

The `figlatex` package*

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Abstract

This package allows \LaTeX to load XFig and SVG figures (or subfigures) with the `\includegraphics` command.

1 Introduction

1.1 General

`\includegraphics` This package allows to load XFig figures from \LaTeX sources with the `\includegraphics` command from the `graphicx` package:

```
\includegraphics[width=\linewidth]{myfig.fig}
```

This package does not convert by itself XFig figures (see package `texdepends` for that). It only diverts the loading functions so that \LaTeX includes the `.pstex_t` or the `.pdftex_t`.

1.2 Options

Available options for this package:

`debug` **debug** : more messages written while compiling

`figlatex.cfg` When the package is loaded, it tries to read a `figlatex.cfg` file. This file can
`\debug` contains `\debug` to enable this option site wide.

1.3 Subfigures

Sometimes, several figures made with XFig should be similar. It is possible to make only one XFig figure and then create subfigures which contains only a subset of the depths of the original figure.

*This file has version number v2.4.1, last revised 2020/07/10.

2 Implementation

2.1 figlatex

```
1 <*package>
    Options definitions
debug
2 \newif\ifFL@debug
3 \DeclareOption{debug}{%
4   \global\FL@debugtrue%
5 }

    We load the config file if it exists. Commands for the config file are local.
6 {

\debug
7   \def\debug{%
8     \ExecuteOptions{debug}%
9   }

10  \InputIfFileExists{figlatex.cfg}{%
11    \typeout{*****^J%
12              * Local config file figlatex.cfg used *^J%
13              *****}
14  }{%
15    \typeout{Found no configuration file for figlatex}
16  }
17 }

    Run the options
18 \ProcessOptions
    and requires some packages
19 \RequirePackage{ifthen}
20 \RequirePackage{ifpdf}
21 \RequirePackage{graphicx}
22 \RequirePackage{xstring}

    XFig uses heavily the color package
23 \RequirePackage{color}
24 \RequirePackage{epstopdf}

\FL@dmessage Write the message only if debug is set
25 \def\FL@dmessage#1{%
26   \ifFL@debug%
27     \message{#1}%
28   \fi%
29 }
```

```

\Ginclude@rawtex .pstex_t or .pdfTeX_t are loaded with \input
30 \def\Ginclude@rawtex#1{%
31   \FL@dmmessage{<#1>}%
32   \bgroup%
33   \def\@tempa{!}%
34   \ifx\Gin@scaley\@tempa%
35     \let\Gin@scaley\Gin@scalex%
36   \else%
37     \ifx\Gin@scalex\@tempa\let\Gin@scalex\Gin@scaley\fi%
38   \fi%
39   \hbox{%
40     \Gscale@box{\Gin@scalex}\Gin@scaley}%
41   \def\Gin@scalex{1}%
42   \let\Gin@scaley\Gin@exclamation% needed for pdfLaTeX
43   \FL@dmmessage{<loading rawTeX #1>}%
44   \input{#1}}}%
45 \egroup}

\Ginclude@figtex .fig are loaded with \includegraphics after modifying the name
46 \def\Ginclude@figtex#1{%
47   \message{<#1>}%
48   \bgroup%
49   \xdef\FL@filename{#1}%
50   \filename@parse{\FL@filename}%
51   \xdef\FL@filename{\filename@area\filename@base.\FL@figext}%
52   \FL@dmmessage{<****loading fig \FL@filename>}%
53   \FL@includerawTeXgraphics[]{\FL@filename}%
54   \egroup}

\Gread@figtex .fig bounding box is the same as the corresponding .pstex_t or .pdfTeX_t
55 \newcommand{\Gread@figtex}[1]{%
56   %\typeout{Oh, file exists #1}%
57   \Gread@rawTeX{#1}%
58 }

\Ginclude@svgtx .svg are loaded with \includegraphics after modifying the name
59 \def\Ginclude@svgtx#1{%
60   \message{<#1>}%
61   \bgroup%
62   \xdef\FL@filename{#1}%
63   \filename@parse{\FL@filename}%
64   \xdef\FL@filename{\filename@area\filename@base.\FL@svgext}%
65   \FL@dmmessage{<****loading svg \FL@filename>}%
66   \FL@includerawTeXgraphics[]{\FL@filename}%
67   \egroup}

\Gread@svgtx .svg bounding box is the same as the corresponding .pstex_t or .pdfTeX_t
68 \newcommand{\Gread@svgtx}[1]{%
69   %\typeout{Oh, file exists #1}%

```

```

70 \Gread@rawtex{#1}%
71 }

```

Declare the right things depending whether we build a DVI or a PDF file.

```

72 \ifpdf

```

PDF part

```

73 \def\FL@figext{pdfTeX_t}%
74 \def\FL@svgext{pdfTeX_t}%

```

To read bounding box information:

```

75 \let\Gread@rawtex\Gread@pdf%
76 \DeclareGraphicsRule{.pdfTeX_t}{pdf}{*}{}%
77 \DeclareGraphicsRule{.pdfTeX_t}{rawTeX}{.pdfTeX}{}%
78 \DeclareGraphicsRule{.fig}{figTeX}{.pdfTeX}{}%
79 \DeclareGraphicsRule{.svg}{svgTeX}{.pdfTeX}{}%
80 \else

```

DVI part

```

81 \def\FL@figext{pSTeX_t}%
82 \def\FL@svgext{pSTeX_t}%

```

To read bounding box information:

```

83 \let\Gread@rawtex\Gread@eps%
84 \DeclareGraphicsRule{.pSTeX_t}{eps}{*}{}%
85 \DeclareGraphicsRule{.pSTeX_t}{rawTeX}{.pSTeX}{}%
86 \DeclareGraphicsRule{.fig}{figTeX}{.pSTeX}{}%
87 \DeclareGraphicsRule{.svg}{svgTeX}{.pSTeX}{}%
88 \fi

```

This command is not really necessary here (code could be added in `\Ginclude@figTeX`). However, it's very convenient for the `texdepends` package.

```

89 \newcommand{\FL@includerawTeXgraphics}[2][{}]{%
90 \includegraphics[#1]{#2}%
91 }

```

Addition of the `subfig=name` key for the options of the `\includegraphics[...]{...}` macro.

```

92 \def\FL@exclamation{!}%
93 \let\FL@subfig@name\FL@exclamation%
94 \define@key{Gin}{subfig}{%
95 \typeout{using subfig #1}%
96 \def\FL@subfig@name{#1}%
97 }
98 \def\FL@sepdefault{_%

```

We should check if the `#1` file exists (`XXX.subfig`) This is not yet done but `texdepends` divert this macro to record the dependency

```

99 \def\FL@subfig@check#1{%
100 }

```

We divert `\Gin@getbase` to modify the file name if the `subfig` key is used.

```

101 \def\FL@Gin@getbase#1{%
102   \typeout{In getbase #1 with \FL@subfig@name / \FL@exclamation}%
103   \ifx\FL@subfig@name\FL@exclamation%
104   \else%
105   \typeout{getbase lets go (\filename@area)(\filename@base)(#1)}%
106   \IfStrEq*{#1}{.fig}{%
107     % If we're including a subfig
108     \IfFileExists{\filename@area\filename@base#1}{%
109       % If the original .fig file exists, just change the name so that
110       % it comprises the full path (file has been looked into
111       % texgraphics, etc.)
112       % Warning: the found filename is quoted :-(
113       \StrBetween[1,2]{\@filef@und}{"}{"}[\FL@filename@unquoted]
114       \filename@parse{\FL@filename@unquoted}%
115       % Check if the subfig file exists
116       \FL@subfig@check{\filename@area\filename@base.subfig}%
117     }{%
118       % Else, write a warning (LaTeX will warn as well but it doesn't
119       % hurt)
120       \PackageWarning{figlatex}{No file
121         '\filename@area\filename@base#1'}%
122     }
123     % Add the subfig suffix to the fig name.
124     \edef\filename@base{\filename@base\FL@sepdefault\FL@subfig@name}%
125   }{%
126   }%
127   \IfStrEq*{#1}{.svg}{%
128     % If we're including a subfig
129     \IfFileExists{\filename@area\filename@base#1}{%
130       % If the original .svg file exists, just change the name so that
131       % it comprises the full path (file has been looked into
132       % texgraphics, etc.)
133       % Warning: the found filename is quoted :-(
134       \StrBetween[1,2]{\@filef@und}{"}{"}[\FL@filename@unquoted]
135       \filename@parse{\FL@filename@unquoted}%
136       % Check if the subfig file exists
137       \FL@subfig@check{\filename@area\filename@base.subfig}%
138     }{%
139       % Else, write a warning (LaTeX will warn as well but it doesn't
140       % hurt)
141       \PackageWarning{figlatex}{No file
142         '\filename@area\filename@base#1'}%
143     }
144     % Add the subfig suffix to the svg name.
145     \edef\filename@base{\filename@base\FL@sepdefault\FL@subfig@name}%
146   }{%
147   }%
148   \fi%

```

```

149 \FL@orig@Gin@getbase{#1}%
150 }
151 \let\FL@orig@Gin@getbase\Gin@getbase
152 \let\Gin@getbase\FL@Gin@getbase
153
154 %\@namedef{Gin@rule@.fig}#1{%
155
156 %}
157 </package>

The sample config file figlatex.cfg...
158 <*config>

159 %\debug
160 </config>

```

2.2 texgraphicx

```

161 <*compat>

texgraphicx.sty was only a wrapper around figlatex.sty. Now, an error is
generated.
162 \PackageError{texgraphicx}{'texgraphicx' is now
163   gone\MessageBreak%
164   Please, switching to 'figlatex'
165   package\MessageBreak}{%}
166 \ProcessOptions
167 </compat>

```

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		
\@namedef	.....	154
D		
\debug	.....	<i>1</i> , <u><i>7</i></u> , 159
debug (option)	.....	<i>1</i> , <u><i>2</i></u>
\DeclareGraphicsRule	..	76–79, 84–87
F		
figlatex.cfg (option)	.....	<i>1</i>
\FL@debugtrue	.....	4
\FL@dmessage	.....	<u>25</u> , 31, 43, 52, 65
\FL@exclamation	....	92, 93, 102, 103
\FL@figext	.....	51, 73, 81
\FL@filename	.....	49–53, 62–66
\FL@filename@unquoted	.....	113, 114, 134, 135
\FL@Gin@getbase	.....	101, 152
\FL@includerawtexgraphics		53, 66, 89
\FL@orig@Gin@getbase	.....	149, 151
\FL@sepdefault	.....	98, 124, 145
\FL@subfig@check	.....	99, 116, 137
\FL@subfig@name	.....	93, 96, 102, 103, 124, 145
\FL@svgext	.....	64, 74, 82

G		<code>debug</code> 1
<code>\Ginclude@figtex</code>	46	<code>figlatex.cfg</code> 1
<code>\Ginclude@rawtex</code>	30	
<code>\Ginclude@svgtex</code>	59	P
<code>\Gread@figtex</code>	55	<code>\PackageError</code> 162
<code>\Gread@rawtex</code>	57, 70, 75, 83	
<code>\Gread@svgtex</code>	68	S
I		<code>\StrBetween</code> 113, 134
<code>\ifFL@debug</code>	2, 26	
<code>\IfStrEq</code>	106, 127	
<code>\includegraphics</code>	1, 90	
O		
options:		
<code>debug</code>	2	

Change History

v0.1.1		figlatex.dtx 1
General: Version 0.1.1 at last . . .	1	
v0.1.2		v2.2.3
General: Manage index/glossary .	1	General: No changes in
v0.1.3		figlatex.dtx 1
General: Better support for subfig		v2.2.4
with texdepends	1	General: Add missing required
v0.1.4		package 'ifthen' 1
General: Support for svg with		Fix python syntax for python3 . . .
texdepends	1	1
v2.2.0		v2.2.5
General: No changes in		General: No changes in
figlatex.dtx	1	figlatex.dtx 1
v2.2.1		v2.4.0
General: No changes in		General: Fix path handling for
figlatex.dtx	1	subfig and new core LaTeX . . .
v2.2.2		1
General: No changes in		v2.4.1
		General: No changes in
		figlatex.dtx 1