## Todolist for PGFPlots

1.16

## Christian Feuersnger

### April 6, 2018

#### Contents

1	Release TODO	1
2	Tests	6
3	Documentation todo	6
4	${\bf Bugs/Features~in~PGF/TikZ}$	6
5	Bugs in PGFPlots	<b>72</b>
6	Feature Proposals PGFPlots	<b>7</b> 5

### 1 Release TODO

The following steps have to be done for every release:

- $\bullet\,$ run tests against pgf CVS
- run tests against latest pgf stable
- finish manual
  - update the description for the compat key to document changes introduced by the most recent compatibility level
  - disable \todosp in \pgfplots.preamble.tex
  - fix warnings
  - browse through it
  - the example of colorbar horizontal uses "rand" and that produced unexpected output once without clue why. Observe it.
- ensure that the "compile" matrix (below this list) is complete for pgf CVS and the latest pgf Stable
- run context tests (basically compile and browse-through. There are no assertions.)

- run against pgf CVS
- run against latest pgf stable
- update ChangeLog with "RELEASED VERSION XXX" and update README
- assign git tag for new version
- $\bullet\,$  run <code>scripts/pgfplots/pgfplotsrevisionfile.sh</code> to assign the package versions based on tag

(done automatically when compiling the manual)

- recompile manual (to pick up the correct version)
- run primitive example files
- adjust the release makefile to get correct file names
- ensure that copyright notes are up-to-date, at least in README
- assemble TDS.zip and CTAN.zip (using the release makefile)
  - make -f pgfplots/scripts/pgfplots/Makefile.pgfplots\_release\_sourceforge this creates the release files
  - make sure the archives do not contain wrong files.
- upload to CTAN.

Submitted to host

```
dante.ctan.org
Your name and email
    Christian Feuersnger <cfeuersaenger@users.sourceforge.net>
Filename
   pgfplots_1.6.1.ctan.flatdir.zip
Version number
    1.6.1
Location on CTAN
    /graphics/pgf/contrib/pgfplots/
Summary description
   pgfplots - Create normal/logarithmic plots in two and three dimensions for LaTeX.
License type
    gpl
Announcement text
Notes to maintainers
    As requested, I created a flat directory structure containing all files
```

(i.e.\@ it contains latex style files, context package files, plain tex include files, generic implementation files, and LUA code all in the same

directory). I will also upload a TDS zip file to

/install/graphics/pgf/contrib/pgfplots.

Thanks for maintaining CTAN!

Attention: the announcement text must not be too long. In particular, README extracts are too long.

- release to sourceforge.
  - Make sure to update the README at top-level.
  - make sure to mark the new TDS as "default download for all platforms"
- upload to sourceforge web space (using the release makefile)
  - make -f pgfplots/scripts/pgfplots/Makefile.pgfplots\_release\_sourceforge uploaddis this copies the manuals
  - change Makefile.pgfplots\_release\_sourceforge back to unstable
  - make -f pgfplots/scripts/pgfplots/Makefile.pgfplots\_release\_sourceforge upload this updates the unstable
  - if necessary, update scp://cfeuersaenger.pgfplots@web.sourceforge.net/htdocs/index.php
- send announcement to pgfplots-features@lists.sourceforge.net
- $\bullet$  use git push origin --tags or git push origin 1.13 to push the  $\mathrm{tag}(s)$

#### 2 Tests

last test verifications:

	pgf CVS	$pgf \ 3.0.1$	$pgf \ 3.0.0$	pgf 2.10	pgf 2.00	pgf 2.00+ce
regressiontests	for 1.16	for 1.16	for 1.12.1	for $1.12*$	for 1.8 (7% fail)	2009-12-30
unittests	for 1.16	for 1.16	for 1.12	for 1.12		
manual	for 1.16	for 1.16	for 1.12	for 1.9	for 1.5	
pgfplotstable.pdf	for 1.16	for 1.16	for 1.12	for 1.9	for 1.5	
example latex	for 1.16			for 1.9	2009-12-30	
example context(mkII)	for 1.15			for 1.9	2009-12-30	
example context(mkIV)	for 1.16		for 1.12.1	for 1.9	2009-12-30	
example plain tex	for 1.16			for 1.9	2009-12-30	
tests context (mkII)	for 1.15		for 1.12	for 1.9		
tests context (mkIV)	for 1.16		for $1.12*$			

Note that context MK IV needs the pgfplots installed in ~/texmf (doesn't respect environment variables)

context MK IV may need a special environment like . ~/context/tex/setuptex

### 3 Documentation todo

document \boldmath \$...\$ for pgfplotstable

**Documentation Todo** [open, Priority 5, Epic ''] pgfplotstodo.tex:189 scatter rgb is not documented **Documentation Todo** [open, Priority 5, Epic ''] pgfplotstodo.tex:206 Document standalone vs. external **Documentation Todo** [open, Priority 5, Epic ''] pgfplotstodo.tex:211 The new API for stacked plots + nodes near coords is missing, among it the **Documentation Todo** [open, Priority 5, Epic ''] pgfplotstodo.tex:216 document installation requirements when using lualatex (LUAINPUTS should [open, Priority 5, Epic ''] pgfplotstodo.tex:224 **Documentation Todo** bei dem Bsp-Tex zu pgfplotstable scheint eine Zeile im Tex-File zu fehlen: **Documentation Todo** [open, Priority 5, Epic "] pgfplotstodo.tex:230 try a bar plot with individually shaded bars **Documentation Todo** [open, Priority 5, Epic "] pgfplotstodo.tex:234 contour: a change label dist **Documentation Todo** [open, Priority 5, Epic ''] pgfplotstodo.tex:238 document 'execute at begin axis' and its new variants **Documentation Todo** [open, Priority 5, Epic ''] pgfplotstodo.tex:242 document how to plot against the coordindex **Documentation Todo** [open, Priority 5, Epic ''] pgfplotstodo.tex:247 document how to identify the source of "dimension too large" errors: pgfplotstodo.tex:253 **Documentation Todo** [open, Priority 5, Epic '']

It seems as if the AMS command  $\text{command }\text{ref{ref:to:a:plot}}$ 

pgfplotstodo.tex:259 **Documentation Todo** [open, Priority 5, Epic ''] clickable lib:

# 4 Bugs/Features in PGF/TikZ

pgfplotstodo.tex:721 **pgfbug** [open, Priority 5, Epic ''] external bug:

pgfplotstodo.tex:731 **pgfbug** [open, Priority 5, Epic ''] external does not work together with tcolorbox

pgfplotstodo.tex:750 pgfbug [open, Priority 5, Epic ']
topath in plots is broken since PGF 3.0.0: the following should be a single

pgfplotstodo.tex:759 **pgfbug** [open, Priority 5, Epic ''] external lib does not properly recompile unresolved references in external

pgfplotstodo.tex:769 **pgfbug** [open, Priority 5, Epic '']
Beamer + pgf: the default template introduces a white line on top.

pgfplotstodo.tex:795 **pgfbug** [open, Priority 5, Epic '']
When using externalize function together with a transform canvas, the

pgfplotstodo.tex:852 **pgfbug** [open, Priority 5, Epic ''] pgf users Vol 50 issue 6:

pgfplotstodo.tex:861 pgfbug [open, Priority 5, Epic ']
consider a matrix style which applies only to the outer matrix node style

pgfplotstodo.tex:865 **pgfbug** [open, Priority 5, Epic '']
make assignments to \pgf@x and \pgf@y always \global

pgfplotstodo.tex:869 pgfbug [open, Priority 5, Epic '']

implement \pgfmathfloattocount

pgfplotstodo.tex:874 pgfbug [open, Priority 5, Epic '']

active '|' characters result in compilation bugs

pgfplotstodo.tex:878 pgfbug [open, Priority 5, Epic "]

'text height=1em' realisieren mit [node font units]1em

pgfplotstodo.tex:887 pgfbug [open, Priority 5, Epic ']

the fpu can't be used inside of paths. That should be fixed.

## 5 Bugs in PGFPlots

pgfplotstodo.tex:1592 Bug [open, Priority 10, Epic 'fillbetween']

fill between fails to work with PGF 2.10

pgfplotstodo.tex:1165 Bug [open, Priority 5, Epic 'units']

after using a preset key (milli) with x SI prefix, Next, I want to switch

pgfplotstodo.tex:1171 **Bug** [open, Priority 5, Epic 'polar']

polar plots do not show all tick lines if only parts of the range is

pgfplotstodo.tex:1217 Bug [open, Priority 5, Epic ']

regression in 1.14: point meta number format is in internal FPU

pgfplotstodo.tex:1226 Bug [open, Priority 5, Epic ']

it seems as if the layer configuration does not really work:

pgfplotstodo.tex:1237 Bug [open, Priority 5, Epic 'fillbetween']

fillbetween / intersection lib bug:

[open, Priority 5, Epic ''] Bug pgfplotstodo.tex:1252 external bug: the external lib must keep pgfpictureid, otherwise it mixes [open, Priority 5, Epic ''] Bug pgfplotstodo.tex:1259 fpu is unable to compute exp(-4.08893e7) (runs into overflow Bug [open, Priority 5, Epic ''] pgfplotstodo.tex:1268 document [open, Priority 5, Epic ''] Bug pgfplotstodo.tex:1273 external lib screws up prefix option? [open, Priority 5, Epic "] pgfplotstodo.tex:1278 Bug pgfmathparse no longer compatible with height of etc. of calc package? [open, Priority 5, Epic ''] Bug pgfplotstodo.tex:1304 colormap access=piecewise constant can produce visual artifacts: [open, Priority 5, Epic "] Bug pgfplotstodo.tex:1308 axis description styles contain "on layer", but they ignore it! Bug [open, Priority 5, Epic "] pgfplotstodo.tex:1324 syntax highlighting issue: [open, Priority 5, Epic ''] Bug pgfplotstodo.tex:1348 tikz bug: using -- cycle exchanges start/end positions of nodes [open, Priority 5, Epic 'z buffer'] Bug pgfplotstodo.tex:1354 z buffer=sort appears to cause wrong results – must use min(depths) pgfplotstodo.tex:1362 [open, Priority 5, Epic '']

pgfplotstable: dec sep align does not work if someone uses custom

pgfplotstodo.tex:1367 Bug [open, Priority 5, Epic "]

add sanity check to lua backend before sending mapped coordinates to TeX:

pgfplotstodo.tex:1392 Bug [open, Priority 5, Epic ']

Using \thisrow{col} merely expands to the value, but does not

pgfplotstodo.tex:1398 Bug [open, Priority 5, Epic 'precision']

inaccuracy when determining minor ticks?

pgfplotstodo.tex:1415 Bug [open, Priority 5, Epic 'precision']

Tick labels suffer from inexact arithmetics in Tikz foreach:

pgfplotstodo.tex:1441 Bug [open, Priority 5, Epic 'precision']

|...|and rounding:

pgfplotstodo.tex:1449 **Bug** [open, Priority 5, Epic 'v2']

consider using unbounded coords=jump as default for mesh/surface

pgfplotstodo.tex:1464 Bug [open, Priority 5, Epic '']

fpu bug:

pgfplotstodo.tex:1470 Bug [open, Priority 5, Epic 'z buffer']

view dir=reverse appears to result in a wrong 3d view directions and screws

pgfplotstodo.tex:1478 Bug [open, Priority 5, Epic ']

3d axes and y dir = reverse seems to corrupt the z ordering, see

pgfplotstodo.tex:1508 Bug [open, Priority 5, Epic 'smithchart']

smithchart admittance graph has wrong sign

pgfplotstodo.tex:1534 Bug [open, Priority 5, Epic 'smithchart']

smithcharts: -;. Ab einer Gre von 14cm funktionieren yticklabel around

pgfplotstodo.tex:1650 **Bug** [open, Priority 5, Epic 'smithchart'] substitute axis cs fails with smithcharts:

pgfplotstodo.tex:1683 **Bug** [open, Priority 5, Epic 'substitute axis cs'] substitute axis cs fails to work with ++ (0,1cm) (probably for

pgfplotstodo.tex:1789 **Bug** [open, Priority 5, Epic 'fillbetween'] error bars + fill between do not work together (per email of Jerzy Wrobel

pgfplotstodo.tex:1794 **Bug** [open, Priority 5, Epic ''] spurious shifts/displacement when using group plots and discontinuities:

pgfplotstodo.tex:1800 **Bug** [open, Priority 5, Epic ''] get rid of this boolean "apply@datatrafo@". It is a synonym for "is

pgfplotstodo.tex:1830 **Bug** [open, Priority 5, Epic ''] REGRESSION:

pgfplotstodo.tex:1878 **Bug** [open, Priority 5, Epic 'dateplot'] combination of dateplot and x tick label as interval does not work well

pgfplotstodo.tex:1883 **Bug** [open, Priority 5, Epic ''] xtick key still relies on PGF's basic level foreach – and the numbers

pgfplotstodo.tex:1901 **Bug** [open, Priority 5, Epic 'fillbetween'] fillbetween + softclip: soft clip should return the input path if the input

pgfplotstodo.tex:1956 **Bug** [open, Priority 5, Epic ''] extra ticks produce unwanted shifts of labels

Pgfplotstodo.tex:1961 Bug [open, Priority 5, Epic '']
composed plot handlers (hist, boxplot, contour) need access to coordinate

pgfplotstodo.tex:1980 **Bug** [open, Priority 5, Epic "]

pgfplots fails to handle very small number ranges on logarithmic plots

pgfplotstodo.tex:1990 Bug [open, Priority 5, Epic 'nodes near coords']

ybar interval does not work well with nodes near coords

pgfplotstodo.tex:1999 Bug [open, Priority 5, Epic 'nodes near coords']

ybar interval + nodes nears coords: nodes are displaced.

pgfplotstodo.tex:2010 Bug [open, Priority 5, Epic "]

Coordinate filtering + error bars do not work.

pgfplotstodo.tex:2015 **Bug** [open, Priority 5, Epic ']

|legendto name— appears to be broken if the legend is empty (empty

pgfplotstodo.tex:2019 **Bug** [open, Priority 5, Epic "]

cube/size x has no effect if used in a 2d axis

pgfplotstodo.tex:2164 Bug [open, Priority 5, Epic ']

copy paste from the manual does not copy empty lines - which is quite bad

pgfplotstodo.tex:2169 Bug [open, Priority 5, Epic 'fillbetween']

tikz intersections: the "store in macro" methods do not use global

pgfplotstodo.tex:2175 Bug [open, Priority 5, Epic 'fillbetween']

fill between:

pgfplotstodo.tex:2216 Bug [open, Priority 5, Epic 'fillbetween']

fill between / intersections lib bug: spurious intersections

pgfplotstodo.tex:2221 Bug [open, Priority 5, Epic "]

pgfplotstable appears to have problems with # in col names, compare

pgfplotstodo.tex:2356 **Bug** [open, Priority 5, Epic ']

lytick=data|does not work together with stacked plots because, by

pgfplotstodo.tex:2377 Bug [open, Priority 5, Epic "]

ytick=data combined with minor y tick num does not work as expected: minor

pgfplotstodo.tex:2385 **Bug** [open, Priority 5, Epic '']

no markers: it appears to be impossible to switch off markers, only for

pgfplotstodo.tex:2427 Bug [open, Priority 5, Epic 'boxplot']

box plots with draw direction=y and xtick=data fail to provide the correct

pgfplotstodo.tex:2436 Bug [open, Priority 5, Epic ']

|disablelogfilter,ymax=1e-6, ymode=log—fails. Apparently, the

pgfplotstodo.tex:2448 **Bug** [open, Priority 5, Epic ']

|\closedcycle|does not work together with jumps / interrupted plots

pgfplotstodo.tex:2472 Bug [open, Priority 5, Epic '']

auto tick label assignment can sometimes produce strange results:

pgfplotstodo.tex:2489 Bug [open, Priority 5, Epic ']

the 3d clip path is sometimes bad: perhaps it should be the bounding box

pgfplotstodo.tex:2505 Bug [open, Priority 5, Epic ']

One cannot manually load a table inside of a pgfplots axis if it contains

pgfplotstodo.tex:2509 **Bug** [open, Priority 5, Epic '']

lybarlegend— does not contain ybar (sourceforge 3482770)

pgfplotstodo.tex:2514 Bug [open, Priority 5, Epic "]

|refstyle|does only include partial information of the reference

pgfplotstodo.tex:2522 **Bug** [open, Priority 5, Epic "]

Using square brackets as first char inside of \legend leads to a

pgfplotstodo.tex:2530 Bug [open, Priority 5, Epic ']

Adding error bars/.cd to \addplot options causes the

pgfplotstodo.tex:2534 **Bug** [open, Priority 5, Epic 'quiver']

quiver plots: the clip path does not respect arrow paths

pgfplotstodo.tex:2562 Bug [open, Priority 5, Epic ']

Alignment bug: axis x line=middle combined with a yshift shifts the xlabel

pgfplotstodo.tex:2569 Bug [open, Priority 5, Epic ']

cannot provide clip path usage in pgfplots commands because of the nested

pgfplotstodo.tex:2574  $\mathbf{Bug}$  [open, Priority 5, Epic "]

|\pgfplotsforeachungrouped|cannot be combined with three or more

pgfplotstodo.tex:2632 Bug [open, Priority 5, Epic ']

the below example of a latex file gives the following error upon the 2nd

pgfplotstodo.tex:2725 **Bug** [open, Priority 5, Epic ']

groupplots + extra braces or foreach are incompatible.

pgfplotstodo.tex:2729  $\mathbf{Bug}$  [open, Priority 5, Epic '']

numplotspertype and forget plot and ybar interval yields errors.

pgfplotstodo.tex:2735 Bug [open, Priority 5, Epic "]

expression plotting and empty 'y' results in errors. Perhaps it would be

pgfplotstodo.tex:2766 Bug [open, Priority 5, Epic ']

/pgfplots/samples at and /tikz/samples at work on the same axe. Tantau says

pgfplotstodo.tex:2775 **Bug** [open, Priority 5, Epic 'groupplots']

groupplots: mixing 2d/3d in one groupplot doesn't reset 'zmin,zmax'?

pgfplotstodo.tex:2779 Bug [open, Priority 5, Epic ']

3D axes: it is difficult to get an 1:1 correspondence to tikz.

pgfplotstodo.tex:2787 Bug [open, Priority 5, Epic ']

3D axis: provide support for manual axis configuration,

pgfplotstodo.tex:2792 Bug [open, Priority 5, Epic ']

plot graphics: \ref legend doesn't work properly

pgfplotstodo.tex:2796 **Bug** [open, Priority 5, Epic 'ternary']

ternary axes: the 'marker clipping' doesn't work (naturally)

pgfplotstodo.tex:2801 Bug [open, Priority 5, Epic "]

contour:

pgfplotstodo.tex:2812 Bug [open, Priority 5, Epic ']

dimension too large sanity checking: TeX uses the maximum value instead.

pgfplotstodo.tex:2837 Bug [open, Priority 5, Epic 'quiver']

the quiver/scale arrows thing might need an "auto" option. If I don't add

pgfplotstodo.tex:2842 Bug [open, Priority 5, Epic ']

'1.23456e4;' in a log plot resulted in hard-to-read error messages.

pgfplotstodo.tex:2863 Bug [open, Priority 5, Epic 'Usability']

avoid dimension too large errors which occur due to a data range

pgfplotstodo.tex:2870 Bug [open, Priority 5, Epic ']

lyticklabels={<list>},extra y ticks=...— is incompatible since the

pgfplotstodo.tex:2876 **Bug** [open, Priority 5, Epic '']

The 'text depth' in legend entries is incompatible with 'text width'. The

pgfplotstodo.tex:2886 Bug [open, Priority 5, Epic ']

one can't provide 'disable log filter' to addplot (but it might be

pgfplotstodo.tex:2890 Bug [open, Priority 5, Epic ']

FPU: atan doesn't check for unbounded inputs.

pgfplotstodo.tex:2895 Bug [open, Priority 5, Epic ']

unbounded inputs: improve warning messages: they should not contain low

pgfplotstodo.tex:2903 **Bug** [open, Priority 5, Epic ']

the user interface to set 'tickwidth=0' for a SINGLE axis is not very good:

pgfplotstodo.tex:2912 Bug [open, Priority 5, Epic ']

I have seen that 'plot table' with very large files can produce pool size

pgfplotstodo.tex:2917 Bug [open, Priority 5, Epic ']

providing zmin/xmax to an axis activates 3D mode, ok - but lower

pgfplotstodo.tex:2921 Bug [open, Priority 5, Epic ']

one can't provide 'scale' as argument to a (3d) axis

pgfplotstodo.tex:2927 Bug [open, Priority 5, Epic ']

it may still happen that log-axes get only \*one\* tick label (in my case

pgfplotstodo.tex:2931 Bug [open, Priority 5, Epic "]

 $\log$  samples in plot expression for 3D plots

pgfplotstodo.tex:2935 **Bug** [open, Priority 5, Epic 'gnuplot']

different log bases and gnuplot

pgfplotstodo.tex:2947 **Bug** [open, Priority 5, Epic "]

I tried placing a named coordinate inside one axis and using it in another.

pgfplotstodo.tex:2954 **Bug** [open, Priority 5, Epic "]

plot coordinates doesn't check too well if

pgfplotstodo.tex:2959 **Bug** [open, Priority 5, Epic "]

the compat things are not yet complete: I wanted to check when it is really

pgfplotstodo.tex:2965 Bug [open, Priority 5, Epic 'nodes near coords']

the nodes near coords feature produces unexpected results when used

pgfplotstodo.tex:2969 **Bug** [open, Priority 5, Epic ']

the ybar style won't be set inside of \label{}

pgfplotstodo.tex:2973 Bug [open, Priority 5, Epic ']

axis equal for semilog plots is not correct (?)

pgfplotstodo.tex:2979 Bug [open, Priority 5, Epic '']

backwards compatibility problem:

pgfplotstodo.tex:2983 **Bug** [open, Priority 5, Epic '']

BUG: in empty axes, 'xtick=\empty' is ignored.

pgfplotstodo.tex:2991 Bug [open, Priority 5, Epic ']

The automatic tick labeling sometimes produces inconsistent or confusing

pgfplotstodo.tex:2997 Bug [open, Priority 5, Epic "]

3D: error bars and stacked plots need to be updated.

pgfplotstodo.tex:3032 Bug [open, Priority 5, Epic ']

addplot3 vs addplot:

pgfplotstodo.tex:2270 **Bug** [open, Priority 4, Epic "]

adding a post action with decoration to a pgfplots style results in an

pgfplotstodo.tex:1889 Bug [open, Priority 3, Epic ']

TikZ wastes time during its point evaluations (i.e. expressions of sorts

pgfplotstodo.tex:1965 **Bug** [open, Priority 3, Epic "]

contour plot handler does not allow 'name path'.

pgfplotstodo.tex:2333 Bug [open, Priority 3, Epic ']

Usability issues around histograms:

pgfplotstodo.tex:2422 Bug [open, Priority 3, Epic 'v2']

units and square brackets

pgfplotstodo.tex:2440 Bug [open, Priority 3, Epic 'gnuplot']

gnuplot interface: unbounded coords are not recognized as such (type=u).

pgfplotstodo.tex:2482  $\mathbf{Bug}$  [open, Priority 3, Epic '']

x tick scale label for style tiny has an unsuitable shift

pgfplotstodo.tex:3044 Bug [open, Priority 3, Epic ']

3D case: tick/grid lines are on top of the axis lines. This leads to

pgfplotstodo.tex:1629 Bug [open, Priority 2, Epic 'lua']

The following fails to compile with lualatex (due to the double quotes

pgfplotstodo.tex:2256 Bug [open, Priority 2, Epic "]

context + color mix produces spurious shifts

pgfplotstodo.tex:2265 Bug [open, Priority 2, Epic ']

Adding user decorations to axis lines might interfere with the

Loading a pgfplots library via \usetikzlibrary{pgfplots...} fails Bug [open, Priority 2, Epic ''] pgfplotstodo.tex:2372 The combination of 3d unit vectors and scale mode=stretch to fill is [open, Priority 2, Epic 'boxplot'] Bug pgfplotstodo.tex:2431 boxplots: predefined legend entries need to be improved [open, Priority 2, Epic 'gnuplot'] Bug pgfplotstodo.tex:2444 gnuplot interface + raw gnuplot does not handle log scale properly (?) [open, Priority 2, Epic 'layers'] pgfplotstodo.tex:2478 Bug new layered graphics stuff: the style changes of the layer config are read [open, Priority 2, Epic "] Bug pgfplotstodo.tex:2639 #3213889 hyperref boxes are in wrong position for vertical labels [open, Priority 2, Epic 'external'] Bug pgfplotstodo.tex:2771 potential incompatibility: clickable and external. The clickable lib writes Bug [open, Priority 2, Epic "] pgfplotstodo.tex:2807 OK: 'every node near coord/.append style=scale=0.7'

[open, Priority 2, Epic '']

Bug

pgfplotstodo.tex:2339

pgfplotstodo.tex:2832 Bug [open, Priority 2, Epic '']
contour external doesn't handle the ordering flag correctly.

[open, Priority 2, Epic '']

[open, Priority 2, Epic '']

view=090 and enlargelimits=auto is not always satisfactory: it

Bug

Bug

pgfplotstodo.tex:2818

pgfplotstodo.tex:2828

contour external doesn't handle explicitly provided matrix data (mesh/rows

pgfplotstodo.tex:2847 **Bug** [open, Priority 2, Epic '']

the title style for 'footnotesize' is not as I want it to: it doesn't

pgfplotstodo.tex:3003 Bug [open, Priority 2, Epic ']

interp shader is displayed transparently in evince

pgfplotstodo.tex:1132 Bug [open, Priority 1, Epic "]

The mark list produces a lot of

pgfplotstodo.tex:1836 Bug [open, Priority 1, Epic ']

the interrupt bounding box feature should still update the data bounding

pgfplotstodo.tex:1970 **Bug** [open, Priority 1, Epic '']

contour plot handler does not allow to specify draw and fill – which might

pgfplotstodo.tex:2350 **Bug** [open, Priority 1, Epic ']

|\usepackage[gray]{xcolor}|does not seem to work as good as for

pgfplotstodo.tex:2493  $\mathbf{Bug}$  [open, Priority 1, Epic '']

Internal coordmath framework: it is not used everywhere

pgfplotstodo.tex:2500 **Bug** [open, Priority 1, Epic '']

|lognumber format code— is a global variable and cannot be set for

pgfplotstodo.tex:2661 Bug [open, Priority 1, Epic ']

CRASH:

pgfplotstodo.tex:2709 **Bug** [open, Priority 1, Epic '']

Using 0 in pgfplots coordinate systems does not necessarily mean "no

pgfplotstodo.tex:2715 Bug [open, Priority 1, Epic ']

The legend has the text depth=0.15em initial configuration, which is

pgfplotstodo.tex:2720 **Bug** [open, Priority 1, Epic "]

the axis line combination styles can't be adjusted for 3D because they are

pgfplotstodo.tex:2823 **Bug** [open, Priority 1, Epic "]

there are a lot of .code 2 args styles which do not support spaces between

pgfplotstodo.tex:2881 Bug [open, Priority 1, Epic ']

the '/pgfplots/table/.search also' is overwritten during

pgfplotstodo.tex:3037 Bug [open, Priority 1, Epic "]

In 3D case axis [xyz] line != box, there is just ONE hyperplane.

pgfplotstodo.tex:3049 Bug [open, Priority 1, Epic ']

javascript stuff does not work if the complete figure is rotated

pgfplotstodo.tex:3065 **Bug** [open, Priority 1, Epic ']

javascript: incompatibility with external library:

## 6 Feature Proposals PGFPlots

pgfplotstodo.tex:7494 Feature Proposal [open, Priority 6, Epic ']

It is certainly possible to write some sort of CELL-BASED 'mesh/surf' shader

pgfplotstodo.tex:5138 Feature Proposal [open, Priority 5, Epic 'Usability']

parse elements of tick positions with math parser

pgfplotstodo.tex:5146 Feature Proposal [open, Priority 5, Epic ']

the 'xtick' syntax accepts only numbers, not even constant expressions are

pgfplotstodo.tex:5168 Feature Proposal [open, Priority 5, Epic ']

the following keys should process their argument with pgfmathparse:

[open, Priority 5, Epic 'fillbetween'] Feature Proposal pgfplotstodo.tex:5174 fillbetween: accept soft path={inner x range} or something like [open, Priority 5, Epic 'fillbetween'] Feature Proposal pgfplotstodo.tex:5185 allow predicates styles of sorts every intersection below y={0} Feature Proposal [open, Priority 5, Epic 'Usability'] pgfplotstodo.tex:5194 Given some PGF point, allow to access the high-level coordinates. Feature Proposal [open, Priority 5, Epic 'Usability'] pgfplotstodo.tex:5222 pgfplots math expressions always yield internal FPU formats which confuses [open, Priority 5, Epic 'Usability'] pgfplotstodo.tex:5230 Feature Proposal The distinction into survey phase and visualization phase is technically [open, Priority 5, Epic 'z buffer'] Feature Proposal pgfplotstodo.tex:5243 Pgfplots requires user input to distinguish between parameterized 3d plots [open, Priority 5, Epic ''] Feature Proposal pgfplotstodo.tex:5254 support the /data point/x method for all key filters and in all Feature Proposal [open, Priority 5, Epic 'polar'] pgfplotstodo.tex:5263 polar plots should allow to paint generate tick labels for the radius on Feature Proposal [open, Priority 5, Epic ''] pgfplotstodo.tex:5267 new plot structure: use the '/data point' key interface coming with pgf CVS [open, Priority 5, Epic ''] Feature Proposal pgfplotstodo.tex:5273 Idea for input stuff: implement high level user interface for coordinate pgfplotstodo.tex:5278 Feature Proposal [open, Priority 5, Epic 'polar'] boxed polar plots

Feature Proposal [open, Priority 5, Epic 'v2'] pgfplotstodo.tex:5296 it would be nice to have a way to overcome weaknesses of the old pgfplots [open, Priority 5, Epic ''] Feature Proposal pgfplotstodo.tex:5301 add support for list and make under windows. Perhaps powershell Feature Proposal [open, Priority 5, Epic ''] pgfplotstodo.tex:5337 Loading matrix data which contains just Z coordinates is quite involved. Feature Proposal [open, Priority 5, Epic ''] pgfplotstodo.tex:5345 One question that I got was about support for hexbin plots. Something along [open, Priority 5, Epic 'Stefan Pinnow CM'] pgfplotstodo.tex:5370 Feature Proposal simplify visualization of barymetric surface data Feature Proposal [open, Priority 5, Epic 'Stefan Pinnow CM'] pgfplotstodo.tex:5409 add support to build a nonuniform colormap of a colormap [open, Priority 5, Epic 'Stefan Pinnow CM'] Feature Proposal pgfplotstodo.tex:5413 allow colormaps of size 1 [open, Priority 5, Epic 'Stefan Pinnow CM'] Feature Proposal pgfplotstodo.tex:5444 allow to define colormaps with arbitrary positions which are then mapped to Feature Proposal [open, Priority 5, Epic 'Stefan Pinnow CM'] pgfplotstodo.tex:5522 Allow to build colormaps based on what we see in a colorbar (not map!) [open, Priority 5, Epic 'Stefan Pinnow CM'] Feature Proposal pgfplotstodo.tex:5539 |colorbarstyle=ytick data-Feature Proposal [open, Priority 5, Epic 'Stefan Pinnow CM'] pgfplotstodo.tex:5559 color of colormap mit piecewise const

Feature Proposal [open, Priority 5, Epic ''] pgfplotstodo.tex:5563 implement waterfall charts (?) [open, Priority 5, Epic ''] Feature Proposal pgfplotstodo.tex:5614 finish + document plot yshift auto (idea: allow something like bar Feature Proposal [open, Priority 5, Epic ''] pgfplotstodo.tex:5619 it would be very interesting to allow more flexible handling of empty lines Feature Proposal [open, Priority 5, Epic ''] pgfplotstodo.tex:5624 the 'table/y index' should be changed. It should be min(numcols,1) instead [open, Priority 5, Epic ''] pgfplotstodo.tex:5640 Feature Proposal it would be useful if the clipping could be disabled for certain parts of Feature Proposal [open, Priority 5, Epic "] pgfplotstodo.tex:5690 optimization ideas: Feature Proposal [open, Priority 5, Epic ''] pgfplotstodo.tex:5695 perhaps math style [open, Priority 5, Epic ''] Feature Proposal pgfplotstodo.tex:5701 provide access to axis limits and data bounding box. Feature Proposal [open, Priority 5, Epic ''] pgfplotstodo.tex:5706 allow math expressions for axis limits etc. Idea: try float parsing routine; Feature Proposal [open, Priority 5, Epic ''] pgfplotstodo.tex:5713 write a public math interface which provides access to axis internals like pgfplotstodo.tex:5755 Feature Proposal [open, Priority 5, Epic ''] Store the axis limits into the axis' node as saved macros. This would allow

pgfplotstodo.tex:5761 Feature Proposal [open, Priority 5, Epic '']

I could provide public macros for the data transformations (and inverse

pgfplotstodo.tex:5765 Feature Proposal [open, Priority 5, Epic ']

cycle list should be implemented using an array structure. That's faster.

pgfplotstodo.tex:5772 Feature Proposal [open, Priority 5, Epic ']

the error bar implementation is relatively inefficient. Think about

pgfplotstodo.tex:5805 Feature Proposal [open, Priority 5, Epic ']

think about using a combination of the visualization engine of pgf CVS and

pgfplotstodo.tex:5815 Feature Proposal [open, Priority 5, Epic 'polar']

polar axes and axis x line shift (i.e. shift the circles).

pgfplotstodo.tex:5829 Feature Proposal [open, Priority 5, Epic ']

add expressions 'row' and 'col' which expand to the current row/col index

pgfplotstodo.tex:5834 Feature Proposal [open, Priority 5, Epic 'fillbetween']

fillbetween: add support to style the "positive" and "negative" region,

pgfplotstodo.tex:5855 Feature Proposal [open, Priority 5, Epic ']

http://tex.stackexchange.com/questions/247973/customize-length-of-y-major-grids-in-pgfplots

pgfplotstodo.tex:5866 Feature Proposal [open, Priority 5, Epic ']

Add option of sorts "shift along outer normal vector of current axis"

pgfplotstodo.tex:5883 Feature Proposal [open, Priority 5, Epic ']

implement special math formulas for cube roots

pgfplotstodo.tex:5889 Feature Proposal [open, Priority 5, Epic ']

allow a simple way to connect coordinates of different axes, i.e.

add enlarge limits=to next tick label, see [open, Priority 5, Epic ''] Feature Proposal pgfplotstodo.tex:5933 allow # inside of inline tables: the following does not work in any Feature Proposal [open, Priority 5, Epic ''] pgfplotstodo.tex:5945 write a script which applies the entire "release todo" over night: Feature Proposal [open, Priority 5, Epic ''] pgfplotstodo.tex:5952 stream plots: contour plots in which each contour line is actually of type [open, Priority 5, Epic ''] pgfplotstodo.tex:5956 Feature Proposal lua backend support for restrict expr to domain Feature Proposal [open, Priority 5, Epic "] pgfplotstodo.tex:6170 improve the outcome of log ticks with fixed point if the data range [open, Priority 5, Epic ''] Feature Proposal pgfplotstodo.tex:6177 Add support for a transformation which allows TIME input data (i.e. [open, Priority 5, Epic ''] Feature Proposal pgfplotstodo.tex:6185 slanted and sloped text (projected onto some axis plane)

[open, Priority 5, Epic '']

Feature Proposal

pgfplotstodo.tex:5894

pgfplotstodo.tex:6192

pgfplotstodo.tex:6200

pgfplotstodo.tex:6210 Feature Proposal [open, Priority 5, Epic ''] add styles to format seconds using some time format

Feature Proposal

Feature Proposal

[open, Priority 5, Epic 'external']

external lib: rerun externalization in case of unresolved references.

[open, Priority 5, Epic '']

allow some simply style of sorts "xtick should have a distance of 10. Get

 ${\tt pgfplotstodo.tex:6217} \qquad \textbf{Feature Proposal} \quad [open, Priority \ 5, \ Epic \ ``]$ 

table package: Add style "modify content for the following row indices"

pgfplotstodo.tex:6243 Feature Proposal [open, Priority 5, Epic ']

ich bin es nochmal. Ich habe nochmal eine Anmerkung zu den decorations. Ich

pgfplotstodo.tex:6253 Feature Proposal [open, Priority 5, Epic ']

Unbounded point meta data should be filtered out.

pgfplotstodo.tex:6261 Feature Proposal [open, Priority 5, Epic 'graphics']

addplot graphics: support "scale to natural dimensions" of the input

pgfplotstodo.tex:6284 Feature Proposal [open, Priority 5, Epic ']

bullet graphs:

pgfplotstodo.tex:6292 Feature Proposal [open, Priority 5, Epic ']

add "stackable tick labels" (tick labels with vertical shifts if they are

pgfplotstodo.tex:6302 Feature Proposal [open, Priority 5, Epic ']

Allow to shift (x) tick labels vertically if they are too dense.

pgfplotstodo.tex:6337 Feature Proposal [open, Priority 5, Epic ']

suppress tick-line cross in 3d for view directions in which the cross

pgfplotstodo.tex:6362 Feature Proposal [open, Priority 5, Epic ']

the ... syntax in tick label position lists is inherently limited to

pgfplotstodo.tex:6374 Feature Proposal [open, Priority 5, Epic ']

Implement document-level javascript for the clickable lib WITHOUT the  $\,$ 

pgfplotstodo.tex:6381 Feature Proposal [open, Priority 5, Epic ']

Implement a custom legend environment such that one doesn't need to collect

[open, Priority 5, Epic 'v2'] Feature Proposal pgfplotstodo.tex:6396 improve grid line placement for grouped bar plots: grid lines should not [open, Priority 5, Epic 'Bar plots'] Feature Proposal pgfplotstodo.tex:6404 provide a way to provide more customization to stacked plots as in Feature Proposal [open, Priority 5, Epic 'Bar plots'] pgfplotstodo.tex:6413 staggered tick labels Feature Proposal [open, Priority 5, Epic 'Bar plots'] pgfplotstodo.tex:6451 interrupted bar plots [open, Priority 5, Epic 'Bar plots'] pgfplotstodo.tex:6456 Feature Proposal bar plots: Introduce significance stars (see GROUP BARS on Feature Proposal [open, Priority 5, Epic 'Bar plots'] pgfplotstodo.tex:6746 GROUP BARS [open, Priority 5, Epic 'Bar plots'] Feature Proposal pgfplotstodo.tex:6784 Mails from Stefan Ruhstorfer: [open, Priority 5, Epic 'Bar plots'] Feature Proposal pgfplotstodo.tex:6794 It is surprisingly difficult to have JUST axis ticks and tick labels and Feature Proposal [open, Priority 5, Epic 'Bar plots'] pgfplotstodo.tex:6799 Allow 3d bar plots (see also [open, Priority 5, Epic 'Bar plots'] Feature Proposal pgfplotstodo.tex:6820 Individual bars: allow to modify / adjust the bar plot handler(s) such that pgfplotstodo.tex:6832 Feature Proposal [open, Priority 5, Epic 'Bar plots'] bar plots: auto-select axis limits, unit size, bar width, and bar shift.

On input: provide the desired distance between adjacent bars. The bar width

pgfplotstodo.tex:6869 Feature Proposal [open, Priority 5, Epic 'Bar plots']

bar plots: if you provide both, the desired distance between adjacent bars

pgfplotstodo.tex:6875 Feature Proposal [open, Priority 5, Epic '']

allow better default styles for bar plots, compare

pgfplotstodo.tex:6882 Feature Proposal [open, Priority 5, Epic 'polar']

allow to rotate polar plots and fix rotation of tick labels.

pgfplotstodo.tex:6889 Feature Proposal [open, Priority 5, Epic 'polar']

polar axes: polar bar plots (see sourceforge feature request and

pgfplotstodo.tex:6894 Feature Proposal [open, Priority 5, Epic 'Bar plots']

chunked bars: interrupt the bars at predefined coordinates (like white grid

pgfplotstodo.tex:6908 Feature Proposal [open, Priority 5, Epic 'Bar plots']

bar plots:

pgfplotstodo.tex:6913 Feature Proposal [open, Priority 5, Epic 'Bar plots']

let stacked bar plots respect the line width when stacking them on top of

Default bar plot styles should always include the (correct) origin in the

pgfplotstodo.tex:6927 Feature Proposal [open, Priority 5, Epic 'Bar plots']

It should be simpler to customize the position of nodes near coords in a

pgfplotstodo.tex:6936 Feature Proposal [open, Priority 5, Epic 'layers']

Layered graphics: consider drawing tick lines which are on the "outer

 ${\tt pgfplotstodo.tex:6944} \qquad \textbf{Feature Proposal} \quad [open, Priority \ 5, Epic \ \lq\lq]$ 

allow support for units in bar width and bar shift (compare

pgfplotstodo.tex:6955 Feature Proposal [open, Priority 5, Epic 'external']

it would be nice to have automatic PNG export for huge graphics. Such an

pgfplotstodo.tex:6972 Feature Proposal [open, Priority 5, Epic ']

There is no simple way to provide LOG colorbars:

pgfplotstodo.tex:6976 Feature Proposal [open, Priority 5, Epic ']

Cases-statement in math parser

pgfplotstodo.tex:6981 Feature Proposal [open, Priority 5, Epic ']

the empty line feature should produce a log notice when it finds an

pgfplotstodo.tex:6986 Feature Proposal [open, Priority 5, Epic ']

Support something like

pgfplotstodo.tex:6990 Feature Proposal [open, Priority 5, Epic ']

add 'force 2d axis' key (or similar)

pgfplotstodo.tex:6999 Feature Proposal [open, Priority 5, Epic ']

Support standard filters for hist and its variants.

pgfplotstodo.tex:7004 Feature Proposal [open, Priority 5, Epic ']

Table Package: support context-based row predicates (some kind of

pgfplotstodo.tex:7009 Feature Proposal [open, Priority 5, Epic ']

Support selection of individual 3D axis lines which shall be drawn (or

pgfplotstodo.tex:7013 Feature Proposal [open, Priority 5, Epic ']

linear regression which passes through (0,0) (see mail of Stefan Pinnow)

plot graphics 3D: handle the case when the first two points share the same [open, Priority 5, Epic ''] Feature Proposal pgfplotstodo.tex:7022 hist does not allow modifications to the data range Feature Proposal [open, Priority 5, Epic "] pgfplotstodo.tex:7026 feature to replicate axis descriptions on both sides Feature Proposal [open, Priority 5, Epic 'external'] pgfplotstodo.tex:7033 couldn't you add something like [open, Priority 5, Epic ''] pgfplotstodo.tex:7038 Feature Proposal make work \matrix in \matrix so one can use groupplots or Feature Proposal [open, Priority 5, Epic 'groupplots'] pgfplotstodo.tex:7067 groupplots: group-wide axis labels Feature Proposal [open, Priority 5, Epic ''] pgfplotstodo.tex:7078 is there a way to get the current row/col index during addplot? Feature Proposal [open, Priority 5, Epic ''] pgfplotstodo.tex:7104 plot shell: Feature Proposal [open, Priority 5, Epic ''] pgfplotstodo.tex:7113 new \plotnumofactualtype thing: if you set /tikz/ plot handlers in Feature Proposal [open, Priority 5, Epic 'polar'] pgfplotstodo.tex:7135 polar:

[open, Priority 5, Epic '']

Feature Proposal

pgfplotstodo.tex:7018

pgfplotstodo.tex:7139

Feature Proposal

[open, Priority 5, Epic "]

patch visualization: provide displacement input format

pgfplotstodo.tex:7164 Feature Proposal [open, Priority 5, Epic 'quiver']

quiver plots:

pgfplotstodo.tex:7168 Feature Proposal [open, Priority 5, Epic ']

plot expression: make the sampling parameters available within survey phase

pgfplotstodo.tex:7172 Feature Proposal [open, Priority 5, Epic '']

the table package uses a lot of logs – but it can't change the log basis.

pgfplotstodo.tex:7177 Feature Proposal [open, Priority 5, Epic ']

3D + axis line variants: someone might prefer GRID LINES as for the boxed

pgfplotstodo.tex:7222 Feature Proposal [open, Priority 5, Epic ']

Mail by Hubertus Bromberger:

pgfplotstodo.tex:7232 Feature Proposal [open, Priority 5, Epic '']

add something like

pgfplotstodo.tex:7245 Feature Proposal [open, Priority 5, Epic 'ternary']

ternary diagrams todo:

pgfplotstodo.tex:7258 Feature Proposal [open, Priority 5, Epic ']

contour:

filled contour plots (prototype is 10% ready)

pgfplotstodo.tex:7276 Feature Proposal [open, Priority 5, Epic ']

DUPLICATE

pgfplotstodo.tex:7298 Feature Proposal [open, Priority 5, Epic ']

contour draft TODO:

implement simplified constructions to access DIFFERENCE coordinates. [open, Priority 5, Epic 'pgfplotstable'] Feature Proposal pgfplotstodo.tex:7314 table package and axes should improve their communication. Feature Proposal [open, Priority 5, Epic ''] pgfplotstodo.tex:7319 provide and document access to (sanitized?) mesh/rows and mesh/cols fields Feature Proposal [open, Priority 5, Epic ''] pgfplotstodo.tex:7326 Praktisch fnde ich, wenn man folgende Dinge spezifizieren kann: [open, Priority 5, Epic ''] pgfplotstodo.tex:7350 Feature Proposal improve support for multiple ordinates Feature Proposal [open, Priority 5, Epic "] pgfplotstodo.tex:7356 provide a \pgfplotspathcube command as generalization from the cube [open, Priority 5, Epic ''] Feature Proposal pgfplotstodo.tex:7365 re-implement sampling loops. I should discard the compatibility with foreach Feature Proposal [open, Priority 5, Epic ''] pgfplotstodo.tex:7370 what about a feature like 'draw[xmin=...,xmax=...] fitline between points Feature Proposal [open, Priority 5, Epic ''] pgfplotstodo.tex:7374 interpolate missing coordinates for stacked plots. Feature Proposal [open, Priority 5, Epic 'z buffer'] pgfplotstodo.tex:7378 the coordindex shouldn't be changed by z buffer=sort pgfplotstodo.tex:7415 Feature Proposal [open, Priority 5, Epic 'pgfplotstable']

[open, Priority 5, Epic '']

Feature Proposal

pgfplotstodo.tex:7303

table package: provide abstract layer for low level storage interface.

pgfplotstodo.tex:7506 Feature Proposal [open, Priority 5, Epic '']

imagesc combined with input of sorts

pgfplotstodo.tex:7550 Feature Proposal [open, Priority 5, Epic ']

Ein weiteres wnschenswertes Feature aus meiner Email ist, dass man die

pgfplotstodo.tex:7678 Feature Proposal [open, Priority 5, Epic 'colormap']

finish colormap access=direct

pgfplotstodo.tex:7682 Feature Proposal [open, Priority 5, Epic 'legend']

 $support \verb|\multicolumn| for legends$ 

pgfplotstodo.tex:7687 Feature Proposal [open, Priority 5, Epic 'legend']

it appears line breaks in legend descriptions are a problem (?)

pgfplotstodo.tex:7691 Feature Proposal [open, Priority 5, Epic 'pgfplotstable']

pgfplotstable file open protocol: provide public listener interface

pgfplotstodo.tex:7722 Feature Proposal [open, Priority 5, Epic '']

precise width calculation idea:

pgfplotstodo.tex:7726 Feature Proposal [open, Priority 5, Epic ']

pgfplotstodo.tex:6356 Feature Proposal [open, Priority 4, Epic ']

regression line computation: also generate macros containing the

pgfplotstodo.tex:7118 Feature Proposal [open, Priority 3, Epic 'Performance']

disable bounding box updated during addplot – it makes no sense and wastes

pgfplotstodo.tex:6347 Feature Proposal [open, Priority 2, Epic ']

faceted allows to draw the entire rectangle.

pgfplotstodo.tex:5249 Feature Proposal [open, Priority 1, Epic 'fillbetween']

Optimization: if the same plot contains name intersections and

pgfplotstodo.tex:7058 Feature Proposal [open, Priority 1, Epic ']

nested axes would be a nice feature.

pgfplotstodo.tex:7074 Feature Proposal [open, Priority 1, Epic ']

log plots: minor tick num would be useful here! If tick labels are placed

pgfplotstodo.tex:7733 Feature Proposal [cancelled, Priority 5, Epic ']

idea: 'mesh/ordering=auto'. Just check for 'x varies' and 'y varies'! The