The colorframed package

Release 1.1 of 2026/11/16 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 4).
1.1 (2026/11/16) tagging:
- each environment (inc. `leftbar') is a Sect,
- the title of a titled-frame is its Caption (#6).

titled-frame:
- defaults provided for shadecolor, TFFrameColor and TFTitleColor (#9),
- ***breaking change*** it now uses \colorframedTitleBarFrame, hence ceases producing exact same output as framed's original (this is reversible by user),
- new customization macros, inclusive of layout parameters,
- the continuation mark does not require amssymb anymore but uses its \blacktriangleright if loaded.

doc: summary of the customization interface (section 3).

1 Description

This package, originally delivered in 2022, fixes multiple sources of potential colour leaks one encounters with the environments from the original package framed.

In November 2026, with releases 1.0 and 1.1, it got extended with tagging support. Thanks to Fable 5.2, Matthew Bertucci and Ulrike Fischer. See section 4.

Release 1.1 slightly modifies the layout of the `titled-frame' environment (earlier releases mentioned to the user some issues with the title rendering macro used by the original package, and provided a replacement \colorframedTitleBarFrame but did not use it per default).

Technical brief on the colour leaks

Typically, colour leaks occurred if using \color at top level or with a scope including what will be a page break inside the rendered 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 ▶

Technical brief on the colour leaks (cont)

which looks similar to those fixed here in framed context, and that the fix over-there 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. None of the LaTeX internals are modified.

2 The environments from framed

We advise the reader to first read the framed documentation to become familiar with the interface, prior to continue with this documentation. But the people in a hurry can also check directly Section 3.

A list of the environments from package framed

This list indicates which boxing macros are used in the original, and their replacement (this technical information has no direct relevance to user level usage).

framed	(\fbox)	Replaced by specialization of own \CustomFBox.
oframed	(\CustomFBox)	colorframed uses a redefined \CustomFBox.
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 was an example of use of the `titled-frame' environment.

THE CONTINUATION LABEL AND amssymb

The continuation label used by the `titled-frame' environment of framed 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 without it a `titled-frame' crossing a page gave an ``Undefined control sequence'' error.

Since release 1.1 the label is \colorframedContinuationMark. Its default uses $\blacktriangleright$ if this symbol is defined at \begin{document}, and else $\triangleright$, which needs no package.

`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.

colorframed adds the possibility to colorize separately the continuation label. For example we used

```
\renewcommand\colorframedTFconlabcolorcommand{\color{TFTitleColor}}
```

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

`titled-frame' uses the colours TFFrameColor and TFTitleColor. Since release 1.1, if the document does not define them, they default to those used here (teal!20 in xcolor notation, and a dark purple, rgb .5,0,.2); formerly, and following on the original package, they were left undefined. Using `titled-frame' in the document without having defined them caused color (or xcolor) to report an error.

Similarly, the original package leaves undefined the shadecolor used by the `shaded' and `snugshade' environments. It now defaults to lightgray!25.

These colour defaults are set at \begin{document}, if the colours have been left undefined til then.

- *The current box is an example of* `shaded' *environment. 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*'*.*

  - *(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.)

- The layout of the \TitleBarFrame of framed has problems, which show up for example if \fboxsep and \fboxrule are given other values than those of `titled-frame' (see on this the repository issues #3 and #4). So **colorframed** 0.9b provided a replacement, which handles differently the horizontal and vertical placement of the title, and lets a long title use several lines.

  Its name is \colorframedTitleBarFrame.

  Since release 1.1 the `titled-frame' environment uses this replacement: formerly this had to be opted-for via a redefinition of the environment. Compared to release 1.0 the title and the continuation mark are thus placed a bit differently. The former layout is recovered with

  ```
  \let\colorframedTitleBarFrame\TitleBarFrame
  ```

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 \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 Summary of the customization interface

This section was written on November 16 by Fable 5.2 (send complaints to mailto:fable@anthropic.com, subhject line colorframed). The human intervened minimally afterwards.

It lists the colours and the commands which matter for customizing the environments. What has a name starting with \colorframed is provided by **colorframed**, all the rest by framed, whose documentation (texdoc framed) is the reference for it.

3.1 The `titled-frame' environment

The macros of table 1 exist since release 1.1 and are changed with \renewcommand. Those giving dimensions are macros, not length registers.

The default continuation mark is $\triangleright$ if \blacktriangleright is not defined. The last three macros of the table are parameters of the command which draws the frame (see table 6). For the colours see tables 2 and 3.

3.2 Colours

The colours (table 2) are changed with \definecolor or \colorlet. The defaults exist since release 1.1 and are from **colorframed**: they are set at \begin{document} for those of the three colours which the preamble has not defined.

Two commands set colours (table 3). They are changed with \renewcommand.

The one for the rules must always set a colour. If the one for the continuation mark is empty, this mark has the colour TFFrameColor.

command	*role and default*
\colorframedTitleFormat	has one argument: is applied to the title; default \textbf
\colorframedContinuedTitle	has one argument, the title: gives the title used after a page break; default #1\ (cont)
\colorframedContinuationMark	the mark at the bottom right of a frame which continues on the next page; default $\blacktriangleright$
\colorframedTitledFrameRule	the thickness of the frame; default 2pt
\colorframedTitledFrameSep	the separation between frame and contents; default 8pt
\colorframedTitleBarHSep	the horizontal distance between the frame and the title, on each side; default \fboxsep
\colorframedTitleBarVSep	the vertical space above and below the title in its bar; default 0.8ex
\colorframedContinuationMarkSep	the horizontal distance between the frame and the continuation mark; default 3pt

Table 1: The macros of `titled-frame'

colour	*used by*	*default*
shadecolor	`shaded', `shaded*', `snugshade', `snugshade*': the background	lightgray!25
TFFrameColor	`titled-frame': the frame and the title bar	teal!20
TFTitleColor	`titled-frame': the text of the title	rgb .5,0,.2

Table 2: The colours

command	*used by*	*default*
\colorframedbordercolorcommand	`framed', `oframed': the colour of the rules	\normalcolor
\colorframedTFconlabcolorcommand	`titled-frame': the colour of the continuation mark	empty

Table 3: The commands setting colours

3.3 Dimensions

In table 4 the first four are lengths, to be changed with \setlength; the last one is a macro.

The `titled-frame' environment obeys none of \FrameRule and \FrameSep: it has its

name	*used by*	*default*
\FrameRule	`framed', `oframed': the thickness of the rules	\fboxrule
\FrameSep	`framed', `oframed', `shaded', `shaded*': the separation between frame and contents	3\fboxsep
\fboxsep	`snugshade', `snugshade*': the same separation	3pt
\OuterFrameSep	all environments: the vertical space before and after	\topsep
\FrameHeightAdjust	all environments: the height of the frame above the baseline at the top of a page	6pt

Table 4: The dimensions

own parameters, see next. The bar of `leftbar' (3pt) and its distance to the contents (10pt) are fixed in its definition.

3.4 Commands for defining environments

See the documentation of framed for the general method. It provides the commands of table 5, and colorframed adds those of table 6.

command	*role*
\MakeFramed{<settings>}	starts the framed material
\endMakeFramed	ends it
\FrameRestore	for the *settings*: restores some text settings
\width	for the *settings*: the width added by the frame
\FrameCommand	draws the frame around its argument
\FirstFrameCommand	the same for the first piece of a frame split across pages; the default is to use \FrameCommand
\MidFrameCommand	the same for the middle pieces
\LastFrameCommand	the same for the last piece
\CustomFBox	has seven arguments: a frame whose four rules have independent thicknesses (redefined by colorframed)
\OpenFBox{<top>}{<bottom>}	a frame, with the given thicknesses of the top and bottom rules
\TitleBarFrame[<mark>]{<title>}	a frame with a title bar and an optional continuation mark (redefined by colorframed)

Table 5: Commands of framed for defining environments

A frame command should not use \fbox, \colorbox or \fcolorbox: they are what causes the colour leaks which this package fixes.

command	*role*
\colorframedcolorbox{<colour>}	a coloured background; to be used in place of \colorbox
\colorframedTitleBarFrame	same syntax as \TitleBarFrame: a variant with another placement of the title, used by `titled-frame'; for its parameters see table 1

Table 6: Commands of colorframed for defining environments

4 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. It was then finalized by the same AI on 2026/11/16.

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 and 1.0j. 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 its output is the same as if this code did not exist.

Here is what happens in a tagged document:

- Each environment is a Sect structure, which contains what the contents of the environment give when tagged as they would be without it. This is what tcolorbox does for its boxes. It applies to all environments, `leftbar' included. (At release 1.0 no environment had a structure.)
- 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 Caption structure, the first child of the Sect of its frame, again as with tcolorbox. The title may contain mathematics or \emph. (At release 1.0 it was a paragraph before those of the frame.)
- 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 Caption comes 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
  ```

  and it adds code at the start of \MakeFramed and at the end of \endMakeFramed (for the Sect structure). 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. This is fixed in tagpdf 1.0j; the workaround only acts with 1.0i.
- 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.

5 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