \catcode13=5 %
281   \LoadCommand
282   \RestoreCatcodes
283 }
284 \Test
285 \csname @@end\endcsname
286 \end
287 </test1>

```

## 3.2 Macro tests

### 3.2.1 Preamble

```

288 (*test2)
289 \NeedsTeXFormat{LaTeX2e}
290 \nofiles
291 \documentclass{article}
292 \usepackage[pdftex]{graphics}
293 \usepackage{grfext}[2007/09/30]
294 \usepackage{qstest}
295 \IncludeTests{*}
296 \LogTests{log}{*}{*}
297 \makeatletter

```

### 3.2.2 Detection of unwanted space

```

298 \let\orig@qstest\qstest
299 \let\orig@endqstest\endqstest
300 \def\qstest#1#2{%
301   \orig@qstest{#1}{#2}%
302   \setbox0\hbox\bgroup\begingroup\ignorespaces
303 }
304 \def\endqstest{%
305   \endgroup\egroup
306   \Expect*{\the\wd0}{0.0pt}%
307   \orig@endqstest
308 }

```

### 3.2.3 Generic test macros

```

309 \def\Test{\@ifnextchar\bgroup\TestInitList\TestInitCmd}%
310 \def\TestInitList#1{%
311   \def\Gin@extensions{#1}%
312   \@Test
313 }
314 \def\TestInitCmd#1{%
315   \let\Gin@extensions#1\relax
316   \@Test
317 }
318 \def\@Test#1#2{%
319   \TestCmd{#1}%
320   \expandafter\Expect\expandafter*\Gin@extensions{#2}%
321 }

```

### 3.2.4 Test for \AppendGraphicsExtensions

```

322 \begin{qstest}{AppendGraphicsExtensions}{AppendGraphicsExtensions}
323   \let\TestCmd\AppendGraphicsExtensions
324   \Test\@undefined{.test}{.test}%
325   \Test\relax{.test}{.test}%
326   \Test{}{.test}{.test}%
327   \Test{.foo}{.test}{.foo,.test}%
328   \Test{.foo,.bar}{.test}{.foo,.bar,.test}%
329   \Test{.test}{.test}{.test}%
330   \Test{.foo,.test}{.test}{.foo,.test}%
331   \Test{.test,.foo}{.test}{.foo,.test}%
332   \Test{.foo,.test,.bar}{.test}{.foo,.bar,.test}%
333   \Test{.foo}{.test,.bar}{.foo,.test,.bar}%
334   \Test{.foo}{.test,.foo}{.test,.foo}%
335   \Test{.foo}{.test,.bar,.x,.y}{.foo,.test,.bar,.x,.y}%
336   \def\TestCmd{\AppendGraphicsExtensions*}%
337   \Test\@undefined{.test}{}%
338   \Test\relax{.test}{}%
339   \Test{}{.test}{}%
340   \Test{.test}{.test}{.test}%
341   \Test{.foo}{.test}{.foo}%
342   \Test{.foo,.bar}{.test}{.foo,.bar}%
343   \Test{.test}{.test}{.test}%
344   \Test{.foo,.test}{.test}{.foo,.test}%
345   \Test{.test,.foo}{.test}{.test,.foo}%
346   \Test{.foo,.test,.bar}{.test}{.foo,.test,.bar}%
347   \Test{.foo}{.test,.bar}{.foo}%
348   \Test{.foo}{.test,.foo}{.foo}%
349   \DeclareGraphicsRule{.test}{test}{.test}{}%
350   \Test\@undefined{.test}{.test}%
351   \Test\relax{.test}{.test}%
352   \Test{}{.test}{.test}%
353   \Test{.foo}{.test}{.foo,.test}%
354   \Test{.foo,.bar}{.test}{.foo,.bar,.test}%
355   \Test{.test}{.test}{.test}%
356   \Test{.foo,.test}{.test}{.foo,.test}%
357   \Test{.test,.foo}{.test}{.foo,.test}%
358   \Test{.foo,.test,.bar}{.test}{.foo,.bar,.test}%
359   \Test{.foo}{.test,.bar}{.foo,.test}%
360   \Test{.foo}{.test,.foo}{.foo,.test}%
361   \DeclareGraphicsRule{.bar}{bar}{.bar}{}%
362   \Test{.foo}{.test,.bar}{.foo,.test,.bar}%
363   \Test{.bar}{.test,.bar}{.test,.bar}%
364   \Test{.bar}{.bar,.test}{.bar,.test}%
365 \end{qstest}

```

### 3.2.5 Test for \PrependGraphicsExtensions

```

366 \begin{qstest}{PrependGraphicsExtensions}{PrependGraphicsExtensions}
367   \let\TestCmd\PrependGraphicsExtensions
368   \Test\@undefined{.test}{.test}%
369   \Test\relax{.test}{.test}%
370   \Test{}{.test}{.test}%
371   \Test{.foo}{.test}{.test,.foo}%
372   \Test{.foo,.bar}{.test}{.test,.foo,.bar}%
373   \Test{.test}{.test}{.test}%
374   \Test{.foo,.test}{.test}{.test,.foo}%
375   \Test{.test,.foo}{.test}{.test,.foo}%
376   \Test{.foo,.test,.bar}{.test}{.test,.foo,.bar}%
377   \Test{.foo}{.test,.bar}{.test,.bar,.foo}%
378   \Test{.foo}{.test,.foo}{.test,.foo}%
379   \Test{.foo}{.test,.bar,.x,.y}{.test,.bar,.x,.y,.foo}%
380   \def\TestCmd{PrependGraphicsExtensions}%
381   \Test\@undefined{.test}{}%
382   \Test\relax{.test}{}%
383   \Test{}{.test}{}%
384   \Test{.test}{.test}{.test}%
385   \Test{.foo}{.test}{.foo}%
386   \Test{.foo,.bar}{.test}{.foo,.bar}%
387   \Test{.test}{.test}{.test}%
388   \Test{.foo,.test}{.test}{.foo,.test}%
389   \Test{.test,.foo}{.test}{.test,.foo}%
390   \Test{.foo,.test,.bar}{.test}{.foo,.test,.bar}%
391   \DeclareGraphicsRule{.test}{test}{.test}{}%
392   \Test\@undefined{.test}{.test}%
393   \Test\relax{.test}{.test}%
394   \Test{}{.test}{.test}%
395   \Test{.foo}{.test}{.test,.foo}%
396   \Test{.foo,.bar}{.test}{.test,.foo,.bar}%
397   \Test{.test}{.test}{.test}%
398   \Test{.foo,.test}{.test}{.test,.foo}%
399   \Test{.test,.foo}{.test}{.test,.foo}%
400   \Test{.foo,.test,.bar}{.test}{.test,.foo,.bar}%
401   \Test{.foo}{.test,.bar}{.test,.foo}%
402   \Test{.foo}{.test,.foo}{.test,.foo}%
403   \DeclareGraphicsRule{.bar}{bar}{.bar}{}%
404   \Test{.foo}{.test,.bar}{.test,.bar,.foo}%
405   \Test{.bar}{.test,.bar}{.test,.bar}%
406   \Test{.bar}{.bar,.test}{.bar,.test}%
407 \end{qstest}

```

### 3.2.6 Test for \RemoveGraphicsExtensions

```

408 \begin{qstest}{RemoveGraphicsExtensions}{RemoveGraphicsExtensions}
409   \let\TestCmd\RemoveGraphicsExtensions
410   \Test\@undefined{.test}{}%
411   \Test\relax{.test}{}%
412   \Test{}{.test}{}%
413   \Test{.foo}{.test}{.foo}%
414   \Test{.foo,.bar}{.test}{.foo,.bar}%
415   \Test{.test}{.test}{}%
416   \Test{.foo,.test}{.test}{.foo}%
417   \Test{.test,.foo}{.test}{.foo}%
418   \Test{.foo,.test,.bar}{.test}{.foo,.bar}%
419   \Test{.test,.test}{.test}{}%
420   \Test{.foo,.test,.bar,.test,.test,.bar}{.test}{.foo,.bar,.bar}%
421   \Test{.foo,.test,.bar,.foo,.test,.bar}{.test,.bar}{.foo,.foo}%
422   \Test{.foo,.test,.bar,.foo,.test,.bar}{.test,.bar}{.foo,.foo}%
423 \end{qstest}

424 \begin{document}
425 \end{document}

```

## 4 Installation

### 4.1 Download

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

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

[CTAN:macros/latex/contrib/oberdiek/grfext.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 T<sub>E</sub>X 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<sub>E</sub>X:

```
tex grfext.dtx
```

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

```
grfext.sty      → tex/latex/oberdiek/grfext.sty
grfext.pdf      → doc/latex/oberdiek/grfext.pdf
test/grfext-test1.tex → doc/latex/oberdiek/test/grfext-test1.tex
test/grfext-test2.tex → doc/latex/oberdiek/test/grfext-test2.tex
grfext.dtx      → source/latex/oberdiek/grfext.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`.

### 4.4 Refresh file name databases

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

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

## 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 grfext.pdf unpack_files output .
```

**Unpacking with  $\LaTeX$ .** The `.dtx` chooses its action depending on the format:

**plain- $\TeX$ :** 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{grfext.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 $\LaTeX$` :

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

## 5 References

- [1] David Carlisle, Sebastian Rahtz: *The graphics package*; 2006/02/20 v1.0o;  
[CTAN:macros/latex/required/graphics/graphics.dtx](http://CTAN:macros/latex/required/graphics/graphics.dtx).

## 6 History

[2007/09/30 v1.0]

- First public version,

## 7 Index

Numbers written in *italic* refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; numbers in roman refer to the code lines where the entry is used.

Symbols		121, 129, 141, 148, 152, 159, 172
<code>\#</code> .....	213, 275	<code>\@expandtwoargs</code> ..... 96, 176
<code>\%</code> .....	278	<code>\@firstofone</code> ..... 222, 225
<code>\@</code> .....	214, 271	<code>\@for</code> ..... 149, 173
<code>\@PackageInfo</code> .....	193	<code>\@gobble</code> ..... 109, 126, 219, 227
<code>\@Test</code> .....	312, 316, 318	<code>\@ifnextchar</code> ..... 309
<code>\@empty</code> .....	104, 112,	<code>\@ifstar</code> ..... 106, 123

<code>\@ifundefined</code>	96, 103, 120, 150, 169, 195	<code>\grfext@Print</code>	109, 116, 117, 126, 133, 134, 186, 190, 192, 203
<code>\@removeelement</code>	177	<code>\grfext@tmp</code>	148, 152, 153, 155, 159, 163, 172, 173, 175, 178
<code>\@undefined</code>	53, 324, 337, 350, 368, 381, 392, 410		
<code>\[</code>	276	<b>H</b>	
<code>\]</code>	272	<code>\hbox</code>	302
<code>\{</code>	211, 273	<b>I</b>	
<code>\}</code>	212, 274	<code>\ifcase</code>	9
<code>\]</code>	277	<code>\ifnum</code>	251, 259
		<code>\ifx</code>	10, 12, 21, 45, 53, 56, 141, 152, 159, 178, 215, 218, 221, 224, 263
<code>\_</code>	279	<code>\ignorespaces</code>	302
<b>A</b>		<code>\immediate</code>	23, 47
<code>\advance</code>	252, 260	<code>\IncludeTests</code>	295
<code>\AppendGraphicsExtensions</code>	2, 102, 117, 323, 336	<code>\input</code>	207, 264
		<code>\iterate</code>	232, 234, 236
<b>B</b>		<b>L</b>	
<code>\begin</code>	322, 366, 408, 424	<code>\LoadCommand</code>	264, 281
<code>\body</code>	231, 235	<code>\LogTests</code>	296
<b>C</b>		<code>\loop</code>	230, 246, 257
<code>\catcode</code>	3, 4, 5, 6, 7, 18, 19, 20, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 65, 66, 69, 70, 71, 72, 76, 77, 78, 79, 83, 85, 211, 212, 213, 214, 249, 258, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280	<b>M</b>	
<code>\count@</code>	216, 245, 249, 251, 252, 256, 258, 259, 260	<code>\makeatletter</code>	297
<code>\countdef</code>	216	<code>\MessageBreak</code>	194, 199
<code>\csname</code>	8, 21, 45, 61, 68, 215, 218, 221, 224, 263, 285	<b>N</b>	
<b>D</b>		<code>\NeedsTeXFormat</code>	289
<code>\DeclareGraphicsRule</code>	349, 361, 391, 403	<code>\newcommand</code>	102, 119, 168
<code>\do</code>	149, 173	<code>\next</code>	236, 238, 240
<code>\documentclass</code>	291	<code>\nofiles</code>	290
<b>E</b>		<b>O</b>	
<code>\empty</code>	12	<code>\orig@endqstest</code>	299, 307
<code>\end</code>	286, 365, 407, 423, 425	<code>\orig@qstest</code>	298, 301
<code>\endcsname</code>	8, 21, 45, 61, 68, 215, 218, 221, 224, 263, 285	<b>P</b>	
<code>\endinput</code>	30	<code>\PackageInfo</code>	26
<code>\endqstest</code>	299, 304	<code>\PrependGraphicsExtensions</code>	119, 134, 367, 380
<code>\Expect</code>	306, 320	<code>\PrintGraphicsExtensions</code>	2, 189
<b>G</b>		<code>\ProvidesPackage</code>	62
<code>\Gin@extensions</code>	104, 113, 121, 130, 141, 142, 144, 170, 175, 177, 178, 198, 311, 315, 320	<b>Q</b>	
<code>\grfext@@Add</code>	106, 123, 139, 163	<code>\qstest</code>	298, 300
<code>\grfext@@Print</code>	116, 133, 203	<b>R</b>	
<code>\grfext@Add</code>	111, 128, 136	<code>\RangeCatcodeInvalid</code>	255, 267, 268, 269, 270
<code>\grfext@Append</code>	106, 108	<code>\RemoveGraphicsExtensions</code>	2, 140, 168, 409
<code>\grfext@AtEnd</code>	81, 82, 204	<code>\repeat</code>	230, 242, 253, 261
<code>\grfext@Check</code>	106, 123, 147	<code>\RequirePackage</code>	188
<code>\grfext@ext</code>	149, 150, 153, 155, 173, 177	<code>\reserved@a</code>	98, 99
<code>\grfext@next</code>	110, 115, 127, 132, 160, 162, 166, 174, 179, 181, 183	<code>\resetatcatcode</code>	208
<code>\grfext@Prepend</code>	123, 125	<code>\RestoreCatcodes</code>	244, 247, 248, 282
		<b>S</b>	
		<code>\setbox</code>	302
		<b>T</b>	
		<code>\Test</code>	266, 284, 309, 324, 325, 326, 327, 328, 329, 330, 331,

332, 333, 334, 335, 337, 338,	\the . . . . . 69, 70, 71, 72, 83, 249, 306
339, 340, 341, 342, 343, 344,	\TMP@EnsureCode . . . . . 80,
345, 346, 347, 348, 350, 351,	87, 88, 89, 90, 91, 92, 93, 94, 95
352, 353, 354, 355, 356, 357,	
358, 359, 360, 362, 363, 364,	<b>U</b>
368, 369, 370, 371, 372, 373,	\usepackage . . . . . 292, 293, 294
374, 375, 376, 377, 378, 379,	
381, 382, 383, 384, 385, 386,	<b>W</b>
387, 388, 389, 390, 392, 393,	\wd . . . . . 306
394, 395, 396, 397, 398, 399,	\write . . . . . 23, 47
400, 401, 402, 404, 405, 406,	
410, 411, 412, 413, 414, 415,	<b>X</b>
416, 417, 418, 419, 420, 421, 422	\x 8, 10, 12, 22, 26, 28, 46, 51, 61, 67, 75
\TestCmd . . 319, 323, 336, 367, 380, 409	
\TestInitCmd . . . . . 309, 314	<b>Z</b>
\TestInitList . . . . . 309, 310	\zap@space . . . . . 112, 129, 172