

The tutodoc class

Tutorial-style documentation

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The `tutodoc` class¹ is used by its author to semantically produce documentation of L^AT_EX packages and classes in a tutorial style² using a sober rendering for reading on screen.

Remark : this documentation is also available in French.

Last changes

Break.

- Format: the `scrartcl` class replaces the venerable `article`. This implies better placement of the margin notes with the options retained for loading `scrartcl`.
- L^AT_EX code: the macro `\tdocinlatex` has been renamed `\tdoclatexin`.
- Color key names will be hyphenated where necessary: this implies the following changes.
 1. Admonitions: the `colchges` option of the environments has been renamed `col-chges`.
 2. Showcases: for the environment `tdocshowcase` and the macro `\tdocshowcaseinput`, the `colstripe` and `coltext` options have been renamed `col-stripe` and `col-text`.

Fix.

- Admonitions: for the `\newkeytheorem` used with the `draft` theme, `postheadhook = \leavevmode` has been added (this is necessary because the content can naturally be of the list type).

New.

- Documentation: addition of a section listing dependencies.
- Class options.
 1. Options not specific to `tutodoc` are passed on to the class in charge of general formatting.
 2. The `scrartcl` options `fontsize` and `DIV` can't be used because their values are fixed by `tutodoc`.
- The macro `\tdocinEN` respects the English linguistic rules.
- Admonitions.
 1. A new environment `\begin{tdoctodo}... \end{tdoctodo}` has been added.
 2. Each environment has a new option `col` for the color of the content indicating changes.

Update.

- `draft` theme and changes: the environments for the kind of changes stop to use icons.
- Documentation: the theme gallery uses a better fake example.

Technical information.

- Simplified organisation of configuration files in the final project.
 1. CSS-like: use of one file per theme with a name like `tutodoc-bw.css.cls`.
 2. Locale: use of names like `tutodoc-en.loc.cls`.

¹The name comes from “*tuto-rial-type doc-umentation*”.

²The idea is to produce an efficient PDF file that can be browsed for one-off needs. This is generally what is expected of coding documentation.

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I. Dependencies

tutodoc admits the following dependencies (the dates in brackets are those of the versions used during the latest tests).

- `scartcl.cls` (2024/10/24)
- `csquotes.sty` (2024/04/04)
- `geometry.sty` (2020/01/02)
- `inputenc.sty` (2024/02/08)
- `marginnote.sty` (2018/08/09)
- `tcolorbox.sty` (2024/10/22)
- `clstrip.sty` (2021/08/28)
- `fontawesome5.sty` (2022/05/02)
- `hyperref.sty` (2024/11/05)
- `keytheorems.sty` (2024/11/11)
- `minted.sty` (2024/11/17)

II. General formatting imposed

1. Font size and page geometry

The `scartcl` class is loaded via the `fontsize = 10pt` option, and the `geometry` package manages the page dimensions.

Warning.

The macros for dating and versioning presented in the XI section require fixed settings for page geometry and font size.

2. Titles and table of contents

The selected settings are directly visible in this documentation.

3. Dynamic links

The `hyperref` package is imported, if it hasn't already been, and the settings chosen are just for the colors of links relating to citations, files, internal links, and finally `url` (this color will depend on the theme chosen).

III. What language is used by the tutodoc class?

This documentation loads the `babel` package via `\usepackage[english]{babel}` a package that `tutodoc` does not load. On the other hand, the `tutodoc` class identifies `en` as the main language used by `babel`.³ As this language is included in the list of languages taken into account, see below, the `tutodoc` class will produce the expected effects.

- `en` : English.
- `es` : Spanish.
- `fr` : French.

Note.

Packages `babel` and `polyglossia` are taken into account.

Caution.

If the choice of main language is not made in the preamble, the mechanism used will fail with unintended side effects (see warning that follows).

Warning.

When a language is not supported by `tutodoc`, a warning message is issued, and English is selected as the language for `tutodoc`.

³Technically, we use `\BCPdata{language}` which returns a language in short format.

IV. What does that mean in “English”?

The macro `\tdocinEN` and its starred version are useless for English speakers because they have the following effects.

Cool and top stand for `\tdocinEN*{cool}` and `\tdocinEN{top}`.

Cool and top stand for “cool” and “top” in English.

The macro `\tdocinEN` and its starred version are based on `\tdocquote` : for example, “semantic” is obtained via `\tdocquote{semantic}` .

Note.

As the text “in English” is translated into the language detected by `tutodoc`, the macro `\tdocinEN` and its starred version become useful for non-English speakers.

V. Choose your theme

To modify the general layout, there is the `tutodoc` class option `theme = <choice>` where `<choice>` can take the following values.

- `bw`: a black-and-white theme with some shades of grey.
- `color`: a coloured theme : this is the default value.
- `dark`: a dark theme ideal for resting the eyes.
- `draft`: a theme for a printout such as to look for content errors that aren’t necessarily easy to spot in front of a screen.

Note.

At the end of this document, after the change history, you’ll find a gallery of use cases for these different themes : go to appendix page 23.

VI. Highlighting content

Note.

The environments presented in this section ^a add a short title indicating the type of information provided. This short text will always be translated into the language detected by the `tutodoc` class.

^aThe formatting comes from the `keytheorems` package.

1. Content in the reading flow

Important.

All the environments presented in this section share the same counter, which will be reset to zero as soon as a section with a level at least equal to a `\section` is opened.

i. Examples

Numbered examples, if required, are indicated via `\begin{tdocexa} ... \end{tdocexa}`, which offers an optional argument for adding a mini-title. Here are two possible uses.

```
\begin{tdocexa}
  An example...
\end{tdocexa}
```

Example VI.1. *An example...*

```
\begin{tdocexa}[Mini title]
  Useful?
\end{tdocexa}
```

Example VI.2 (Mini title). *Useful?*

💡 Tip.

It can sometimes be useful to return to the line at the start of the content. The code below shows how to proceed (this trick also applies to the `tdocrem` environment presented next). Note in passing that the numbering follows that of the previous example as desired.

```
\begin{tdocexa}
  \leavevmode
  \begin{enumerate}
    \item Point 1.

    \item Point 2.
  \end{enumerate}
\end{tdocexa}
```

Example VI.3.

1. *Point 1.*
2. *Point 2.*

ii. Some remarks

Everything happens via `\begin{tdocrem} ... \end{tdocrem}`, which works identically to the `tdocexa` environment, as shown in the following example.

```
\begin{tdocrem}
  Just one remark...
\end{tdocrem}
```

Remark VI.4. *Just one remark...*

```
\begin{tdocrem}
  Another?
\end{tdocrem}
```

Remark VI.5. *Another?*


```
\begin{tdocrem}[Mini title]
  Useful?
\end{tdocrem}
```

Remark VI.6 (Mini title). *Useful?*

2. Flashy content

📄 Note.

The formatting proposed here is the default one, but others are possible by changing the theme: see the gallery of use cases in the appendix page 23. As for the icons, they are obtained via the `fontawesome5` package, and the `\tdocicon` macro manages the spacing in relation to the text.^a

^aFor example, `\fbox{\tdocicon{faBed}{Fatigued}}` produces  Fatigued.

i. A tip

The `tdoctr` environment is used to give tips. Here's how to use it.

<pre>\begin{tdoctip} A tip. \end{tdoctip} \begin{tdoctip}[Mini title] Useful? \end{tdoctip}</pre>	<div style="background-color: #c8e6c9; padding: 5px; border: 1px solid #ccc;">💡 Tip.</div> <div style="background-color: #e8f5e9; padding: 5px; border: 1px solid #ccc;"><i>A tip.</i></div> <div style="background-color: #c8e6c9; padding: 5px; border: 1px solid #ccc;">💡 Tip (Mini title).</div> <div style="background-color: #e8f5e9; padding: 5px; border: 1px solid #ccc;"><i>Useful?</i></div>
--	---

💡 Tip.	
<i>Sometimes, highlighted content can be reduced to a list. In this case, the formatting can be improved as follows where we use the wide option from the <code>enumitem</code> package.</i>	
<pre>\begin{tdoctip}[Little elegant] \begin{enumerate} \item Point 1. \item Point 2. \end{enumerate} \end{tdoctip} VERSUS. \begin{tdoctip}[More elegant] \begin{enumerate}[wide] \item Point 1. \item Point 2. \end{enumerate} \end{tdoctip}</pre>	<div style="background-color: #c8e6c9; padding: 5px; border: 1px solid #ccc;">💡 Tip (Little elegant).</div> <div style="background-color: #e8f5e9; padding: 5px; border: 1px solid #ccc;"> <ol style="list-style-type: none"> 1. Point 1. 2. Point 2. </div> <p>VERSUS.</p> <div style="background-color: #c8e6c9; padding: 5px; border: 1px solid #ccc;">💡 Tip (More elegant).</div> <div style="background-color: #e8f5e9; padding: 5px; border: 1px solid #ccc;"> <ol style="list-style-type: none"> 1. Point 1. 2. Point 2. </div>

ii. Informative note

The `tdocnote` environment is used to highlight useful information. Here's how to use it.

<pre>\begin{tdocnote} Something useful to tell you... \end{tdocnote} \begin{tdocnote}[Mini title] Useful? \end{tdocnote}</pre>	<div style="background-color: #bbdefb; padding: 5px; border: 1px solid #ccc;">📄 Note.</div> <div style="background-color: #e3f2fd; padding: 5px; border: 1px solid #ccc;"><i>Something useful to tell you...</i></div> <div style="background-color: #bbdefb; padding: 5px; border: 1px solid #ccc;">📄 Note (Mini title).</div> <div style="background-color: #e3f2fd; padding: 5px; border: 1px solid #ccc;"><i>Useful?</i></div>
---	--



iii. Something important

The `tdocimp` environment is used to indicate something important but harmless.

<pre>\begin{tdocimp} Important and harmless. \end{tdocimp} \begin{tdocimp}[Mini title] Useful? \end{tdocimp}</pre>	<div style="background-color: #ffe0b2; padding: 5px; border: 1px solid #ccc;">📌 Important.</div> <div style="background-color: #ffe5cc; padding: 5px; border: 1px solid #ccc;"><i>Important and harmless.</i></div> <div style="background-color: #ffe0b2; padding: 5px; border: 1px solid #ccc;">📌 Important (Mini title).</div> <div style="background-color: #ffe5cc; padding: 5px; border: 1px solid #ccc;"><i>Useful?</i></div>
---	--



iv. Caution about a delicate point

The `tdoccaut` environment is used to indicate a delicate point to the user. Here's how to use it.

<pre>\begin{tdoccaut} Caution, caution... \end{tdoccaut} \begin{tdoccaut}[Mini title] Useful? \end{tdoccaut}</pre>	<div style="background-color: #d8bfd8; padding: 5px; border: 1px solid #000; margin-bottom: 5px;">  Caution. </div> <div style="background-color: #e6e6fa; padding: 5px; border: 1px solid #000; margin-bottom: 5px;"> <i>Caution, caution...</i> </div> <div style="background-color: #d8bfd8; padding: 5px; border: 1px solid #000; margin-bottom: 5px;">  Caution (Mini title). </div> <div style="background-color: #e6e6fa; padding: 5px; border: 1px solid #000;"> <i>Useful?</i> </div>
---	--

v. Warning of danger

The `tdocwarn` environment is used to warn the user of a trap to avoid. Here's how to use it.


<pre>\begin{tdocwarn} Avoid the dangers... \end{tdocwarn} \begin{tdocwarn}[Mini title] Useful? \end{tdocwarn}</pre>	<div style="background-color: #f08080; padding: 5px; border: 1px solid #000; margin-bottom: 5px;">  Warning. </div> <div style="background-color: #ffe4e4; padding: 5px; border: 1px solid #000; margin-bottom: 5px;"> <i>Avoid the dangers...</i> </div> <div style="background-color: #f08080; padding: 5px; border: 1px solid #000; margin-bottom: 5px;">  Warning (Mini title). </div> <div style="background-color: #ffe4e4; padding: 5px; border: 1px solid #000;"> <i>Useful?</i> </div>
--	---

VII. Specify packages, classes, macros or environments

Here's what you can type semantically.

<pre>\tdoccls{myclass} is for... \\ \tdocpack{mypackage} is for... \\ \tdocmacro{onemacro} is for... \\ \tdocenv{env} produces... \\ \tdocenv[<i>[opt1]<opt2></i>]{env} \\ Just \tdocenv*{env}... \\ Finally \tdocenv*<i>[<i>[opt1]<opt2></i>]{env}</i>... % For copy and paste.</pre>	<pre>myclass is for... mypackage is for... \onemacro is for... \begin{env} ... \end{env} produces... \begin{env}[opt1]<opt2> ... \end{env} Just env... Finally env...</pre>
--	---

Remark VII.1. Unlike `\tdoclatexin`, `\tdocenv` and `\tdocenv*` macros don't color the text they produce. In addition, `\tdocenv{monenv}` produces `\begin{monenv} ... \end{monenv}` with spaces to allow line breaks if required.

 **Warning.**

The optional argument of the `\tdocenv` macro is copied and pasted ^a when rendering. This may sometimes require the use of protective braces, as in the example above.

^aRemember that almost anything is possible from now on.

VIII. Origin of a prefix or suffix

To explain the names chosen, there is nothing like indicating and explaining the short prefixes and suffixes used. This is easily done as follows.

<pre>\tdocpre{sup} relates to... \\ \tdocprewhy{sup.erbe} means... \\ \emph{\tdocprewhy{sup.er} for...}</pre>	<pre>sup relates to... sup·erbe means... <i>sup·er</i> for...</pre>
---	---

Remark VIII.1. The choice of a full stop to split a word allows words with a hyphen to be used, as in `\tdocprewhy{bric.k-breaker}` which gives *bric·k-breaker*.

IX. A real-life rendering

It is sometimes useful to render code directly in the documentation. This type of rendering must be dissociable from the explanatory text.

1. With a colored stripe

Example IX.1 (With default text). *It can be useful to show a real rendering directly in a document.*⁴ This is done via `\begin{tdocshowcase}... \end{tdocshowcase}` as follows.

```
\begin{tdocshowcase}
  \bfseries A bit of code \LaTeX.

  \bigskip

  \emph{\large End of the awful demo.}
\end{tdocshowcase}
```

The result is the following rendering.⁵

————— *Start of the real output* —————

A bit of code **LaTeX**.

End of the awful demo.

————— *End of the real output* —————

Remark IX.2. See the section 4 on page 12 to easily obtain code followed by its actual rendering as in the previous example.

i Note.

The explanatory texts adapt to the language detected by `tutodoc`.

Example IX.3 (Change the colors and/or the texts).

```
\begin{tdocshowcase}[before      = My beginning,
                      after       = My end,
                      col-stripe   = red,
                      col-text    = orange!75!black]
  Bla, bla, bla, bla, bla, bla, bla, bla, bla, bla, bla, bla...
\end{tdocshowcase}
```

This will produce the following.

————— *My beginning* —————

Bla, bla, bla, bla, bla, bla, bla, bla, bla, bla, bla, bla...

————— *My end* —————

i Note.

In the previous example, the text uses the proposed darkened orange. On the other hand, red is used as a base to obtain the colors used for the strip: the transformations used depend on the theme chosen.^a You should also be aware that behind the scenes, the macro `\tdocruler` is used.

```
\tdocruler[red]{A decorated pseudo-title}
```

————— *A decorated pseudo-title* —————

⁴Typically when making a demo.

⁵Behind the scenes, the strip is created effortlessly using the `clrstrip` package.

^aFor example, the themes `bw` and `draft` ignore the key `col-stripe`!

⚠ Warning.

With the default settings, if the code to be formatted begins with an opening bracket, use `\string` as in the following example.

```
\begin{tdocshowcase}
  \string[This works...]
\end{tdocshowcase}
```

This will produce the following.

————— Start of the real output —————
[This works...]
————— End of the real output —————

2. Without a coloured strip

The rendering of `\begin{tdocshowcase} ... \end{tdocshowcase}` with a coloured strip may not be suitable, or sometimes may not be acceptable despite the work done by `clrstrip`. It is possible not to use a coloured strip, as we will see straight away.

Example IX.4. The use of `\begin{tdocshowcase}[nostripe] ... \end{tdocshowcase}` indicate to not use `clrstrip`. Here is an example.

```
\begin{tdocshowcase}[nostripe]
  Bla, bla, bla, bla, bla, bla, bla, bla, bla, bla, bla, bla, bla...
\end{tdocshowcase}
```

This will produce the following.

————— Start of the real output —————
Bla, bla, bla, bla, bla, bla, bla, bla, bla, bla, bla, bla...
————— End of the real output —————

Example IX.5 (Change the colors and/or the texts).

```
\begin{tdocshowcase}[nostripe,
  before = My beginning,
  after   = My end,
  col-stripe = green,
  col-text  = purple]
  Bla, bla, bla, bla, bla, bla, bla, bla, bla, bla, bla, bla, bla...
\end{tdocshowcase}
```

This will produce the following horror.

————— My beginning —————
Bla, bla, bla, bla, bla, bla, bla, bla, bla, bla, bla, bla...
————— My end —————

3. By importing the \LaTeX code

To obtain renderings by importing the code from an external file, simply use the `\tdocshowcaseinput` macro whose option uses the syntax of that of `\begin{tdocshowcase} ... \end{tdocshowcase}` and the mandatory argument corresponds to the path of the file.

Example IX.6. The following was obtained via `\tdocshowcaseinput{external.tex}`.

Start of the real output

Blablobli, blablobli, blablobli, blablobli, blablobli, blablobli...

End of the real output

As for `\tdocshowcaseinput[col-stripe = red, col-text = orange!75!black]{external.tex}`, this will produce the color change shown below.

Start of the real output

Blablobli, blablobli, blablobli, blablobli, blablobli, blablobli...

End of the real output

X. Use cases in L^AT_EX

Documenting a package or class is best done through use cases showing both the code and the corresponding result.⁶

1. “Inline” codes

The `\tdoclatexin` macro⁷ can be used to type inline code in a similar way to `\verb` or like a standard macro (see brace management in the last case below). Here are some examples.

1: <code>\tdoclatexin \$a^b = c\$ </code>	<code>\\</code>	1: <code>\$a^b = c\$</code>
2: <code>\tdoclatexin+\tdoclatexin \$a^b = c\$ +</code>	<code>\\</code>	2: <code>\tdoclatexin \$a^b = c\$ </code>
3: <code>\tdoclatexin{\tdoclatexin \$a^b = c\$ }</code>		3: <code>\tdoclatexin{ \$a^b = c\$ }</code>

Note.

The `\tdoclatexin` macro can be used in a footnote: see below.^a In addition, a background color is deliberately used to subtly highlight the codes `\LaTeX`.

^a`$minted = TOP$` has been typed `\tdoclatexin+$minted = TOP$+` in this footnote...

2. Directly typed codes

Example X.1 (Side by side). Using `\begin{tdoclatex}[sbs] ... \end{tdoclatex}`, we can display a code and its rendering side by side. Consider the following code.

```
\begin{tdoclatex}[sbs]
  $A = B + C$
\end{tdoclatex}
```

This will produce the following.

<code>\$A = B + C\$</code>	$A = B + C$
----------------------------	-------------

Example X.2 (Following). `\begin{tdoclatex} ... \end{tdoclatex}` produces the following result, which corresponds to the default option `std`.⁸

<code>\$A = B + C\$</code>
<hr style="border-top: 1px dashed #000;"/>
$A = B + C$

Example X.3 (Just the code). Via `\begin{tdoclatex}[code] ... \end{tdoclatex}`, we’ll just get the code as shown below.

⁶Code is formatted using the `minted` package.

⁷The name of the macro `\tdoclatexin` comes from “*in-line* L^AT_EX”.

⁸`std` refers to the “*standard*” behaviour of `tcolorbox` in relation to the `minted` library.

```
 $A = B + C$ 
```

Warning.

With default formatting, if the code begins with an opening bracket, the default option must be explicitly indicated. Consider the following code.

```
\begin{tdoclatex}[std]
  [Strange... Or not!]
\end{tdoclatex}
```

This will produce the following.

```
[Strange... Or not!]
```

```
[Strange... Or not!]
```

Another method is to use the `\string` primitive. Consider the following code.

```
\begin{tdoclatex}
  \string[Strange... Or not!]
\end{tdoclatex}
```

This will produce the following.

```
[Strange... Or not!]
```

```
[Strange... Or not!]
```

3. Imported codes

For the following codes, consider a file with the relative path `examples-listing-xyz.tex`, and with the following contents.

```
% Just one demo.
 $x y z = 1$ 
```

The `\tdoclatexinput` macro, shown below, expects the path of a file and offers the same options as the `tdoclatex` environment.

Example X.4 (Side by side).

```
\tdoclatexinput[sbs]{examples-listing-xyz.tex}
```

This produces the following layout.

<pre><code>% Just one demo. $x y z = 1$</code></pre>	<pre>$xyz = 1$</pre>
---	---------------------------------

Example X.5 (Following).

```
\tdoclatexinput{examples-listing-xyz.tex}
```

This produces the following formatting where the default option is `std`.

```
% Just one demo.
 $x y z = 1$ 
```

```
xyz = 1
```

Example X.6 (Just the code).

```
\tdoclatexinput[code]{examples-listing-xyz.tex}
```

This produces the following layout.

```
% Just one demo.  
$x y z = 1$
```

4. Imported codes put into practice

Example X.7 (Showcase). The following comes from `\tdoclatexshow{examples-listing-xyz.tex}`.

Start of the rendering in this doc.

```
% Just one demo.  
$x y z = 1$
```

This gives :

Start of the real output

```
xyz = 1
```

End of the real output

End of rendering in this doc.

Note.

The default texts take into account the language detected by `tutodoc`.

Example X.8 (Changing the explanatory text). Using the key `explain`, you can use custom text. Thus, `\tdoclatexshow[explain = Here is the rendering.]{examples-listing-xyz.tex}` will give the following.

Start of the rendering in this doc.

```
% Just one demo.  
$x y z = 1$
```

Here is the rendering.

Start of the real output

```
xyz = 1
```

End of the real output

End of rendering in this doc.

Example X.9 (The options available). In addition to the explanatory text, it is also possible to use all the options of `\tdocshowcase` environment, see IX page 8. Here is an example to illustrate this.

```
\tdoclatexshow[explain = What comes next is colorful...,  
before = Rendering below.,  
after = Finished rendering.,  
col-stripe = orange,  
col-text = blue!70!black]  
{examples-listing-xyz.tex}
```

This will produce the following.

Start of the rendering in this doc.

```
% Just one demo.
$x y z = 1$
```

What comes next is colorful...

Rendering below.

xyz = 1

Finished rendering.

End of rendering in this doc.

XI. Indicate changes

To make it easier to monitor a project, it is essential to provide a history indicating the changes made when a new version is published.

1. When?

You can either date something, or version it, in which case the version number can be dated.

Example XI.1 (Dating new products). The `\tdocdate` macro is used to indicate a date in the margin, as in the following example.

```
Bla, bla, bla, bla, bla, bla, bla, bla, bla, bla, bla, bla, bla...

\medskip % CAUTION! This prevents overlapping.

\tdocdate{2023-09-24}
Ble, ble, ble, ble, ble, ble, ble, ble, ble, ble, ble, ble, ble...

\medskip % CAUTION! This prevents overlapping.

\tdocdate[gray]{2020-05-08}
Bli, bli, bli, bli, bli, bli, bli, bli, bli, bli, bli, bli, bli...

Blo, blo, blo, blo, blo, blo, blo, blo, blo, blo, blo, blo, blo...

Blu, blu, blu, blu, blu, blu, blu, blu, blu, blu, blu, blu, blu...
```

This gives :

Start of the real output

Bla, bla, bla, bla, bla, bla, bla, bla, bla, bla, bla, bla, bla...

2023-09-24

Ble, ble, ble, ble, ble, ble, ble, ble, ble, ble, ble, ble, ble...

2020-05-08

Bli, bli, bli, bli, bli, bli, bli, bli, bli, bli, bli, bli, bli...

Blo, blo, blo, blo, blo, blo, blo, blo, blo, blo, blo, blo, blo...

Blu, blu, blu, blu, blu, blu, blu, blu, blu, blu, blu, blu, blu...

End of the real output

Example XI.2 (Versioning new features, possibly with a date). Associating a version number with a new feature is done using the `\tdocversion` macro, with the colour and date being optional arguments.

```
\tdocversion[red]{10.2.0-beta}[2023-12-01]
Bla, bla, bla, bla, bla, bla, bla, bla, bla, bla, bla, bla, bla...

\bigskip % CAUTION! This prevents overlapping.

\tdocversion{10.2.0-alpha}
Ble, ble, ble, ble, ble, ble, ble, ble, ble, ble, ble, ble, ble,
ble, ble, ble, ble, ble, ble, ble, ble, ble, ble, ble, ble, ble,
ble, ble, ble, ble, ble, ble, ble, ble, ble, ble, ble, ble, ble,
ble, ble, ble, ble, ble, ble, ble, ble, ble, ble, ble, ble, ble...
```


 **Caution.**

Only the use of the digital format `YYYY-MM-DD` is verified,^a and this is a choice! Why? Quite simply because dating and versioning explanations should be done semi-automatically to avoid any human bugs.

^aTechnically, checking the validity of a date using \LaTeX 3 presents no difficulty.

2. What's new?

tutodoc offers the macro `\tdocstartproj` and different environments to indicate quickly and clearly what has been done during the changes made, or to come.⁹


 **Note.**

For icons, see the note at the beginning of the section 2 page 5.

i. Sobriety first


Example XI.5 (Just for the very first version).

```
\tdocstartproj{1st version of the project.}
```

 1st version of the project.

Example XI.6 (For new features).


```
\begin{tdocnew}
  \item Info 1...
  \item Info 2...
\end{tdocnew}
```

 **New.**

- Info 1...
- Info 2...

Example XI.7 (For updates).


```
\begin{tdocupdate}
  \item Info 1...
  \item Info 2...
\end{tdocupdate}
```

 **Update.**

- Info 1...
- Info 2...

Example XI.8 (For breaks).


```
\begin{tdocbreak}
  \item Info 1...
  \item Info 2...
\end{tdocbreak}
```

 **Break.**

- Info 1...
- Info 2...

Example XI.9 (For problems).


```
\begin{tdocprob}
  \item Info 1...
  \item Info 2...
\end{tdocprob}
```

 **Problem.**

- Info 1...
- Info 2...

Example XI.10 (For fixes).

```
\begin{tdocfix}
  \item Info 1...
  \item Info 2...
\end{tdocfix}
```


 **Fix.**

- Info 1...
- Info 2...

⁹The user doesn't need all the technical details.


Example XI.11 (Roadmap).

```
\begin{tdoctodo}
  \item Info 1...
  \item Info 2...
\end{tdoctodo}
```

-  **Todo.**
- Info 1...
 - Info 2...


Example XI.12 (Technical information).

```
\begin{tdoctech}
  \item Info 1...
  \item Info 2...
\end{tdoctech}
```

-  **Technical information.**
- Info 1...
 - Info 2...

Example XI.13 (Selectable themes with an icon).

```
\begin{tdoctropic}{To hide}<\faEyeSlash>
% An icon from fontawesome5.
  \item Info 1...
  \item Info 2...
\end{tdoctropic}
```

-  **To hide.**
- Info 1...
 - Info 2...

Example XI.14 (Selectable themes without icons).

```
\begin{tdoctropic}{End of icons}
  \item Info 1...
  \item Info 2...
\end{tdoctropic}
```

- End of icons.**
- Info 1...
 - Info 2...

ii. De la couleur si besoin

iii. Color if necessary

It may be useful to highlight certain changes: this can only be done by modifying the content color.

Example XI.15 (A flashy first version).

```
\tdocstartproj[DarkOrchid]%
  {Brightly colored version 1.}
```

 **Brightly colored version 1.**

Example XI.16 (Outstanding fixes).

```
\begin{tdocfix}[col = CadetBlue]
  \item Info...
\end{tdocfix}
```

-  **Fix.**
- Info...

3. The what and the when

The optional keys `col`, `date` and `version` allow to date and version a change of a particular type. Here are some examples of use.

```
\begin{tdoctech}[date      = 2024-10-29,
                  col-chges = red]
  \item Info...
\end{tdoctech}

\begin{tdocupdate}[version  = 1.2.3,
                  col-chges = ForestGreen,
                  col       = ForestGreen]
  \item Info...
\end{tdocupdate}
```



```

\begin{tdoctropic}{To hide}<\faEyeSlash>%
    [version = 4.5.6,
     date    = 2025-11-30]
    \item Info...
\end{tdoctropic}

```

This gives :

Start of the real output

2024-10-29

🔧 Technical information.

- Info...

1.2.3

🔄 Update.

- Info...

4.5.6

2025-11-30

🔍 To hide.

- Info...

End of the real output

XII. Ornament

Let's finish this documentation with a small formatting tool that is very useful.

Bla, bla, bla...

```
\tdocsep % Practical for demarcation.
```

This works with enumerations.

```
\begin{itemize}
  \item Underline.
\end{itemize}
```

```
\tdocsep % Uniform behaviour.
```

Ble, ble, ble...

Bla, bla, bla...

This works with enumerations.

- Underline.

Ble, ble, ble...

XIII. Contribute

i Note.

You don't need to be a coder to take part in translations, including those that are useful for the running of tutodoc.

1. Complete the translations

i Note.

The author of tutodoc manages the French and English versions of the translations.

⚠ Caution.

Although we're going to explain how to translate the documentation, it doesn't seem relevant to do so, as English should suffice these days.^a

^aThe existence of a French version is simply a consequence of the native language of the author of `tutodoc`.

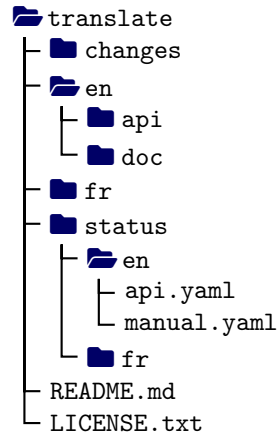


Figure 1: Simplified view of the translation folder

The translations are roughly organized as in figure 1 where only the folders important for the translations have been “opened”.¹⁰ A little further down, the section v explains how to add new translations.

i. The `fr` and `en` folders

These two folders, managed by the author of `tutodoc`, have the same organization; they contain files that are easy to translate even if you're not a coder.

ii. The `changes` folder

This folder is a communication tool where important changes are indicated without dwelling on minor modifications specific to one or more translations.

iii. The `status` folder

This folder is used to keep track of translations from the project's point of view. Everything is done via well-commented YAML files, readable by a non-coder.

iv. The `README.md` and `LICENSE.txt` files

The `LICENSE.txt` file is aptly named, while the `README.md` file takes up in English the important points of what is said in this section about new translations.

v. New translations

✎ Important.

The `api` folder contains translations relating to the functionalities of `tutodoc`. Here you'll find `TXT` files for editing with a text or code editor, but not with a word processor. The content of these files uses commented lines in English to explain what `tutodoc` will do; these lines begin with `//`. Here's an extract from such a file, where translations are made after each `=` sign, without touching the preceding, as this initial piece is used internally by the `tutodoc` code.

```
// #1: year in format YYYY like 2023.
// #2: month in format MM like 04.
// #3: day in format DD like 29.
date = #1-#2-#3
```

¹⁰This was the organization on October 5, 2024, but it's still relevant today.

```
// #1: the idea is to produce one text like
//      "this word means #1 in English".
in_EN = #1 in english
```

Note.

The `doc` folder is reserved for documentation. It contains files of type `TEX` that can be compiled directly for real-time validation of translations.

Warning.

Only start from one of the `fr` and `en` folders, as these are the responsibility of the `tutodoc` author.

Let's say you want to add support for Italian from files written in English.¹¹

Method 1 : git.

1. Obtain the entire project folder via <https://github.com/bc-tools/for-latex/tree/tutodoc>. Do not use the `main` branch, which is used to freeze the latest stable versions of projects in the single <https://github.com/bc-tools/for-latex> repository,.
2. In the `tutodoc/contrib/translate` folder, create a `it` copy of the `en` folder, with the short name of the language documented in the page “*IETF language tag*” from Wikipedia.
3. Once the translation is complete in the `it` folder, you'll need to communicate it via <https://github.com/bc-tools/for-latex/tree/tutodoc> using a classic `git push`.

Method 2 : communicate by e-mail.

1. By e-mail with the subject “*tutodoc - CONTRIB - en FOR italian*”, request a version of the English translations (note the use of the English name for the new language). Be sure to respect the subject of the e-mail, as the author of `tutodoc` automates the pre-processing of this type of e-mail.
2. You will receive a folder named `italian` containing the English version of the latest translations. This folder will be the place for your contribution.
3. Once the translation is complete, you will need to compress your `italian` file in `zip` or `rar` format before sending it by e-mail with the subject “*tutodoc - CONTRIB - italian*”.

2. Improving the source code

Important.

If you want to participate in `tutodoc` you'll need to use the `LATEX3` programming paradigm.

Participation as a coder is made via the <https://github.com/bc-tools/for-latex/tree/tutodoc> repository corresponding to the `tutodoc` development branch.

Caution.

Do not use the `main` branch, which is used to freeze the latest stable versions of projects in the single <https://github.com/bc-tools/for-latex> repository.

XIV. History

Break.

- Format: the `scartcl` class replaces the venerable `article`. This implies better placement of the margin notes with the options retained for loading `scartcl`.

¹¹As mentioned above, there is no real need for the `doc` documentation folder.

- \LaTeX code: the macro `\tdocinlatex` has been renamed `\tdoclatexin`.
- Color key names will be hyphenated where necessary: this implies the following changes.
 1. Admonitions: the `colchges` option of the environments has been renamed `col-chges`.
 2. Showcases: for the environment `tdocshowcase` and the macro `\tdocshowcaseinput`, the `colstripe` and `coltext` options have been renamed `col-stripe` and `col-text`.

Fix.

- Admonitions: for the `\newkeytheorem` used with the `draft` theme, `postheadhook = \leavevmode` has been added (this is necessary because the content can naturally be of the list type).

New.

- Documentation: addition of a section listing dependencies.
- Class options.
 1. Options not specific to `tutodoc` are passed on to the class in charge of general formatting.
 2. The `scrartcl` options `fontsize` and `DIV` can't be used because their values are fixed by `tutodoc`.
- The macro `\tdocinEN` respects the English linguistic rules.
- Admonitions.
 1. A new environment `\begin{tdoctodo}... \end{tdoctodo}` has been added.
 2. Each environment has a new option `col` for the color of the content indicating changes.

Update.

- `draft` theme and changes: the environments for the kind of changes stop to use icons.
- Documentation: the theme gallery uses a better fake example.

Technical information.

- Simplified organisation of configuration files in the final project.
 1. CSS-like: use of one file per theme with a name like `tutodoc-bw.css.cls`.
 2. Locale: use of names like `tutodoc-en.loc.cls`.
-

New.

- The macros `\tdocdate` and `\tdocversion` has a new final optional argument `<voffset>` to choose a specific vertical offset.
- Better environments to indicate the changes made.
 1. The new optional keys `col`, `date` and `version` allow to date and version a change of a specific topic.
 2. Use of `\paragraph` for the title.

Update.

- Version and changes: the font of the margin notes will always have a normal shape.
 - Ornament: use of a `\cleaders` to avoid orphean rules at the bottom of a page.
-

Technical information.

- The naming rules of `CTAN` need the use of CSS files named `tutodoc-*.css.cls.sty`.
-

Break.

- The `showcase` environment and its descendants: the `color` key has been renamed `col-stripe`.
- The macro `\tdoclinkcolor` has been renamed `tutodoc@link@color` for internal use.

New.

- The `theme` class option allows you to choose different formatting themes.
- Change log: addition of the `tdoctech` environment for technical information.
- The `showcase` environment and its descendants: the `col-text` key can also be used to change the text color.
- The new functionalities have been documented.

1.6.2
2024-10-30

1.6.1
2024-10-28

1.6.0
2024-10-27

🔄 Update.

- Change log: the `tdocupdate` environment uses the icon  instead of .

🔧 Fix.

- The Spanish translations were not included in the previous version! Don't laugh too hard...
-

1.5.0
2024-10-19

🔧 Technical information.

- Version 3 of `minted` is taken into account.

🔧 Break.

- The `tutodoc` class replaces the now-defunct `tutodoc` package (for the moment, the young class offers no specific options).
- The `\tdocruler` macro is now used via `\tdocruler[<color>]{<text>}` (remember that the old syntax was `\tdocruler{<text>}{<color>}`).

💎 New.

- The class is usable in Spanish.
- The documentation contains a new section explaining how to contribute.

🔧 Fix.

- The `\tdocdate` macro did not handle date format and formatting.
 - Colored frames did not color text after a page break.
-

1.4.0
2024-09-28

🔧 Break.

- The `tdoccaution` environment has been renamed `tdoccaut` for simplified input.
- Content highlighting: examples and remarks, indicated via the `tdocexa` and `tdocrem` environments, are always numbered using a common counter.
- The unused macro `\tdocxspace` has been deleted.

💎 New.

- Change log: the `\tdocstartproj` macro is used to manage the case of the first public version.
- Code factorization: the `\tdocicon` macro is responsible for adding icons in front of text.

🔄 Update.

- Colors: the `\tdocdarkcolor` and `\tdoclightcolor` macros offer an optional argument.
 1. `\tdocdarkcolor`: the amount of color in relation to black can be optionally defined.
 2. `\tdoclightcolor`: the transparency rate can be optionally defined.
 - Content highlighting: reduced space around content in colored frames.
 - Versioning: better vertical spacing thanks to `\vphantom`.
-

1.3.1
2024-09-26

💎 New.

- Star version of `\tdocenv` to display only the environment name.
-

1.3.0
2024-09-25

🔧 Technical information.

- Version 3 of `minted` cannot be used for the moment as it contains bugs: see <https://github.com/gpoore/minted/issues/401>. We therefore force temporarily the use of version 2 of `minted`.

🔧 Break.

- The `tdocimportant` environment has been renamed `tdocimp` for simplified input.

New.

- Change log: proposed environments use icons.
 - Content highlighting: colored frames with icons are proposed for the following environments.
 1. `tdoccaution`
 2. `tdocimp`
 3. `tdocnote`
 4. `tdoctip`
 5. `tdocwarn`
-

1.2.0-a
2024-08-23

Update.

- `\tdocversion`
 1. The version number is above the date.
 2. The spacing is better managed when the date is absent.

Fix.

- Content highlighting: the French translations of “*caution*” and “*danger*” were incorrect.
-

1.1.0
2024-01-06

New.

- Change log: two new environments.
 1. `\begin{tdocbreak}... \end{tdocbreak}` for breaking changes which are not backward compatible.
 2. `\begin{tdocprob}... \end{tdocprob}` for identified problems.
 - `\tdoclatexin`: a light yellow is used as the background color.
-

1.0.1
2023-12-08

Fix.

- `\tdocenv`: spacing is now correct, even if the `babel` package is not loaded with the French language.
 - `\begin{tdocshowcase}[nostripe]... \end{tdocshowcase}` : page breaks around “*framing*” lines should be rare from now on.
-

1.0.0
2023-11-29

First public version of the project.

Appendix – Theme gallery

 Note.

Each example is exactly a two pages long PDF and has been inserted directly into this document (so don't be surprised by the page numbers).

The theme "bW"

I. Links

A very large link, but at least you can see it.

II. Highlight, version and date

1. tdocexa, tdocrem

In the flow of the text, it is always useful to be able to indicate examples and comments to supplement the main content.

Example II.1. *What to say ¹? I don't know, but it's nice. No ?*

Remark II.2. *What to say ²? I don't know, but it's nice. No ?*

In the flow of the text, it is always useful to be able to indicate examples and comments to supplement the main content.

2. tdocnote, tdoctip...

Depending on the context of use, it is sometimes necessary to be able to highlight content by indicating its degree of importance.

 Note.

What to say ^a? I don't know, but it's nice. No ?

^aLet's not forget the footnotes...

 Tip.

What to say ^a? I don't know, but it's nice. No ?

^aLet's not forget the footnotes...

 Important.

What to say ^a? I don't know, but it's nice. No ?

^aLet's not forget the footnotes...

 Caution.

What to say ^a? I don't know, but it's nice. No ?

^aLet's not forget the footnotes...

 Warning.

What to say ^a? I don't know, but it's nice. No ?

^aLet's not forget the footnotes...

¹Let's not forget the footnotes...

²Let's not forget the footnotes...

3. tdocbreak, tdocfix...

 New demo section...

1.7.0
2024-12-04

In the flow of the text, it is always useful to be able to indicate examples and comments to supplement the main content.

Break.

- Infos...

Fix.

- Infos...

New.

- Infos...

Problem.

- Infos...

Technical information.

- Infos...

Update.

- Infos...

Todo.

- Infos...

III. LaTeX codes

Typing an inline code such as `E = m c^2 \neq \pi \neq \frac{3}{14}` is useful, as is demonstrating use cases such as the following one.

Seeing `\LaTeX\` code formatted is nice: $E = m c^2$ or $\pi \neq \frac{3}{14}$.

Seeing `LATEX` code formatted is nice: $E = mc^2$ or $\pi \neq \frac{3}{14}$.

There's also a less intrusive side-by-side mode. Nice! No ?

Seeing `\LaTeX\` code formatted is nice: $E = m c^2$ or $\pi \neq \frac{3}{14}$.

Seeing `LATEX` code formatted is nice: $E = mc^2$ or $\pi \neq \frac{3}{14}$.

The theme "color"

I. Links

A [very large link](#), but at least you can see it.

II. Highlight, version and date

1. tdocexa, tdocrem

In the flow of the text, it is always useful to be able to indicate examples and comments to supplement the main content.

Example II.1. *What to say ¹? I don't know, but it's nice. No ?*

Remark II.2. *What to say ²? I don't know, but it's nice. No ?*

In the flow of the text, it is always useful to be able to indicate examples and comments to supplement the main content.

2. tdocnote, tdoctip...

Depending on the context of use, it is sometimes necessary to be able to highlight content by indicating its degree of importance.

Note.

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^aLet's not forget the footnotes...

Tip.

What to say ^a? I don't know, but it's nice. No ?

^aLet's not forget the footnotes...

Important.

What to say ^a? I don't know, but it's nice. No ?

^aLet's not forget the footnotes...

Caution.

What to say ^a? I don't know, but it's nice. No ?

^aLet's not forget the footnotes...

Warning.

What to say ^a? I don't know, but it's nice. No ?

^aLet's not forget the footnotes...

¹Let's not forget the footnotes...

²Let's not forget the footnotes...

3. tdocbreak, tdocfix...

 New demo section...

1.7.0
2024-12-04

In the flow of the text, it is always useful to be able to indicate examples and comments to supplement the main content.

Break.

- Infos...

Fix.

- Infos...

New.

- Infos...

Problem.

- Infos...

Technical information.

- Infos...

Update.

- Infos...

Todo.

- Infos...

III. LaTeX codes

Typing an inline code such as `E = m c^2 \neq \pi \neq \frac{3}{14}` is useful, as is demonstrating use cases such as the following one.

Seeing `\LaTeX` code formatted is nice: `$E = m c^2$` or `$$\pi \neq \frac{3}{14}$$`.

Seeing `LATEX` code formatted is nice: $E = mc^2$ or $\pi \neq \frac{3}{14}$.

There's also a less intrusive side-by-side mode. Nice! No ?

Seeing `\LaTeX` code formatted is nice: `\\`
`$E = m c^2$` or `$$\pi \neq \frac{3}{14}$$`.

Seeing `LATEX` code formatted is nice:
 $E = mc^2$ or $\pi \neq \frac{3}{14}$.

The theme "dark"

I. Links

A very large link, but at least you can see it.

II. Highlight, version and date

1. tdocexa, tdocrem

In the flow of the text, it is always useful to be able to indicate examples and comments to supplement the main content.

Example II.1. *What to say ¹? I don't know, but it's nice. No ?*

Remark II.2. *What to say ²? I don't know, but it's nice. No ?*

In the flow of the text, it is always useful to be able to indicate examples and comments to supplement the main content.

2. tdocnote, tdoctip...

Depending on the context of use, it is sometimes necessary to be able to highlight content by indicating its degree of importance.

Note.

What to say ^a? I don't know, but it's nice. No ?

^aLet's not forget the footnotes...

Tip.

What to say ^a? I don't know, but it's nice. No ?

^aLet's not forget the footnotes...

Important.

What to say ^a? I don't know, but it's nice. No ?

^aLet's not forget the footnotes...

Caution.

What to say ^a? I don't know, but it's nice. No ?

^aLet's not forget the footnotes...

Warning.

What to say ^a? I don't know, but it's nice. No ?

^aLet's not forget the footnotes...

¹Let's not forget the footnotes...

²Let's not forget the footnotes...

3. tdocbreak, tdocfix...

 New demo section...

1.7.0
2024-12-04

In the flow of the text, it is always useful to be able to indicate examples and comments to supplement the main content.

Break.

- Infos...

Fix.

- Infos...

New.

- Infos...

Problem.

- Infos...

Technical information.

- Infos...

Update.

- Infos...

Todo.

- Infos...

III. LaTeX codes

Typing an inline code such as `E = m c^2 \neq \pi \neq \frac{3}{14}` is useful, as is demonstrating use cases such as the following one.

Seeing `\LaTeX` code formatted is nice: $E = m c^2$ or $\pi \neq \frac{3}{14}$.

Seeing `LATEX` code formatted is nice: $E = mc^2$ or $\pi \neq \frac{3}{14}$.

There's also a less intrusive side-by-side mode. Nice! No ?

Seeing `\LaTeX` code formatted is nice: $E = m c^2$ or $\pi \neq \frac{3}{14}$.

Seeing `LATEX` code formatted is nice:
 $E = mc^2$ or $\pi \neq \frac{3}{14}$.

The theme "draft"

I. Links

A very large link, but at least you can see it.

II. Highlight, version and date

1. tdocexa, tdocrem

1.7.0
2024-12-04

In the flow of the text, it is always useful to be able to indicate examples and comments to supplement the main content.

Example II.1. *What to say ¹? I don't know, but it's nice. No ?*

Remark II.2. *What to say ²? I don't know, but it's nice. No ?*

1.7.0
2024-12-04

In the flow of the text, it is always useful to be able to indicate examples and comments to supplement the main content.

2. tdocnote, tdoctip...

Depending on the context of use, it is sometimes necessary to be able to highlight content by indicating its degree of importance.

Note II.3. *What to say ³? I don't know, but it's nice. No ?*

Tip II.4. *What to say ⁴? I don't know, but it's nice. No ?*

Important II.5. *What to say ⁵? I don't know, but it's nice. No ?*

Caution II.6. *What to say ⁶? I don't know, but it's nice. No ?*

Warning II.7. *What to say ⁷? I don't know, but it's nice. No ?*

3. tdocbreak, tdocfix...

New demo section...

1.7.0
2024-12-04

In the flow of the text, it is always useful to be able to indicate examples and comments to supplement the main content.

Break.

- Infos...

Fix.

- Infos...

New.

- Infos...

Problem.

- Infos...

Technical information.

- Infos...

¹Let's not forget the footnotes...

²Let's not forget the footnotes...

³Let's not forget the footnotes...

⁴Let's not forget the footnotes...

⁵Let's not forget the footnotes...

⁶Let's not forget the footnotes...

⁷Let's not forget the footnotes...

Update.

- Infos...

Todo.

- Infos...

III. LaTeX codes

Typing an inline code such as `E = m c^2 \neq \pi \neq \frac{3}{14}` is useful, as is demonstrating use cases such as the following one.

Seeing `\LaTeX\` code formatted is nice: $E = m c^2$ or $\pi \neq \frac{3}{14}$.

Seeing `LATEX` code formatted is nice: $E = mc^2$ or $\pi \neq \frac{3}{14}$.

There's also a less intrusive side-by-side mode. Nice! No ?

Seeing `\LaTeX\` code formatted is nice: $E = m c^2$ or $\pi \neq \frac{3}{14}$.

Seeing `LATEX` code formatted is nice: $E = mc^2$ or $\pi \neq \frac{3}{14}$.