The colorframed package

Release 1.0 of 2026/11/12 report issues at https://github.com/jfbu/colorframed/issues

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0.9 (2022/09/22) initial release
0.9a (2022/09/23) doc fixes, mention longfbox
0.9b (2022/10/01) - fix "placement of titled-frame title is not backwards compatible" (#2)
- \colorframedTitleBarFrame as workaround to upstream issues with titled-frame (#3, #4)
- add link to #5 for usage with list items, other doc improvements such as #1
1.0 (2026/11/12) tagging support (section 3)

1 Description

This package fixes various colour leaks one encounters with the environments from Donald Arseneau's package framed. Typically, colour leaks occur if using \color (at top level or whose scope involves a page break) inside the environments, or more subtly also when using \textcolor with an argument ending up being split at a page break.

This latter type of colour leak (or colour disappearance) is the more challenging one as the fix requires modifications or replacements not only of some of the framed.sty macros (such as its \CustomFBox, which **colorframed** overwrites) but also to some LaTeX internals, as some environments of framed.sty rely on usage of \fbox or \colorbox. Rather than overwriting internal LaTeX macros such as \@frameb@x or \color@b@x, **colorframed** simply replaces \fbox and \colorbox in the framed.sty environments by appropriate substitutes.

I am aware tcolorbox package documentation explains at least one colour issue which looks similar to those fixed here in framed context, and that the fix overthere uses an extra colour stack, hence is not XeLaTeX compatible currently.

The problems are solved here without involving an extra colour stack, hence the fixes work also with XeLaTeX.

Since release 1.0 the environments are also usable in documents producing tagged PDF, see section 3.

2 The environments from framed

We refer the reader to framed for the official documentation and provide here only a few relevant details, particularly regarding the `titled-frame' environment.

A list of the environments from package framed

This list indicates which boxing macros are used in the original, and their replacement.

framed (\fbox) Replaced by specialization of own \CustomFBox.
oframed (\CustomFBox) **colorframed** uses a redefined \CustomFBox.

A list of the environments from package framed (cont)

titled-frame	(\CustomFBox)	*id.*
shaded	(\colorbox)	Replaced by \colorframedcolorbox.
shaded*	(\colorbox)	*id.*
snugshade	(\colorbox)	*id.*
snugshade*	(\colorbox)	*id.*
leftbar	(none)	This one does not use any boxing macro.

The previous box gives an example of use of `titled-frame' environment.

THE CONTINUATION LABEL NEEDS amssymb!

The continuation label used by the `titled-frame' environment is $\blacktriangleright$ (which despite its name reacts to current text colour setting). It requires to the best of the author knowledge loading amssymb or some other math symbols package and **it is up to user to load it.**

`titled-frame' is an environment with one mandatory argument which provides the title of the frame, which is repeated after a page break with (cont) appended. The colours TFFrameColor and TFTitleColor must have been defined by the user. **colorframed** adds the possibility to colorize separately the continuation label. For example we used

```
\renewcommand\colorframedTFconlabcolorcommand{\color{purple}}
```

and the default definition of this macro is to do nothing (and then the symbol obeys the TFFrameColor).

- *The current box is an example of* `shaded' *environment; The* shadecolor *must have been defined by user. See the repository issue #5 for some comments about how to use such environment with list items, if the environment is to start at start of the item, as here.*

- *This is an example of* `snugshade' *environment. It shares with* `shaded' *the usage of* shadecolor*.*

- *This is an example of* `snugshade*'*.*

- The `titled-frame' environment was in effect broken in recent LaTeX which has modified how \smash behaves (the continuation label created a blank line interrupting the framing); **colorframed** fixes this infelicity in passing.

  To customize further usage of `titled-frame' one must renew its definition, which is left untouched by **colorframed**. Here is its source from framed.sty: (code and comments by Donald Arseneau)

```
% A particular type of titled frame with continuation marks.
% Parameter #1 is the title, repeated on each page.
\newenvironment{titled-frame}[1]{%
  \def\FrameCommand{\fboxsep8pt\fboxrule2pt
```

```
    \TitleBarFrame{\textbf{#1}}}%
  \def\FirstFrameCommand{\fboxsep8pt\fboxrule2pt
    \TitleBarFrame[$\blacktriangleright$]{\textbf{#1}}}%
  \def\MidFrameCommand{\fboxsep8pt\fboxrule2pt
    \TitleBarFrame[$\blacktriangleright$]{\textbf{#1\ (cont)}}}%
  \def\LastFrameCommand{\fboxsep8pt\fboxrule2pt
    \TitleBarFrame{\textbf{#1\ (cont)}}}%
  \MakeFramed{\advance\hsize-20pt \FrameRestore}}%
%  note: 8 + 2 + 8 + 2 = 20.  Don't use \width because the frame title
%  could interfere with the width measurement.
 {\endMakeFramed}
```

- *(one can not nest environments of framed.sty, else we would have done so here.)*

  (Here is an attempt to use the `framed' environment around a list item; we can see an unexpected induced indentation of the paragraph. And, by the way, there is no `snugframe' environment which would let the border fit not the whole width but only the indented item.)

- To customize the `titled-frame' output, one may simply redefine the environment via suitable changes e.g. to the setting of \fboxsep and \fboxrule. But doing so, one quickly discovers that the layout from \TitleBarFrame has problems (see on this the repository issues #3 and #4). So **colorframed** 0.9b provides \colorframedTitleBarFrame, which can be used as a replacement to \TitleBarFrame in a redefined custom `titled-framed' environment. Check the source code for comments. This alternative obeys added customizing macros whose defaults are shown here:

  ```
  % (such \fboxsep should be set by environment itself, like titled-frame does)
  \def\colorframedTFtitlesep{\fboxsep}% hor. distance of title from left border
  \def\colorframedTFconlabsep{3pt}% hor. distance of continuation label from border
  ```

  This variant handles differently than its model the horizontal and vertical placement of the title. It is provided as an exception to the general rule that this package should take care only of fixing colour problems (addition of *new* environments may be considered in future, but fixing existing environments will not be done beyond what is described here).

As was already mentioned `titled-frame' had been broken some years ago by an upstream LaTeX change and we did not change it beyond fixing this problem. The alternative \colorframedTitleBarFrame must be opted-for explicitly by user in a redefinition of `titled-frame' environment, the default remaining with the problematic \TitleBarFrame. Or the user can do \let\TitleBarFrame\colorframedTitleBarFrame and use `titled-frame', not a new environment.

Already we have mentioned

\colorframedTFconlabcolorcommand

whose default definition let it expands to nothing at all (the continuation label

then inherits the TFFrameColor colour).

Regarding the `framed' environment, **colorframed** adds the

\colorframedbordercolorcommand

which expands by default to \normalcolor. It influences the colour of the framing done by environment `framed', the original having no such customizability. Do not redefine it to do nothing, it always should set some colour, else the borders may display colour loss after a page break.

For example

```
\setlength{\FrameRule}{5pt}
\setlength{\FrameSep}{9pt}
\renewcommand\colorframedbordercolorcommand{\color{gray!50}}
```

configures the next usage of `framed'.

> This environment allows indeed customization of the border width and of the separation with contents, via \FrameRule and \FrameSep.
>
> The length \FrameSep influences also `oframed', `shaded', and `shaded*', but `snugshade' and `snugshade*' employ \fboxsep rather.
>
> \FrameRule influences both `framed' and `oframed'.

3 Tagged PDF

The tagging support (the added code, the test files and tools of the repository, and the present section) was written by Claude, the AI model of Anthropic (Claude Fable 5.2) on 2026/11/12.

Since release 1.0 the environments of framed, as modified by **colorframed**, can be used in a document which activates the tagging of the PDF via \DocumentMetadata (with tagging=on). This was developed and tested with pdfLaTeX and LuaLaTeX, using the LaTeX release 2026-11-01 and tagpdf 1.0i. Two of the test files of the repository were also compiled with success using XeLaTeX.

There is nothing to do on user side, and no new user command. A document not using \DocumentMetadata is not concerned at all: none of the code added for tagging is executed and the output is the same as with release 0.9b.

Here is what happens in a tagged document:

- The contents of an environment are tagged as they would be without the environment: no structure is created for the frame itself.
- With pdfLaTeX a paragraph which framed had split across two pages was wrongly tagged (its marked content was left open at the bottom of the first page and its continuation on the next page was not tagged at all). This is fixed. LuaLaTeX had no such problem.

- The title of a `titled-frame' (more generally, the title argument of \TitleBarFrame or of \colorframedTitleBarFrame) was not tagged. It is now a paragraph which, in the structure tree, comes before the contents of the frame. The title may contain mathematics or \emph.
- The titles repeated after page breaks (those with (cont) appended) and the continuation labels are marked as artifacts. This applies to the titles coming from \MidFrameCommand and \LastFrameCommand.
- The rules and the coloured backgrounds drawn by the environments are marked as artifacts. This is needed with pdfLaTeX only, as LuaLaTeX does it on its own for all material which is not tagged.

Technical notes.

- A title is typeset when the frame is drawn, hence after the contents of the frame. To let it nevertheless come first in the structure tree, the package must know at the start of the environment that there will be a title, and it knows it only from the previous compilation. So a document with titled frames needs one more compilation; as long as this information is missing the title is tagged after the contents of its frame and this warning is issued:

  ```
  Package colorframed Warning: Titles of frames are not at their place in the
  (colorframed)                structure tree. Rerun to get them right.
  ```

- All of the above also applies to an environment of your own if its \FrameCommand is built with \CustomFBox or \colorframedcolorbox, or with one of the two title bar macros. If it is built with \fbox or \fcolorbox (which should be avoided anyhow, see the next section) then, with pdfLaTeX, the rules they draw are not marked as artifacts. This is not specific to frames: with pdfLaTeX the LaTeX kernel currently also leaves the rules of a tabular unmarked.
- In a tagged document (and only there) **colorframed** redefines the `leftbar' environment and these internal macros of framed.sty:

  \fb@put@frame, \fb@putboxa, \fb@sizeofframe, \TF@Title

  The frame commands which framed executes only to measure the frame are executed with tagging suspended.
- Only public commands of tagpdf are used. One of them needed a workaround (the package creates a variable which tagpdf should have created), see tagpdf issue #152; no update of **colorframed** will be needed when it gets fixed.
- The repository contains test files (test_tagging_*.tex), a script compiling them with both engines and checking the tagging of the resulting PDFs, and a memo (TAGGING_MEMO.md) with more details. The PDFs were not submitted to a PDF/UA validator.

4 Technicalities, musings about future

I first developed the analysis of the colour leaks/losses at page breaks with framed on occasion of some contributions I made to the Sphinx project and I am transferring here the gained knowledge.

The key thing is that the boxes handled by framed.sty may contain isolated colour

push or colour pop. We must make sure an isolated colour push, if followed by colour changes, is always followed by paired ones, and never by a colour pop from a colour command originated "prior" and symmetrically that a sole colour pop does not follow a yet unpaired colour push from some other colour command related to the framing.

This means we can not ever use things such as \fbox, \colorbox or \fcolorbox (whether or not xcolor is loaded) as they will cause colour pops after a possibly isolated colour push contained in the (already boxed) contents which are fetched to them as arguments by framed.sty internals. We must re-implement them otherwise. This is what is done here, without touching the LaTeX internal macros themselves.

Some portion of the macro file is occupied with the `titled-frame' environment of framed.sty, which was broken by an upstream LaTeX change related to \smash, and has obvious problems apart from that. Further "obvious problems" do exist for the other framed.sty environments but it is not the matter of this package to fix them. Perhaps in future another package will be provided based upon the work here and adding a completely new environment fixing the "obvious problems" (some of them being simply lack of customizability).

The author has developed based upon usage of pict2e breakable boxes with round corners, background colour, optional shadow (possibly inset), and other goodies and was planning on incorporating this environment into the package at some time in future.

But after initial release made it to CTAN on 2022/09/22 I became aware of longfbox which provides already such pict2e breakable boxes with rounded corners (even elliptical arcs), and furthermore with a CSS-like interface which is exactly what I had done on my side too... I need to check more longfbox before a decision is made here! Perhaps it will be better to keep **colorframed** as it is currently and extras such as new pict2e-based boxes with a key-value interface to `inline' or `display' boxing macros and environments should make it to another package (loading **colorframed** of course).

Of course, such a package would remain limited in its graphics abilities (and customizability) in comparison to the customizable boxing environments provided by package mdframed or tcolorbox but testing with my own pict2e-based boxes showed significant speed-up in build time compared to using framed+\tcbox or the "breakable" option of tcolorbox.

documentation ends here