

The `gnuplottex` package^{*}

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1 Introduction

This package allows you to include gnuplot graphs in your L^AT_EX documents.

The gnuplot code is extracted from the document and written to `.gnuplot` files. Then, if shell escape is used, the graph files are automatically processed to graphics or L^AT_EX code files which will then be included in the document. If shell escape isn't used, the user will have to manually convert the files by running gnuplot on the extracted `.gnuplot` files.

Shell escape is available in the web2c T_EX compiler, it allows the execution of shell code during the compilation of a T_EX document. It's disabled by default, you'll have to edit your configuration files or give the `-shell-escape` option to `latex`.

The package also allows you to include gnuplot code in a file verbatim, generating and including the plot automatically.

If you find a bug, please open an issue at <https://github.com/larskotthoff/gnuplottex/issues>.

2 Requirements

To use gnuplottex, you'll need the `graphicx`, `latexsym`, `keyval`, `ifthen`, and `moreverb` packages and, of course, `gnuplot`. If you want to use tikz-terminal you also have to use the `gnuplot-lua-tikz`-package from gnuplot. If you want to use the eepic-terminal, you'll need the `eepic-`, the `epic-` and (if you're not using dvips or dvipdfm) the `eepicemu`-package. If you use beamer, be aware that you have to call the frame with `\begin{frame}[fragile]`.

3 Usage

To load the package, simply write `\usepackage{gnuplottex}` in your document preamble. Options that can be passed to the package are

^{*}This document corresponds to gnuplottex v0.9.4, dated 2019/12/22.

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[*<shell>*] Use shell escape to automatically generate the graphs from the gnuplot source files. This is the default. Normally, you don't need to specify this option.

[*<noshell>*] Don't use shell escape, graphs must be generated manually.

[*<miktex>*] We're using mikTeX.

[*<siunitx>*] Use `siunitx` to typeset numbers in the graphs. You need to load the `siunitx` package before `gnuplottex` for this to work. If the gnuplot terminal does not support TeX, a warning will be given and the functionality not used.

[*<subfolder>*] Put the generated graphs in a "gnuplottex" subfolder, which will be created automatically.

[*<cleanup>*] Delete the `.gnuplot` files after conversion.

In addition, you can set `\gnuplotexe` to the path to the gnuplot executable. Normally, you don't need to do this; use this option only if LATEX doesn't find gnuplot. For example:

```
\def\gnuplotexe{/opt/local/bin/gnuplot}
```

The following environment can be used to include graphs:

`gnuplot` Within this environment, you can specify arbitrary gnuplot code, for example

```
plot sin(x).
```

The code necessary to write the plot to a file will be inserted by this package. It adds 'set terminal *<terminal>*' and the name of the output file. The terminal can be specified by the user and defaults to `latex`. It may be set to anything supported by gnuplot. If set to a terminal which produces TeX output, such as `latex`, `tex`, `epslatex`, or `pstricks`, the file processed by gnuplot will be included with the `\include` command, else the `\includegraphics` command is used. The file extension of the intermediate file is in some cases different from the terminal name, this is taken care of for most common terminals in the package code. If graphics inclusion fails for a specific terminal, the intermediate file extension may be the cause.

The terminal name can be specified as a value to the key `terminal` as an argument to the environment,

```
\begin{gnuplot}[terminal=<terminal>]
```

```
...
```

```
\end{gnuplot}
```

The graph can be scaled by providing an argument to the `scale` key, similar to the specification of the terminal name. It defaults to 1, i.e. no scaling will be done. Additional options to the terminal can be given as argument to the `terminaloptions` key, e.g.

```
\begin{gnuplot}[terminal=pdf,terminaloptions=font ",10" linewidth 3]
```

```
...
```

```
\end{gnuplot}
```

`\gnuplotloadfile` In addition to the environment, you can use the command `\gnuplotloadfile`

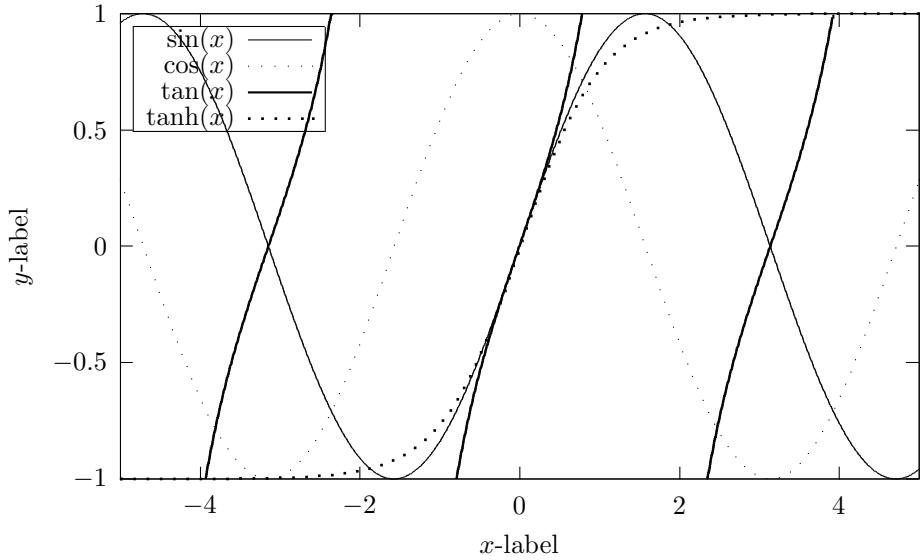


Figure 1: This is a simple example using the `latex`-terminal.

to directly include gnuplot source code. It accepts the same options as the environment, e.g.

```
\gnuplot{loadfile[terminal=pdf]{example.gnuplot}}
```

4 Examples

Here are short examples of each possible terminal.

`latex`
This is a terminal that offers only basic support, as you won't be able to (easily) use colours. For an example see figure 1.

An advantage of this terminal is that it only relies on the picture-environment (which should be supported widely). Furthermore you can use the `siunitx`-option to get correct axis labeling and you can use L^AT_EX commands.

On the other hand, if you have multiple things to plot, it'll be hard to distinguish them, as you can't use colours (and the dash patterns are hard to distinguish). As this is something which should be avoided, especially for scientific work, if possible, you should try another terminal. The source code for figure 1 is:

```
\begin{figure}%
\centering%
\begin{gnuplot}[terminal=latex, terminaloptions=rotate]
set key box top left
set key width 4
set sample 1000
```

```

set xr [-5:5]
set yr [-1:1]
set xlabel '$x$-label'
set ylabel '$y$-label'
plot sin(x) w l lc 1 t '$\sin(x)$', \
      cos(x) w l lc 2 t '$\cos(x)$', \
      tan(x) w l lc 3 t '$\tan(x)$', \
      tanh(x) w l lc 4 t '$\tanh(x)$'
\end{gnuplot}
\caption{This is a simple example using the latex-terminal.}%
\label{pic:latex}%
\end{figure}%

```

epslatex This terminal produces high-quality output, you also can use the `siunitx`-option for axis labeling and the usual L^AT_EX commands.

There are rare examples where one sees flaws, like two lines not completely adhering (see e.g. some parts of the red line in figure 2). You have to use the `epstopdf`-package to use this terminal with pdftEX.

If you're using pdftEX this or the `cairolatex`-terminal should be the terminals you use. Your pdf viewer can slow down dramatically, if you use high resolution 3d plots though, but there are seldom real problems. For an example see figure 2.

Its code is:

```

\begin{figure}%
\centering%
\begin{gnuplot}[terminal=epslatex, terminaloptions=color dashed]
  set key box top left
  set key width 2
  set key opaque
  set sample 1000
  set xr [-5:5]
  set yr [-1:1]
  set xlabel '$x$-label'
  set ylabel '$y$-label'
  plot sin(x) w l lc 1 lw 3 t '$\sin(x)$', \
        cos(x) w l lc 2 lw 3 t '$\cos(x)$', \
        tan(x) w l lc 3 lw 3 t '$\tan(x)$', \
        tanh(x) w l lc 4 lw 3 t '$\tanh(x)$'
\end{gnuplot}
\caption{This is a simple example using the epslatex-terminal.}%
\label{pic:epslatex}%
\end{figure}%

```

jpeg This is a terminal that offers (compared with other terminals) poor raster graphics output. If possible switch to another terminal (preferably to the `cairolatex`-, the `epslatex`- or the `tikz`-terminal) For an example see figure 3.

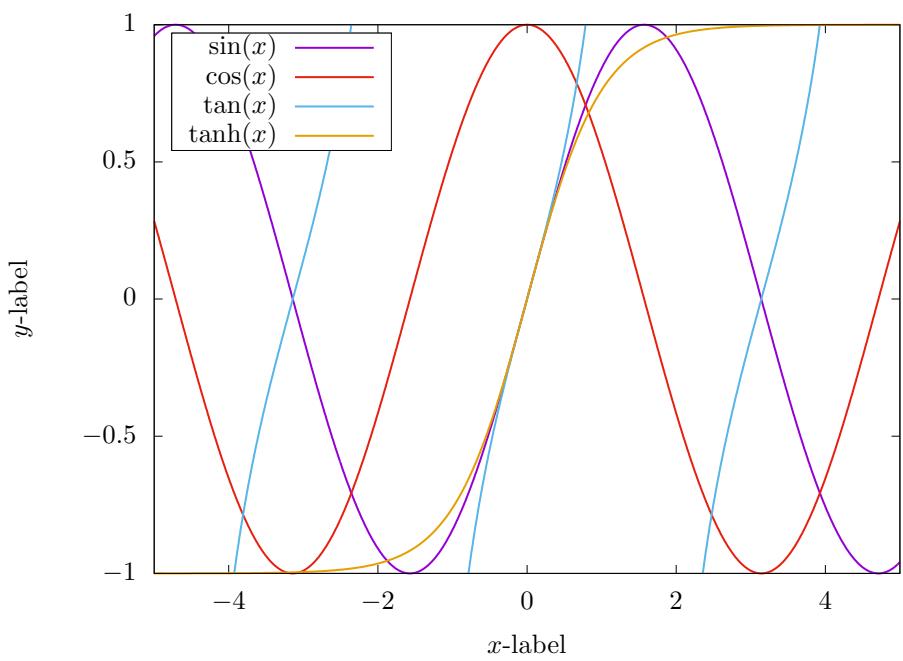


Figure 2: This is a simple example using the `epslatex`-terminal.

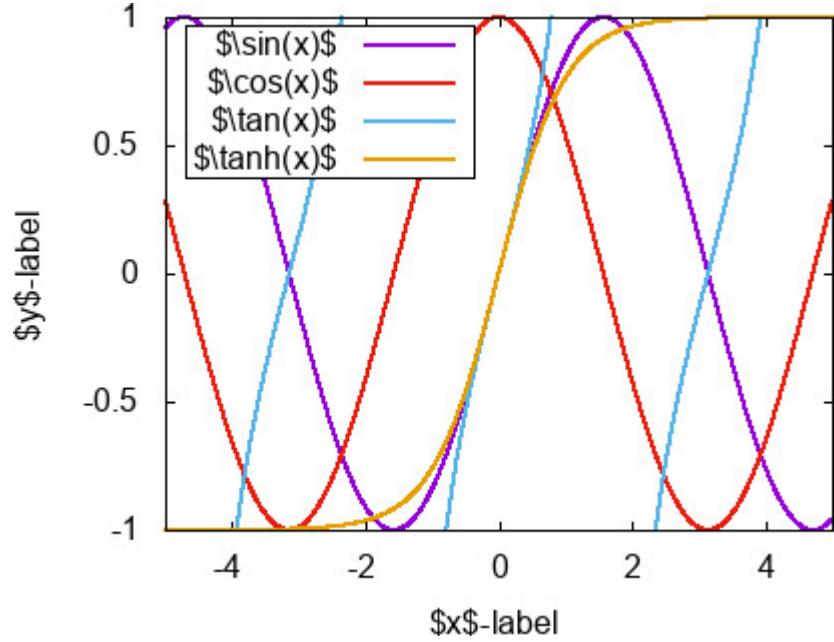


Figure 3: This is a simple example using the `jpeg`-terminal.

There are quite some disadvantages, as you cannot use `LATEX` commands, it is hard to get the right font and the right font size, the `siunitx` option is useless, no vector graphics and there seems to be no support for dashed lines.

Its code is:

```
\begin{figure}%
\centering%
\begin{gnuplot}[terminal=jpeg, terminaloptions=crop]
set key box top left
set key width -2
set key opaque
set sample 1000
set xr [-5:5]
set yr [-1:1]
set size 0.7,0.7
set xlabel '$x$-label'
set ylabel '$y$-label'
plot sin(x) w 1 lc 1 lw 3 t '$\sin(x)$', \
cos(x) w 1 lc 2 lw 3 t '$\cos(x)$', \
tan(x) w 1 lc 3 lw 3 t '$\tan(x)$', \
tanh(x) w 1 lc 4 lw 3 t '$\tanh(x)$'
\end{gnuplot}
```

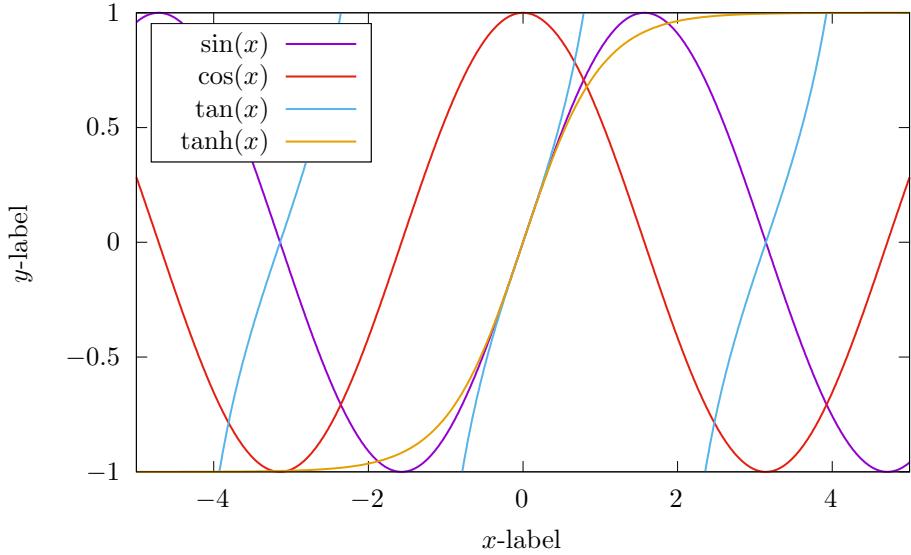


Figure 4: This is a simple example using the `cairolatex`-terminal.

```
\caption{This is a simple example using the jpeg-terminal.}%
\label{pic:jpeg}%
\end{figure}%
```

cairolatex This is a terminal that offers high-quality output. Unlike the `epslatex`-terminal it will generate *directly* pdf output. It allows the use of the `siunitx` option as well as L^AT_EX commands. If you're using pdfT_EX this or the `epslatex`-terminal should be the terminals you use. `cairolatex` has the advantage of not needing the `epstopdf`-package. Your pdf viewer can slow down dramatically, if you use high resolution 3d plots though, but there are seldom real problems. For an example see figure 4.

Its code is:

```
\begin{figure}%
\centering%
\begin{gnuplot}[terminal=epslatex, terminaloptions=color dashed]
set key box top left
set key width 4
set key height 0.25
set key spacing 1.2
set key opaque
set sample 1000
set xr [-5:5]
```

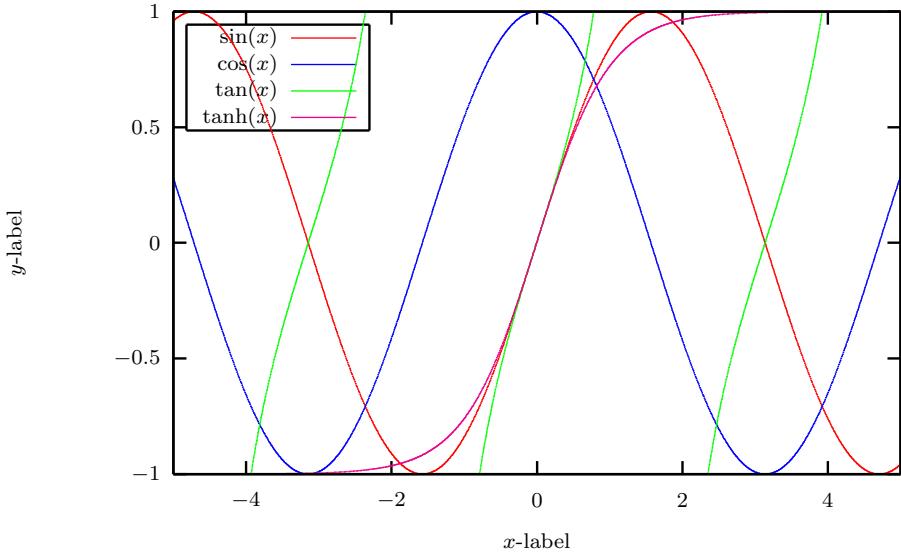


Figure 5: This is a simple example using the `eepic-terminal`.

```

set yr [-1:1]
set xlabel '$x$-label'
set ylabel '$y$-label'
plot sin(x) w l lc 1 lw 3 t '$\sin(x)$', \
       cos(x) w l lc 7 lw 3 t '$\cos(x)$', \
       tan(x) w l lc 3 lw 3 t '$\tan(x)$', \
       tanh(x) w l lc 4 lw 3 t '$\tanh(x)$'
\end{gnuplot}
\caption{This is a simple example using the cairolatex-terminal.}%
\label{pic:cairolatex}%
\end{figure}%

```

eepic This is a terminal that offers better output than the `latex-terminal`, but it is quite worse compared to `epslatex/cairolatex/tikz`-terminal. You can use the `siunitx` option as well as L^AT_EX commands.

It seems one can use either coloured or dashed lines, not both combined. The lines are also pretty ugly and there is no `set key opaque`-option in `gnuplot` available.

For an example see figure 5. Avoid if possible. There are better terminals available.

Its code is:

```
\begin{figure}%
```

```

\centering%
\begin{gnuplot}[terminal=eepic, terminaloptions = color rotate]
    set key box top left
    #set key width -3
    set sample 1000
    set xr [-5:5]
    set yr [-1:1]
    set xlabel '$x$-label'
    set ylabel '$y$-label'
    plot sin(x) w 1 lc 1 lw 3 t '$\sin(x)$', \
        cos(x) w 1 lc 2 lw 3 t '$\cos(x)$', \
        tan(x) w 1 lc 3 lw 3 t '$\tan(x)$', \
        tanh(x) w 1 lc 4 lw 3 t '$\tanh(x)$'
\end{gnuplot}
\caption{This is a simple example using the cairolatex-terminal.}%
\label{pic:cairolatex}%
\end{figure}%

```

emtex

Similar to the `latex`-terminal (but with emtex specials), except it seems not to draw any borders (at least for pdfTEX). Only relies on the picture environment, so should be widely supported, the `siunitx` option is available and you can use L^AT_EX commands.

If you have multiple things to plot, it'll be hard to distinguish them, as you can't use colours (and the dash patterns are hard to distinguish), this is a no-no for scientific work, so avoid if possible.

The source code for figure 6 is:

```

\begin{figure}%
\centering%
\begin{gnuplot}[terminal=emtex, terminaloptions=rotate]
    set key box top left
    set key width 4
    set sample 1000
    set xr [-5:5]
    set yr [-1:1]
    set xlabel '$x$-label'
    set ylabel '$y$-label'
    plot sin(x) w 1 lc 2 t '$\sin(x)$', \
        cos(x) w 1 lc 4 t '$\cos(x)$', \
        tan(x) w 1 lc 6 t '$\tan(x)$', \
        tanh(x) w 1 lc 8 t '$\tanh(x)$'
\end{gnuplot}
\caption{This is a simple example using the emtex-terminal.}%
\label{pic:emtex}%
\end{figure}%

```

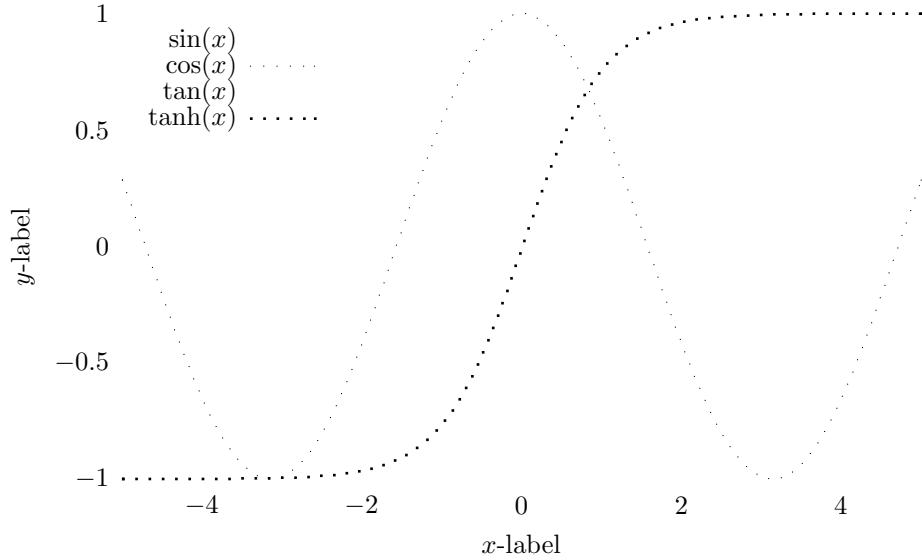


Figure 6: This is a simple example using the `emtex-terminal`.

`tikz` Probably offers the best output terminal at the moment, even though the difference to `cairolatex` and `epslatex` isn't that big. The `siunitx` option is available, L^AT_EX commands can be used and you can easily export constants from within gnuplot (see the example code for an example on how to export them).

On the other hand requires this terminal the `gnuplot-lua-tikz`-package and you cannot use many plots if you use pdft_EX, as T_EX's memory will be exceeded pretty fast. If you use LuaT_EX, this is no problem.

The source code for figure 7 is:

```
\begin{figure}%
\centering%
\begin{gnuplot}[terminal=tikz, terminaloptions={color dashed providevars a,c}]
set key box top left
set key width -0.9
set key height 0.25
set key spacing 1.25
set sample 1000
set grid xtics lt 0 ls 0
set grid ytics lt 0 ls 0
set xr [-5:5]
set yr [-1:1]
set key opaque
set xlabel '$x$-label'
```

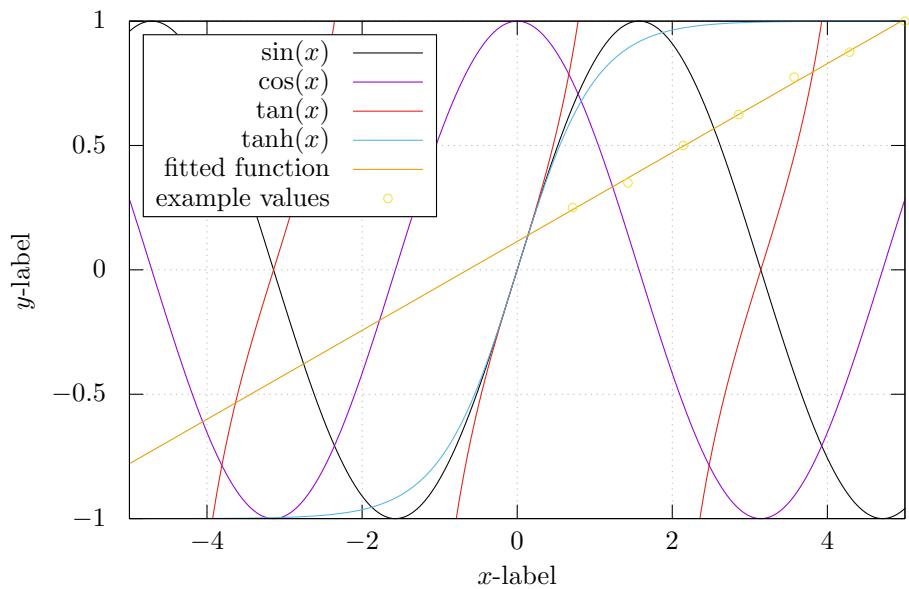


Figure 7: This is a simple example using the `tikz-terminal`. The slope of the fitted function ($a * x + c$) is $a = 0.178\,749\,999\,989\,22$, while its offset is $c = 0.114\,285\,714\,323\,53$.

```

set ylabel '$y$-label'
f(x) = a*x+c
fit f(x) "SomeValuesForGnuplot.txt" u ($1*5/7):($2/20) via a,c
plot sin(x) w 1 lc 2 t '$\sin(x)$', \
      cos(x) w 1 lc 4 t '$\cos(x)$', \
      tan(x) w 1 lc 6 t '$\tan(x)$', \
      tanh(x) w 1 lc 3 t '$\tanh(x)$', \
      f(x) t 'fitted function' lc 4, \
      "SomeValuesForGnuplot.txt" u ($1*5/7):($2/20) w points lc 5 \
      t 'example values'
\end{gnuplot}
\caption{This is a simple example using the \texttt{\{tikz\}}-terminal.  

The slope of the fitted function ( $a*x+c$ ) is  $a=\text{gpgetvar}\{a\}$ ,  

while its offset is  $c=\text{gpgetvar}\{c\}$ .}%
\label{pic:tikz}%
\end{figure}%
As compiling all pictures everytime can take quite a long time, the tikz-package offers the possibility to externalize the pictures, resulting in a great speedup. An example for LuaTeX is shown below, pictures are not generated if they are up-to-date. In the preamble write:
\usepackage{tikz}
\usetikzlibrary{external}
\tikzexternalize[prefix=gnuplottex/] %-- Use the gnuplottex-subfolder. Deactivate
%-- the subfolderoption of gnuplottex to use!
\tikzset{external/system call={lualatex -shell-escape -halt-on-error
-interaction=batchmode -jobname "\image" "\texsource"}}
\tikzexternalize
In the document, write e.g.:
\begin{figure}%
\centering%
\tikzsetnextfilename{ThisIsASinus}
\begin{tikzpicture}[gnuplot]
\begin{gnuplot}[terminal=tikz, terminaloptions=color dashed nopicenvironment]
set grid xtics mxtics lt 0 ls 0
set grid ytics mytics lt 0 ls 0
set key box top left
plot sin(x) w 1 t 'Sinus'
\end{gnuplot}
\end{tikzpicture}
\caption{Captiontext.}%
\label{pic:ThisIsASinus}%
\end{figure}%

```

`pstex,pslatex,pstricks`

The `pstex`- and `pslatex`-terminal produces unusable output with `pdftEX`. I wasn't able to get any output using the `pstricks`-terminal with `pdftEX` (if you manage to get reasonable output via one of these terminals, please send me an

email).

5 Acknowledgements

In addition to the people mentioned in the changelog, I would like to thank Roy Ratcliffe for the suggestion and basic code for the gnuplot terminal specification and handling. Additional thanks to Michel Voßuhle for the implementation of `\gnuplotloadfile`. I would also like to thank all the people who sent me bug reports, feature requests and patches – Philip Vetter, sdaau, Mika Pflüger, Henri Menke, Michel Voßkuhle, Udo Höfel, Thomas Schmid and Manuel Solano. Gnuplottex wouldn't be what it is today without you.

6 Implementation

6.1 Initialization

```
1 \newif\ifShellEscape
2 \newif\ifmiktex \miktexfalse
3 \newif\ifusesiunitx
4 \newif\ifcleanup
5 \newif\ifusesubfolder
6
7 \newwrite\verbatim@out
8
9 \DeclareOption{shell}{\ShellEscapetrue}
10 \DeclareOption{noshell}{\ShellEscapefalse}
11 \DeclareOption{miktex}{\global\miktextrue}
12 \DeclareOption{siunitx}{\usesiunitxtrue}
13 \DeclareOption{cleanup}{\cleanuptrue}
14 \DeclareOption{subfolder}{\usesubfoldertrue}
15
16 \@ifundefined{gnuplotexe}{\def\gnuplotexe{gnuplot}}{}
17
18 \ExecuteOptions{shell}
19 \ProcessOptions\relax
20 %% test if shell escape really works
21 \ifShellEscape
22 \def\tmpfile{w18-test-\the\year\the\month\the\day\the\time.tex}
23 \ifmiktex
24 \immediate\write18{echo t > "\tmpfile"}
25 \else
26 \immediate\write18{touch \tmpfile}
27 \fi
28 \ifmiktex
29 \IfFileExists{\tmpfile.}{\ShellEscapetrue}{\ShellEscapefalse}
30 \immediate\write18{del "\tmpfile"}
31 \else
```

```

32 \IfFileExists{\tmpfile}{\ShellEscapetrue}{\ShellEscapefalse}
33 \immediate\write18{rm -f \tmpfile}
34             \immediate\write18{rm -f "\jobname.gnuploterrors"}
35 \fi
36 \fi
37
38 \ifusesubfolder
39     \ifmiktex
40         \immediate\write18{mkdir gnuplottex}
41         \immediate\write18{echo test > "gnuplottex/\tmpfile"}
42     \else
43         \immediate\write18{mkdir -p "gnuplottex"}
44         \immediate\write18{touch "gnuplottex/\tmpfile"}
45     \fi
46 \IfFileExists{gnuplottex/\tmpfile}{
47     \ifmiktex
48         \immediate\write18{del "gnuplottex@\backslash\tmpfile"}
49     \else
50         \immediate\write18{rm -f "gnuplottex/\tmpfile"}
51     \fi
52     \def\subfolder{gnuplottex/}
53 }{
54     \PackageWarningNoLine{gnuplottex}
55         {Creation of subfolder failed.\MessageBreak
56             You'll need to create the folder yourself}
57     \def\subfolder{}
58 }
59 \else
60     \def\subfolder{}
61 \fi
62
63
64 \ifShellEscape
65     \PackageInfo{gnuplottex}
66     {Automatically converting gnuplot files.}
67 \else
68     \PackageWarningNoLine{gnuplottex}
69         {Shell escape not enabled.\MessageBreak
70             You'll need to convert the graphs yourself.}
71 \fi
72 \newcounter{fignum}

```

6.2 .gnuplot write out

```

73 \def\figname{\jobname-gnuplottex-fig\thefignum}
74
75 \def\usesiunitxingnuplot{\immediate\write\verbatim@out{set format '\@backslashchar num\{@percent
76
77 \def\gnuplotverbatim#1{%
78     \def\BeforeStream

```

```

79      {\message{Opening gnuplot stream #1}%
80          \immediate\write\verbatim@out{\string set terminal \gnuplotterminal \gnuplotterminalopt
81 \immediate\write\verbatim@out{\string set output '\subfolder\filename.\gnuplottexextension{\gnup
82     \ifusesiunitx
83         \ifthenelse{\equal{\extension}{\string tex}}{\usesiunitxngnuplot}{\PackageWarningNoLin
84     \else
85         \relax
86     \fi
87 }%
88 \@bsphack%
89 \immediate\openout \verbatim@out #1%
90 \BeforeStream%
91 \let\do\@makeother\dospecials%
92 \catcode`^M\active
93 \def\verbatim@processline{%
94     \immediate\write\verbatim@out
95     {\the\verbatim@line}%
96     \verbatim@start}
97 \def\endgnuplotverbatim{\%
98     \immediate\closeout\verbatim@out
99     \@esphack
100 \catcode`\0
101 \catcode`\{
102 \catcode`\}
103 \catcode`\$3
104 \catcode`\&4
105 \catcode`\^M5
106 \catcode`\#6
107 \catcode`\^7
108 \catcode`\_8
109 \catcode`\ 10
110 \catcode`\%14}

```

6.3 Environment definition

```

111 \def\gnuplottexextension@latex{\string tex}
112 \def\gnuplottexextension@epslatex{\string tex}
113 \def\gnuplottexextension@cairolatex{\string tex}
114 \def\gnuplottexextension@eepic{\string tex}
115 \def\gnuplottexextension@pstricks{\string tex}
116 \def\gnuplottexextension@pslatex{\string tex}
117 \def\gnuplottexextension@pstex{\string tex}
118 \def\gnuplottexextension@emtex{\string tex}
119 \def\gnuplottexextension@jpeg{\string jpg}
120 \def\gnuplottexextension@tikz{\string tex}
121 \def\gnuplottexextension@lua{\string tex}
122 \def\gnuplottexextension#1{\@ifundefined{gnuplottexextension@#1}{\csname gnuplottexextension
123 \define@key{pic}{scale}[1]{\def\gnuplotscale{#1}}
124 \define@key{pic}{terminal}[latex]{\def\gnuplotterminal{#1}}
125 \define@key{pic}{terminaloptions}{\def\gnuplotterminaloptions{ #1}}}

```

```

126 \newenvironment{gnuplot}[1] []{\stepcounter{fignum}%
127 \def\gnuplotterminal{latex}%
128 \def\gnuplotterminaloptions{}%
129 \def\gnuplotscale{1}%
130 \setkeys{pic}{#1}%
131     \xdef\gnuplotCutFile{\subfolder\fignum.gnuplot}%
132     \gnuplotverbwrite{\gnuplotCutFile}%
133 {\endgnuplotverbwrite}%
134 \gnuplotgraphicsprocess%
135 \gnuplotgraphicsinclude}

6.4 .gnuplot file processing

136 \def\extension{\gnuplottexextension{\gnuplotterminal}}%
137 \long\gdef\gnuplotgraphicsprocess{%
138 \ifShellEscape{%
139 \IfFileExists{\subfolder\fignum.gnuplot}{%
140             \ifmiktex
141                 \immediate\write18{\gnuplotexe\space \subfolder\fignum.gnuplot}%
142             \else
143                 \immediate\write18{\gnuplotexe\space \subfolder\fignum.gnuplot\spa
144             \fi}%
145 \IfFileExists{\subfolder\fignum.\extension}{%
146 \PackageInfo{gnuplottex}{\subfolder\fignum.gnuplot converted}%
147         \ifcleanup
148             \ifmiktex
149                 \immediate\write18{del "\subfolder\fignum.gnuplot"}%
150             \else
151                 \immediate\write18{rm -f "\subfolder\fignum.gnuplot"}%
152             \fi}%
153         \fi}%
154     }%
155 {\PackageWarningNoLine{gnuplottex}%
156 {Conversion of \subfolder\fignum.gnuplot failed}}{}%
157 \fi}%
158 \long\def\gnuploterrors@eatpar#1#2@nil{\def\gnuploterrors@{#2}%
159 \AtEndDocument{%
160     \ifmiktex
161     \else
162     \IfFileExists{\jobname.gnuploterrors}{%
163         \CatchFileDef\gnuploterrors{\jobname.gnuploterrors}{\endlinechar='^J \catcode`\ =12 }%
164         \expandafter\gnuploterrors@eatpar\gnuploterrors@nil
165         \ifx\gnuploterrors@\empty\else
166             \PackageWarningNoLine{gnuplottex}{Gnuplot execution produced errors: ^J}%
167             \detokenize\expandafter{\gnuploterrors@}}%
168     \fi
169     }{}%
170     \fi
171 }

```

6.5 Graph inclusion

```
172 \long\gdef\gnuplotgraphicsinclude{%
173 \IfFileExists{\subfolder\figname.\extension}{%
174 \ifthenelse{\equal{\extension}{\string tex}}{%
175 {\scalebox{\gnuplotscale}{\input{\subfolder\figname.\extension}}}%
176 {\includegraphics[scale=\gnuplotscale]{\subfolder\figname.\extension}}%
177 }%
178 {\PackageWarningNoLine{gnuplotex}%
179 {Please convert \subfolder\figname.gnuplot manually}}%
180 }
```

6.6 .gnuplot file processing

```
181 \newcommand{\gnuplotloadfilewrite}[2]{%
182   \immediate\openout \verbatim@out \#1%
183   \message{Opening gnuplot stream #1}%
184   \immediate\write\verbatim@out{\string set terminal \gnuplotterminal \gnuplotterminaloptions}%
185   \immediate\write\verbatim@out{\string set output '\subfolder\figname.\gnuplottexextension\gnuplottex}%
186   \ifusesiunitx%
187     \ifthenelse{\equal{\extension}{\string tex}}{\usesiunitx\in\gnuplot}{\PackageWarningNoLine{\gnuplottex}}%
188   \else%
189     \relax%
190   \fi%
191   \ifusesiunitx%
192     \if\escapechar=-1\edef\percentfor\gnuplot{\string \%}%
193     \if\escapechar=-1\edef\backslashfor\gnuplot{\string \\}%
194     \immediate\write\verbatim@out{\set format '\backslashfor\gnuplot num\percentfor\gnuplot g}%
195   \else%
196     \relax%
197   \fi%
198   \immediate\write\verbatim@out{\string load '#2'}%
199   \immediate\closeout\verbatim@out%
200 }
201
202 \newcommand{\gnuplotloadfile}[2][]{%
203   \stepcounter{fignum}%
204   \def\gnuplotterminal{latex}%
205   \def\gnuplotterminaloptions{}%
206   \def\gnuplotscale{1}%
207   \setkeys{pic}{#1}%
208   \xdef\gnuplotCutFile{\subfolder\figname.gnuplot}%
209   \gnuplotloadfilewrite{\gnuplotCutFile}{#2}%
210   \gnuplotgraphicsprocess%
211   \gnuplotgraphicsinclude%
212 }
```