zebra — Writing Revision Toolkit*

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Abstract

The zebra package is a writing revision toolkit. The current release focuses on inline note-taking, with a lightweight set of macros designed to be simple and practical for both solo and collaborative workflows. Five built-in commands—`\todo`, `\note`, `\comment`, `\fixed`, and `\placeholder`—cover common use cases out of the box, and `\zebranewnote` lets you define additional note types as needed. Notes are automatically numbered per type, marked with a customisable symbol (default: `\textdbend`) in the nearest margin, and summarised with a summary table plus a detailed note list at the end of the document. Passing the `final` option suppresses all notes for production output.

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*This package was previously distributed as zebra-goodies. The old name still works but will print a deprecation warning. Please update to zebra.

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1 Introduction

zebra is a writing revision toolkit. The current release focuses on inline note-taking. Many note-taking and to-do packages exist for LaTeX, but most fall into one of two traps: they either offer an overwhelming feature set that tries to cover every conceivable use case, or they clutter the margins with oversized colourful boxes and arrows that make the document hard to read.

zebra takes a different approach. It aims to be *simple* —intuitive commands with only the arguments you actually need—and *good enough*—notes appear inline with a small visual cue in the margin, keeping the document readable while still making annotations easy to spot. Each note type is automatically numbered, and a summary table plus a detailed note list at the end of the document serve as a gentle reminder to address them before the final version.

The package requires LaTeX 2022-06-01 or later.

2 Installation

The package is supplied in `dtx` format and as a pre-extracted zip file. The latter is the most convenient option for most users: simply unzip it into your local texmf directory and run `texhash` to update the file-name database, or unzip the files directly into your working directory. To unpack the `dtx` yourself, run `tex zebra.dtx` to extract the package, or `pdflatex zebra.dtx` to extract it and typeset the documentation at the same time.[1]

3 Using the package

Load the package in the preamble with any desired options.

```
\usepackage[<options>]{zebra}  % was zebra-goodies
```

3.1 Package Options

`draft` `final` These two options are complementary. Default: `true` (draft mode). All notes are typeset inline and a summary table plus a detailed note list are appended at the end of the document. Setting `final` (or `draft=false`) suppresses all notes and the generated lists, producing clean output ready for distribution.

`sort` Controls the order of the detailed note list printed at the end of the document. Default: `none` (document order). `sort=type` groups them by note type.

`font-expansion` Controls microtype font expansion, which usually improves the appearance of the document. Disable it if it conflicts with your engine or another package. Default: `true`. microtype remains loaded when expansion is disabled.

`pagelinks` Controls whether page numbers in the detailed note list are clickable. Default: `true`. Set `pagelinks=false` or use the complementary option `nopagelinks` to suppress them.

[1] Running `latexmk zebra.dtx` is even more convenient as it handles multiple compilation passes automatically.

3.2 Notes Macros

All note commands share the syntax `\cmd[⟨name⟩]{⟨text⟩}`. Each also has a prefixed alias (e.g. `\zebratodo`) that is always available, regardless of name conflicts. If a short name clashes with another loaded package, zebra will *not* overwrite the existing definition; use the prefixed form instead.

`\todo`	`\todo[⟨name⟩]{⟨text⟩}`
`\zebratodo`	`\zebratodo[⟨name⟩]{⟨text⟩}`

The primary command provided by zebra is `\todo`. It inserts an inline note in the current paragraph, typeset in a predefined colour and marked with a symbol in the nearest margin. The mandatory ⟨*text*⟩ describes the task; the optional ⟨*name*⟩ specifies who is responsible for addressing it, which is particularly useful during collaborative writing.

```
The motivation section still feels too vague \todo{revise the introduction
before submission} and could benefit from a concrete running example to
guide the reader through the key ideas step by step.
```

The motivation section still feels too vague [TODO 1: revise the introduction before submission] and could benefit from a concrete running example to guide the reader through the key ideas step by step.

The optional argument assigns one or more people to the note. Assignees appear prefixed with `@`, and notes of the same type are numbered sequentially.

```
The related work section needs more references \todo[alice]{add two or
three citations from the latest survey} to recent advances in the field. We
should also double-check the experimental setup before the camera-ready
deadline \todo[bob, carol]{verify the hyperparameter table against the
source code and update any outdated entries and let's check afterwards}.
```

The related work section needs more references [TODO 2@alice: add two or three citations from the latest survey] to recent advances in the field. We should also double-check the experimental setup before the camera-ready deadline [TODO 3@bob, carol: verify the hyperparameter table against the source code and update any outdated entries and let's check afterwards].

Because notes are set as inline text, they work inside moving arguments such as `\section` and `\caption` without issues.

```
\section{Introduction\todo[jerry]{please figure out a better name}}
\begin{figure}
  \centering
  \caption{Speed vs distance. \todo{need to insert the figure}}
\end{figure}
```

`\note`	`\note[⟨name⟩]{⟨text⟩}`
`\zebranote`	`\zebranote[⟨name⟩]{⟨text⟩}`

`\comment`	`\comment[⟨name⟩]{⟨text⟩}`
`\zebracomment`	`\zebracomment[⟨name⟩]{⟨text⟩}`

`\fixed`	`\fixed[`⟨*name*⟩`]{`⟨*text*⟩`}`
`\zebrafixed`	`\zebrafixed[`⟨*name*⟩`]{`⟨*text*⟩`}`

`\placeholder`	`\placeholder[`⟨*name*⟩`]{`⟨*text*⟩`}`
`\zebraplaceholder`	`\zebraplaceholder[`⟨*name*⟩`]{`⟨*text*⟩`}`

These commands share the same syntax and behaviour as `\todo`; they differ only in name and colour, providing semantic distinction for different annotation purposes. Note that `\zebracomment` is used in the example below because `\comment` is already defined by l3doc.

```
We may want to reorganise \note{how should we structure the intro?} this
part before the final submission. The experimental setup in Section~2 has
already been reviewed by a collaborator \zebracomment[tom]{the setup
description looks clear now}. Results are presented in the following tables
and figures, but some of them are still missing.

The discussion has been revised \placeholder[lucy, tom]{good job!}
and the related work comparison strengthened with two additional references.
The list of references still needs a second pass \todo{check bibliography
entries for formatting} before we can finalize the submission.

With those items addressed, the conclusion has been rewritten so the
argument flows more naturally from the results. \fixed[John]{updated the
conclusion} The overall structure now matches the revised outline we agreed
on last week. \note[who]{anything else?} If not, the draft should be fine.
```

1 We may want to reorganise [Note 1: how should we structure the intro?] this part before the final submission. The experimental setup in Section 2 has already been reviewed by a collaborator [Comment 1@tom: the setup description looks clear now]. Results are presented in the following tables and figures, but some of them are still missing.
The discussion has been revised [Placeholder 1@lucy, tom: good job!] and the related work comparison strengthened with two additional references. The list of references still needs a second pass [Todo 4: check bibliography entries for formatting] before we can finalize the submission. With those items addressed, the conclusion has been rewritten so the argument flows more naturally from the results. [Fixed 1@John: updated the conclusion] The overall structure now matches the revised outline we agreed on last week. [Note 2@who: anything else?] If not, the draft should be fine.

`\zebranewnote`	`\zebranewnote{`⟨*note name*⟩`}{`⟨*xcolor name*⟩`}[`⟨*symbol*⟩`]`

Creates a new note type. The ⟨*note name*⟩ becomes the command name (e.g. passing `question` creates `\question` and `\zebraquestion`), and ⟨*xcolor name*⟩ sets its colour. The colour must be a named colour already known to xcolor; define it with `\definecolor` or `\colorlet` beforehand if needed. The optional ⟨*symbol*⟩ overrides the default margin symbol (`\textdbend`) for this note type only. Per-type symbols can also be changed after loading via `\zebrasetup{symbol/`⟨*type*⟩`=`⟨*symbol*⟩`}`.

```
\colorlet{mycyan}{cyan!80!black}
\zebranewnote{question}{mycyan}[\faQuestionCircle] % \usepackage{fontawesome}

When it moves to the next step, we should be fine.\question[who]{what's this?}
```

1 When it moves to the next step, we should be fine.[Question 1@who: what's this?]

`\zebrasetup` `\zebrasetup{⟨key = value list⟩}`

Configures note appearance after loading. Accepted keys:

- `color/⟨type⟩=⟨colour⟩` — override the colour of a note type.
- `symbol/⟨type⟩=⟨symbol⟩` — override the margin symbol of a note type.

For example:

```
\zebrasetup{symbol/fixed=\manerrarrow} % like this doc
\zebrasetup{color/todo=red}
```

3.3 Two-column Support

In `twocolumn` documents, the margin symbol is automatically placed on the nearest margin: left margin for the left column, right margin for the right column. No special configuration is needed. This also works correctly in combination with the `twoside` option.

```
\usepackage[margin=2cm]{geometry}
\usepackage{zebra}
\zebrasetup{symbol/comment=$\clubsuit$}
\usepackage{lipsum}
\pagestyle{empty}
\begin{document}
\section{Demo name\comment{revise the name}}
\lipsum[1][2-] \todo[alice]{revise the introduction}

\lipsum[2] \note[bob]{add a reference here}

\lipsum[3] \fixed[carol]{looks good now}

\lipsum[4] \todo[dave]{needs more data}

\lipsum[5] \placeholder[eve]{insert figure}

\lipsum[6] \note[frank]{check the numbers}

\lipsum[7] \comment[tom]{is it you, jerry?}

\lipsum[8] \fixed[heidi]{typo corrected}

You can place \todo[judy]{summarise the findings} anywhere.
\lipsum[9][10-11]
\end{document}
```

The code above produces the following output:

1♣ 1 Demo name[Comment 1: revise the name]

Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetuer id, vulputate a, magna. Donec vehicula augue eu neque. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Mauris ut leo. Cras viverra metus rhoncus sem. Nulla et lectus vestibulum urna fringilla ultrices. Phasellus eu tellus sit amet tortor gravida placerat. Integer sapien est, iaculis in, pretium quis, viverra ac, nunc. Praesent eget sem vel leo ultrices bibendum. Aenean faucibus. Morbi dolor nulla, malesuada eu, pulvinar at, mollis ac, nulla. Curabitur auctor semper nulla. Donec varius orci eget risus. Duis nibh mi, congue eu, accumsan eleifend, sagittis quis, diam. Duis eget orci sit amet orci dignissim rutrum. 1 [Todo 1@alice: revise the introduction]

Nam dui ligula, fringilla a, euismod sodales, sollicitudin vel, wisi. Morbi auctor lorem non justo. Nam lacus libero, pretium at, lobortis vitae, ultricies et, tellus. Donec aliquet, tortor sed accumsan bibendum, erat ligula aliquet magna, vitae ornare odio metus a mi. Morbi ac orci et nisl hendrerit mollis. Suspendisse ut massa. Cras nec ante. Pellentesque a nulla. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Aliquam tincidunt urna. Nulla ullamcorper vestibulum turpis. Pellentesque cursus luctus 1 mauris. [Note 1@bob: add a reference here]

Nulla malesuada porttitor diam. Donec felis erat, congue non, volutpat at, tincidunt tristique, libero. Vivamus viverra fermentum felis. Donec nonummy pellentesque ante. Phasellus adipiscing semper elit. Proin fermentum massa ac quam. Sed diam turpis, molestie vitae, placerat a, molestie nec, leo. Maecenas lacinia. Nam ipsum ligula, eleifend at, accumsan nec, suscipit a, ipsum. Morbi blandit ligula feugiat magna. Nunc eleifend consequat lorem. Sed lacinia nulla vitae enim. Pellentesque tincidunt purus vel magna. Integer non enim. Praesent euismod nunc eu purus. Donec bibendum quam in tellus. Nullam cursus pulvinar lectus. Donec et mi. Nam vulputate metus eu enim. Vestibulum pel- 1 lentesque felis eu massa. [Fixed 1@carol: looks good now]

Quisque ullamcorper placerat ipsum. Cras nibh. Morbi vel justo vitae lacus tincidunt ultrices. Lorem ipsum dolor sit amet, consectetuer adipiscing elit. In hac habitasse platea dictumst. Integer tempus convallis augue. Etiam facilisis. Nunc elementum fermentum wisi. Aenean placerat. Ut imperdiet, enim sed gravida sollicitudin, felis odio placerat quam, ac pulvinar elit purus eget enim. Nunc vitae tortor. Proin tempus nibh sit amet nisl. Vivamus quis tortor vitae risus porta 2 vehicula. [Todo 2@dave: needs more data]

Fusce mauris. Vestibulum luctus nibh at lectus. Sed bibendum, nulla a faucibus semper, leo velit ultricies tellus, ac venenatis arcu wisi vel nisl. Vestibulum diam. Aliquam pellentesque, augue quis sagittis posuere, turpis lacus congue quam, in hendrerit risus eros eget felis. Maecenas eget erat in sapien mattis porttitor. Vestibulum porttitor. Nulla facilisi. Sed a turpis eu lacus commodo facilisis. Morbi fringilla, wisi in dignissim interdum, justo lectus sagittis dui, et vehicula libero dui cursus dui. Mauris tempor ligula sed lacus. Duis cursus enim ut augue. Cras ac magna. Cras nulla. Nulla egestas. Curabitur a leo. Quisque egestas wisi eget nunc. Nam feugiat lacus vel est. Curabitur consectetuer. [Placeholder 1@eve: insert figure] 1

Suspendisse vel felis. Ut lorem lorem, interdum eu, tincidunt sit amet, laoreet vitae, arcu. Aenean faucibus pede eu ante. Praesent enim elit, rutrum at, molestie non, nonummy vel, nisl. Ut lectus eros, malesuada sit amet, fermentum eu, sodales cursus, magna. Donec eu purus. Quisque vehicula, urna sed ultricies auctor, pede lorem egestas dui, et convallis elit erat sed nulla. Donec luctus. Curabitur et nunc. Aliquam dolor odio, commodo pretium, ultricies non, pharetra in, velit. Integer arcu est, nonummy in, fermentum faucibus, egestas vel, odio. [Note 2@frank: check the numbers] 2

Sed commodo posuere pede. Mauris ut est. Ut quis purus. Sed ac odio. Sed vehicula hendrerit sem. Duis non odio. Morbi ut dui. Sed accumsan risus eget odio. In hac habitasse platea dictumst. Pellentesque non elit. Fusce sed justo eu urna porta tincidunt. Mauris felis odio, sollicitudin sed, volutpat a, ornare ac, erat. Morbi quis dolor. Donec pellentesque, erat ac sagittis semper, nunc dui lobortis purus, quis congue purus metus ultricies tellus. Proin et quam. Class aptent taciti sociosqu ad litora torquent per conubia nostra, per inceptos hymenaeos. Praesent sapien turpis, fermentum vel, eleifend faucibus, vehicula eu, lacus. [Comment 2@tom: is ♣2 it you, jerry?]

Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Donec odio elit, dictum in, hendrerit sit amet, egestas sed, leo. Praesent feugiat sapien aliquet odio. Integer vitae justo. Aliquam vestibulum fringilla lorem. Sed neque lectus, consectetuer at, consectetuer sed, eleifend ac, lectus. Nulla facilisi. Pellentesque eget lectus. Proin eu metus. Sed porttitor. In hac habitasse platea dictumst. Suspendisse eu lectus. Ut mi mi, lacinia sit amet, placerat et, mollis vitae, dui. Sed ante tellus, tristique ut, iaculis eu, malesuada ac, dui. Mauris nibh leo, facilisis non, adipiscing quis, ultrices a, dui. [Fixed 2@heidi: typo 2 corrected]

You can place [Todo 3@judy: summarise the findings] 3 anywhere. Curabitur tristique arcu eu metus. Vestibulum lectus.

Zebra Notes

Type	Number
todo	3
fixed	2
comment	2
note	2
placeholder	1
Total	**10**

4 Implementation

⟨*package⟩

⟨@@=zebra⟩

Version data to start with.

```
\ProvidesExplPackage{zebra}
  {2026/03/25}
  {1.3.0}
  {Writing Revision Toolkit}
```

4.1 Package options

Package options `draft`, `font-expansion`, `pagelinks`, and `sort` are created using the kernel key–value interface available since LaTeX 2022-06-01. Post-load configuration (`\zebrasetup`) uses a separate `zebra-setup` key family with `color/`⟨*type*⟩ and `symbol/`⟨*type*⟩ sub-families.

```
\bool_new:N \l__zebra_draft_bool
\bool_new:N \l__zebra_microtype_expansion_bool
\bool_new:N \l__zebra_pagelinks_bool
\bool_new:N \l__zebra_sort_none_bool
\seq_new:N \g__zebra_note_types_seq
\prop_new:N \g__zebra_note_colors_prop
\prop_new:N \g__zebra_note_public_alias_prop
\int_new:N \g__zebra_note_id_int
\tl_new:N \l__zebra_note_target_tl
\tl_new:N \l__zebra_note_color_tl
\tl_new:N \l__zebra_summary_rows_tl
\int_new:N \l__zebra_total_notes_int
\prop_new:N \g__zebra_note_symbols_prop
\tl_new:N \l__zebra_symbol_tl
\tl_set:Nn \l__zebra_symbol_tl { \textdbend }

\msg_new:nnn { zebra } { command-taken }
  {
    The~command~'\iow_char:N\\#1'~is~already~defined.~
    Use~'\iow_char:N\\zebra#1'~instead.
  }

\prg_new_conditional:Npnn \__zebra_if_package_loaded:n #1 { T , F , TF }
  {
    \cs_if_exist:cTF { ver@#1.sty }
      { \prg_return_true: }
      { \prg_return_false: }
  }

\keys_define:nn { zebra }
  {
    draft .bool_set:N = \l__zebra_draft_bool,
    draft .initial:n = true,
    final .meta:n = { draft = false },
    font-expansion .bool_set:N = \l__zebra_microtype_expansion_bool,
    font-expansion .initial:n = true,
    nofont-expansion .meta:n = { font-expansion = false },
    pagelinks .bool_set:N = \l__zebra_pagelinks_bool,
    pagelinks .initial:n = true,
```

```
    nopagelinks .meta:n = { pagelinks = false },
    sort .choice:,
    sort / type .code:n = { \bool_set_false:N \l__zebra_sort_none_bool },
    sort / none .code:n = { \bool_set_true:N \l__zebra_sort_none_bool },
    sort .initial:n = none,
  }
\ProcessKeyOptions [ zebra ]
\keys_define:nn { zebra-setup / color }
  {
    unknown .code:n =
      { \prop_gput:NVn \g__zebra_note_colors_prop \l_keys_key_str {#1} }
  }
\keys_define:nn { zebra-setup / symbol }
  {
    unknown .code:n =
      { \prop_gput:NVn \g__zebra_note_symbols_prop \l_keys_key_str {#1} }
  }
\sys_if_engine_xetex:T
  { \bool_set_false:N \l__zebra_microtype_expansion_bool }

\cs_new_protected:Npn \__zebra_setup_microtype:
  {
    \__zebra_if_package_loaded:nTF { microtype }
      {
        \bool_if:NF \l__zebra_microtype_expansion_bool
          { \microtypesetup { expansion = false } }
      }
      {
        \bool_if:NTF \l__zebra_microtype_expansion_bool
          { \RequirePackage{microtype} }
          { \RequirePackage[expansion=false]{microtype} }
      }
  }
\__zebra_setup_microtype:
\__zebra_if_package_loaded:nF { hyperref }
  {
    \bool_if:NT \l__zebra_pagelinks_bool
      {
        \RequirePackage{hyperref}
        \hypersetup { pdfborder = { 0~0~0 } }
      }
  }
\RequirePackage{xcolor}
\RequirePackage{marginnote}
\cs_if_exist:NTF \dbend
  {
    \cs_set_eq:NN \__zebra_saved_dbend: \dbend
    \cs_undefine:N \dbend
    \RequirePackage{manfnt}
    \cs_set_eq:NN \dbend \__zebra_saved_dbend:
  }
  { \RequirePackage{manfnt} }
\cs_new_protected:Npn \__zebra_pdfstring_note:
  { \@ifnextchar [ { \__zebra_pdfstring_note_opt:w } { \use_none:n } }
```

```
\cs_new_protected:Npn \__zebra_pdfstring_note_opt:w [#1] #2 { }
\cs_new:Npn \__zebra_target:nn #1#2 {#2}
\cs_new:Npn \__zebra_link:nn #1#2 {#2}
\cs_new:Npn \__zebra_pageref:n #1 { \pageref {#1} }
\cs_new_protected:Npn \__zebra_apply_pdfstring_defs:
  {
    \pdfstringdefDisableCommands
      {
        \seq_map_inline:Nn \g__zebra_note_types_seq
          {
            \cs_set_eq:cN { zebra##1 } \__zebra_pdfstring_note:
            \prop_if_in:NnT \g__zebra_note_public_alias_prop { ##1 }
              { \cs_set_eq:cN { ##1 } \__zebra_pdfstring_note: }
          }
      }
  }
\cs_new_protected:Npn \__zebra_setup_pagelinks:
  {
    \cs_set:Npn \__zebra_target:nn ##1##2 {##2}
    \cs_set:Npn \__zebra_link:nn ##1##2 {##2}
    \cs_set:Npn \__zebra_pageref:n ##1 { \pageref {##1} }
    \__zebra_if_package_loaded:nT { hyperref }
      {
        \cs_set:Npn \__zebra_pageref:n ##1 { \pageref* {##1} }
        \bool_if:NT \l__zebra_pagelinks_bool
          {
            \cs_set:Npn \__zebra_target:nn ##1##2 { \hypertarget{##1}{##2} }
            \cs_set:Npn \__zebra_link:nn ##1##2 { \hyperlink{##1}{##2} }
          }
        \__zebra_apply_pdfstring_defs:
      }
  }
\hook_gput_code:nnn { begindocument } { zebra }
  { \__zebra_setup_pagelinks: }
```

4.2 Main notes macros

Various helper macros are defined before reaching out to the `\todo` commands.

Place the margin note on the nearest margin. Takes two arguments: `#1` for the left margin (number then symbol) and `#2` for the right margin (symbol then number), so the symbol always sits closest to the text column. In twocolumn mode, `\marginpar`'s optional argument selects the left-margin variant automatically. In single-column mode, `\marginnote` is used with the right-margin variant as default.

```
\cs_new_protected:Npn \__zebra_margin_note:nn #1#2
  {
    \legacy_if:nTF { @twocolumn }
      {
        \mode_if_inner:TF
          { \marginnote{#2} }
          {
            \marginpar
              [ { \makebox[\marginparwidth]{#1} } ]
              { \makebox[\marginparwidth]{#2} }
```

```
          }
      }
      { \marginnote[#1]{#2} }
  }
\cs_new:Npn \__zebra_prepend:nn #1#2
  { \tl_if_blank:nTF {#2} {} {#1#2} }
\cs_new:Npn \__zebra_capitalize_type:n #1
  { \text_uppercase:n { \tl_head:n {#1} } \tl_tail:n {#1} }
\cs_new:Npn \__zebra_note_count:n #1
  { \int_use:c { g__zebra_note_count_#1_int } }
\cs_new:Npn \__zebra_note_color:n #1
  { \prop_item:Nn \g__zebra_note_colors_prop {#1} }
\cs_new:Npn \__zebra_note_symbol:n #1
  {
    \prop_if_in:NnTF \g__zebra_note_symbols_prop {#1}
      { \prop_item:Nn \g__zebra_note_symbols_prop {#1} }
      { \l__zebra_symbol_tl }
  }
\cs_new_protected:Npn \__zebra_new_listbody:n #1
  { \tl_new:c { g__zebra_listbody_#1_tl } }
\tl_new:N \g__zebra_listbody_all_tl
\cs_new:Npn \__zebra_use_listbody:n #1
  { \tl_use:c { g__zebra_listbody_#1_tl } }
\cs_new_protected:Npn \__zebra_record_note:nnnnn #1#2#3#4#5
  {
    \tl_gput_right:cx
      {
        \bool_if:NTF \l__zebra_sort_none_bool
          { g__zebra_listbody_all_tl }
          { g__zebra_listbody_#1_tl }
      }
      {
        \exp_not:N \__zebra_list_entry:nnnnn
        { \exp_not:n {#1} }
        {#2}
        { \exp_not:n {#3} }
        { \exp_not:n {#4} }
        {#5}
      }
  }
\cs_new_protected:Npn \__zebra_note:nnn #1#2#3
  {
    \bool_if:NT \l__zebra_draft_bool
      {
      \tl_set:Nx \l__zebra_note_color_tl { \__zebra_note_color:n {#1} }
      \int_gincr:c { g__zebra_note_count_#1_int }
      \int_gincr:N \g__zebra_note_id_int
      \tl_set:Nx \l__zebra_note_target_tl
        { zebranote.\int_use:N \g__zebra_note_id_int }
      \__zebra_record_note:nnnnn
        {#1}
        { \__zebra_note_count:n {#1} }
        {#2}
        {#3}
```

```
        { \l__zebra_note_target_tl }
      \__zebra_target:nn { \l__zebra_note_target_tl } {}
      \exp_args:NV \label \l__zebra_note_target_tl
      \__zebra_margin_note:nn
        {\textcolor{\l__zebra_note_color_tl}{%
          {\bfseries\__zebra_note_count:n {#1}}\kern1pt\__zebra_note_symbol:n {#1}}}
        {\textcolor{\l__zebra_note_color_tl}{%
          \__zebra_note_symbol:n {#1}\kern1pt{\bfseries\__zebra_note_count:n {#1}}}}%
      \textcolor{\l__zebra_note_color_tl}{[\colorbox[gray]{0.97}{%
          \textcolor{\l__zebra_note_color_tl !70!black}{%
            \textsc{\MakeLowercase{\MakeUppercase#1}}~%
            \__zebra_note_count:n {#1}\texttt{\__zebra_prepend:nn {@}{#2}}:}} #3]}%
      }
  }
\cs_new_protected:Npn \__zebra_new_note_type:nn #1#2
  { \__zebra_new_note_type:nnn {#1} {#2} {} }
\cs_new_protected:Npn \__zebra_new_note_type:nnn #1#2#3
  {
    \seq_gput_right:Nn \g__zebra_note_types_seq {#1}
    \prop_if_in:NnF \g__zebra_note_colors_prop {#1}
      { \prop_gput:Nnn \g__zebra_note_colors_prop {#1} {#2} }
    \tl_if_blank:nF {#3}
      {
        \prop_if_in:NnF \g__zebra_note_symbols_prop {#1}
          { \prop_gput:Nnn \g__zebra_note_symbols_prop {#1} {#3} }
      }
    \int_new:c { g__zebra_note_count_#1_int }
    \__zebra_new_listbody:n {#1}
    \exp_args:Nc \NewDocumentCommand { zebra#1 } { O{} m }
      { \__zebra_note:nnn {#1}{##1}{##2} }
    \__zebra_if_package_loaded:nT { hyperref }
      { \__zebra_apply_pdfstring_defs: }
    \cs_if_exist:cTF {#1}
      { \msg_warning:nnn { zebra } { command-taken } {#1} }
      {
        \cs_set_eq:cc {#1} {zebra#1}
        \prop_gput:Nnn \g__zebra_note_public_alias_prop {#1} { true }
      }
  }
\cs_new_protected:Npn \__zebra_list_entry:nnnnn #1#2#3#4#5
  {
    \par\noindent
    \textcolor{\__zebra_note_color:n {#1}}{%
      \textbf{\__zebra_capitalize_type:n {#1}~#2}%
      \tl_if_blank:nF {#3} { \enspace \texttt{\__zebra_prepend:nn {@}{#3}} }}%
    \nobreak\dotfill
    \__zebra_link:nn {#5} { \__zebra_pageref:n {#5} }%
    \par
    \begingroup
      \leftskip=2em
      \rightskip=2em
      \parindent=0pt
      #4\par
    \endgroup
```

```
  }
\cs_new_protected:Npn \__zebra_print_note_group:n #1
  {
    \int_compare:nNnT { \__zebra_note_count:n {#1} } > { 0 }
      {
        \par\medskip
        \__zebra_use_listbody:n {#1}
      }
  }
\cs_new_protected:Npn \__zebra_print_notes_inorder:
  {
    \tl_if_empty:NF \g__zebra_listbody_all_tl
      { \par\medskip \tl_use:N \g__zebra_listbody_all_tl }
  }
\cs_new_protected:Npn \__zebra_summary_row:n #1
  {
    \int_compare:nNnT { \__zebra_note_count:n {#1} } > { 0 }
      {
        \int_add:Nn \l__zebra_total_notes_int { \__zebra_note_count:n {#1} }
        \tl_put_right:Nx \l__zebra_summary_rows_tl
          {
            \exp_not:N \textcolor
              { \__zebra_note_color:n {#1} }
              {#1}
            \exp_not:N &
            \__zebra_note_count:n {#1}
            \exp_not:N \\
          }
      }
  }
\cs_new_protected:Npn \__zebra_print_notes:
  {
    \tl_clear:N \l__zebra_summary_rows_tl
    \int_zero:N \l__zebra_total_notes_int
    \seq_map_inline:Nn \g__zebra_note_types_seq
      { \__zebra_summary_row:n {##1} }
    \tl_if_empty:NF \l__zebra_summary_rows_tl
      {
        \par\nobreak
        \noindent\dotfill\par\medskip
        \nobreak
        \noindent\textbf{\Large Zebra~Notes}
        \par \medskip
        \begin{center}
          \begin{tabular}{lr}
            \hline
            \textbf{Type} & \textbf{Number} \\\hline
            \tl_use:N \l__zebra_summary_rows_tl
            \hline
            \textbf{Total} & \textbf{\int_use:N \l__zebra_total_notes_int} \\
            \hline
          \end{tabular}
        \end{center}
        \legacy_if:nTF { @twocolumn }
```

```
        {
          \clearpage
          \onecolumn
        }
        { \par \medskip }
      \begingroup
        \small
        \noindent{\bfseries List~of~notes}\par
        \nobreak
        \bool_if:NTF \l__zebra_sort_none_bool
          { \__zebra_print_notes_inorder: }
          {
            \seq_map_inline:Nn \g__zebra_note_types_seq
              { \__zebra_print_note_group:n {##1} }
          }
      \endgroup
    }
}
```

\zebranewnote All note types are created with \zebranewnote.

```
\NewDocumentCommand \zebranewnote { m m O{} }
  { \__zebra_new_note_type:nnn {#1} {#2} {#3} }
```

(*End of definition for* \zebranewnote. *This function is documented on page* 4.)

\zebrasetup Applies configuration keys after loading using the zebra-setup key family.

```
\NewDocumentCommand \zebrasetup { m }
  { \keys_set:nn { zebra-setup } {#1} }
```

(*End of definition for* \zebrasetup. *This function is documented on page* 5.)

\todo \note \fixed \comment \placeholder Built-in note types, defined with \zebranewnote.

```
\zebranewnote{todo}{purple}
\colorlet{zebra@fixed@color}{green!50!black}
\zebranewnote{fixed}{zebra@fixed@color}
\zebranewnote{comment}{blue}
\zebranewnote{note}{violet}
\zebranewnote{placeholder}{gray}
```

(*End of definition for* \todo *and others. These functions are documented on page* 3.)

4.3 Print summary at end of the document

A summary table and a detailed note list are inserted automatically at the end of the document. Each note type with at least one instance is listed with its colour and count, followed by notes in document order or grouped by type.

```
\hook_gput_code:nnn { enddocument } { zebra }
  {
    \bool_if:NT \l__zebra_draft_bool
      { \__zebra_print_notes: }
  }
\ExplSyntaxOff
```

⟨/package⟩

4.4 Compatibility shim

The old package name zebra-goodies is supported via a thin wrapper that loads zebra and prints a deprecation warning.

```
⟨*compat⟩
\NeedsTeXFormat{LaTeX2e}
\ProvidesPackage{zebra-goodies}
  [2026/03/25 v1.3.0 Deprecated: use zebra instead]
\PackageWarningNoLine{zebra-goodies}
  {Package~'zebra-goodies'~is~deprecated.\MessageBreak
   Use~\string\usepackage{zebra}~instead}
\RequirePackageWithOptions{zebra}
⟨/compat⟩
```

4.5 Two-column demo

A standalone two-column document used to generate the demo figure included in the documentation. It is extracted automatically by docstrip and compiled during the build.

```
⟨*demo-twocol⟩
\documentclass[twocolumn,a4paper]{article}
\usepackage[margin=2cm]{geometry}
\usepackage{zebra}
\zebrasetup{symbol/comment=$\clubsuit$}
\usepackage{lipsum}
\pagestyle{empty}
\begin{document}
\section{Demo name\comment{revise the name}}
\lipsum[1][2-] \todo[alice]{revise the introduction}

\lipsum[2] \note[bob]{add a reference here}

\lipsum[3] \fixed[carol]{looks good now}

\lipsum[4] \todo[dave]{needs more data}

\lipsum[5] \placeholder[eve]{insert figure}

\lipsum[6] \note[frank]{check the numbers}

\lipsum[7] \comment[tom]{is it you, jerry?}

\lipsum[8] \fixed[heidi]{typo corrected}

You can place \todo[judy]{summarise the findings} anywhere.
\lipsum[9][10-11]
\end{document}
⟨/demo-twocol⟩
```

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General: Initial public release 1
v0.2.0
General: Fix xcolor conflict 1
v0.3.0
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v0.9.2
General: Faster. 1
v1.0.0
General: expl3, list of notes and compatibility. 1
v1.1.0
General: Customisable margin symbol, accurate page numbers, code cleanup. 1
v1.1.1
General: Per-type color/symbol keys, \zebrasetup. 1
v1.2.0
General: Simplify key architecture. . . . 1
v1.3.0
General: Rename package to zebra. . . . 1
Rename the microtype expansion option to font-expansion. 1
Rename the page-link option to pagelinks/nopagelinks. 1

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comment	1
note	2
placeholder	1
question	1
Total	**10**

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Todo 2 `@alice` . . . 3
add two or three citations from the latest survey
Todo 3 `@bob, carol` . . . 3
verify the hyperparameter table against the source code and update any outdated entries and let's check afterwards
Note 1 . . . 4
how should we structure the intro?
Comment 1 `@tom` . . . 4
the setup description looks clear now
Placeholder 1 `@lucy, tom` . . . 4
good job!
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check bibliography entries for formatting
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Note 2 `@who` . . . 4
anything else?
Question 1 `@who` . . . 4
what's this?