The changelog Package

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2019/07/06 2.1.0

Abstract

Changelogs are important. Unfortunately, there are few facilities for typesetting changelogs in \LaTeX. changelog defines a changelog environment to make changelogs simple and intuitive.

For rationale, read keepachangelog.com.

NOTE Browse the sources, contribute, or complain at github.com/9999years/latex-changelog

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1 I don’t want to read this documentation

Perfectly understandable. `changelog` comes in a “simple” flavor:

```
\begin{changelog}[author=Rebecca Turner, simple, sectioncmd=\section*]
\begin{version}[v=1.0.0, date=2018-12-28]
\item Cool features
\item Bug fixes
\end{version}
\shortversion{v=0.1.0, date=2018-10-25, changes=Initial beta}
\end{changelog}
```

And a more organized variant based on keepachangelog.com:

```
\begin{changelog}[author=Rebecca Turner, sectioncmd=\section*]
\begin{version}[v=1.0.0, date=2018-12-28]
\added
\item Cool features
\fixed
\item Bug fixes
\end{version}
\shortversion{v=0.1.0, date=2018-10-25, changes=Initial beta}
\end{changelog}
```

2 Intro

2.1 Why?

Read Olivier Lacan’s lovely site keepachangelog.com. To excerpt:

2.1.1 What is a changelog?

A changelog is a file which contains a curated, chronologically ordered list of notable changes for each version of a project.

2.1.2 Why keep a changelog?

To make it easier for users and contributors to see precisely what notable changes have been made between each release (or version) of the project.
### 2.1.3 Who needs a changelog?

People do. Whether consumers or developers, the end users of software are human beings who care about what’s in the software. When the software changes, people want to know why and how.

### 2.2 The competition

It’s always good to know the competition. Unfortunately, there isn’t much here. Know of another package with similar functionality? Drop me a line or open a pull request!

**vhistory** provides a decent-looking changelog. However, it’s designed for short changes and provides a less-than-elegant interface. Additionally, it’s based on the `ltxtable` package, meaning it makes restrictions on the contents of version information and writes the table to a file.

**holtxdoc** has a decent changelog feature (via Oberdiek’s `History` and `Version` environments), but `holtxdoc` “contains some private macros and setup for my needs. Thus do not use it.” In addition, Oberdiek’s changelogs don’t support multiple authors.

**gitlog** is an interesting idea, but **gitlog** “is a proof-of-concept release to allow users an early evaluation...”

Also, friends don’t let friends dump git logs into changelogs.

### 3 The changelog environment

```latex
\begin{changelog}\langle\textit{options}\rangle\ldots\end{changelog}
```

Wraps description while providing the version environment and the \texttt{shortversion} command. In addition to the options shown below, \textit{\langle\textit{options}\rangle} may contain any of the options for \texttt{version} as a form of “partial application”; this may be useful if, for example, most of your versions have the same author.

- **section** \texttt{=\langle\textit{true|false}\rangle}
  
  Insert a \texttt{section} before the changelog?

- **sectioncmd** \texttt{=\langle\textit{command}\rangle}
  
  Which sectioning command to use?

- **title** \texttt{=\langle\textit{txt}\rangle}
  
  What to title the changelog section?

- **label** \texttt{=\langle\textit{label}\rangle}
  
  What to \texttt{\label} the section?

```latex
\begin{version}\langle\textit{options}\rangle\ldots\end{version}
```

Gives a single version; wraps \texttt{itemize}.

- If the \texttt{date} option is absent, the date isn’t printed.
- If the \texttt{v/version} option is absent, the date is used in its place.
If both version and date are absent, the version is shown as Unreleased and \today is used for the date. \today isn’t ideal (which is to say, not ISO 8601 compliant) but it’s well-known and easy to redefine.¹

⟨options⟩ may include:

\textbf{version}=(version string)

The version string for this version

\textbf{v}=(version string)

An alias for version

\textbf{author}=(author(s))

The author(s) of this version

\textbf{date}=(date string)

The date of this version’s release

\textbf{yanked}=(true|false)

false

Indicates that the release was revoked due to a “serious bug or security issue”; prints a visible notice next to the version number

\textbf{simple}=(true|false)

false

Indicates this version isn’t split up into \added, \changed, etc. categories; if this option is given, a \version environment acts like a plain \itemize

\textbf{short}=(true|false)

false

Renders a short version, like \shortversion's changes option; useful if you need to put verbatim material in the changes which would otherwise cause an error due to being used in an argument.

\begin{verbatim}
\shortversion{⟨options⟩}
\end{verbatim}

A short, one-line version. In addition to version's options, the following options are available for \shortversion:

\textbf{changes}=(change text)

The changes to display for this version

### 3.1 Helper commands

The changelog package defines several “helper commands.” These commands introduce a set of changes within the version. There must be at least one \item between one of these commands and the end of the version environment.

Note that these commands are only available when not using the \texttt{simple} option!

\begin{verbatim}
\added
\end{verbatim}

Introduces a list of \items that represent added features

¹Try the datetime2 package or any of the other solutions here.
Introduces a list of items that represent changed features

Introduces a list of items that represent deprecated features

Introduces a list of items that represent features which have been removed

Introduces a list of items that represent bug fixes

Introduces a list of items that represent security-fixes and closed security holes

3.2 Customization

The changelog environment wraps changelogdescription (which is defined by default to be just the description environment), and the version environment wraps changelogitemize. One could customize these in depth with enumitem, as in:

```latex
\usepackage{enumitem}
\renewenvironment{changelogitemize}{\begin{itemize}[label=---]}{\end{itemize}}
```


4 Translations

Want to use changelog in a non-English document? Great! Thanks to a contribution by Holger Schieferdecker (see section 5 below), changelog comes with translations for English, German, and support for adding new translations. To use built-in translations, simply load babel with the desired language:
1.0.0 Holger Schieferdecker

Hinzugefügt
• Features!

4.1 Creating new translations

chalog uses the translations package to provide translations, and a complete translation looks like this:

\documentclass{article}
\usepackage[english]{babel}
\usepackage{translations}
\DeclareTranslation{English}{changelog-Added}{Added}
\DeclareTranslation{English}{changelog-Changed}{Changed}
\DeclareTranslation{English}{changelog-Deprecated}{Deprecated}
\DeclareTranslation{English}{changelog-Removed}{Removed}
\DeclareTranslation{English}{changelog-Fixed}{Fixed}
\DeclareTranslation{English}{changelog-Security}{Security}
\DeclareTranslation{English}{changelog-Miscellaneous}{Miscellaneous}
\DeclareTranslation{English}{changelog-Unreleased}{Unreleased}
\DeclareTranslation{English}{changelog-Yanked}{YANKED}
\begin{document}
% ...
\end{document}

Refer to the translations package documentation and the babel package documentation for more information.

If you create a translation, please send me an email and I’ll incorporate the translation into changelog’s next release!

5 Contributors

Rebecca Turner Original implementation.

Holger Schieferdecker Internationalization support and German translations.

6 Changelog

This is this package’s actual changelog — not an example!

2.1.0 Holger Schieferdecker (2019-06-29)

Added
• Internationalization support.
• German translations.

2.0.0  Rebecca Turner (2019-04-15)

   **Added**
   - Better error handling; more informative messages for empty version or changelog environments.
   - short option in versions.

   **Removed**
   - Removed `color` package option.

   **Fixed**
   - Added dependencies for `xparse` and `xkeyval`, which had erroneously been excluded from the package.

1.0.0  Rebecca Turner (2018-12-28)

   **Added**
   - The “simple” option for changelogs which aren’t split up into sections of added, changed, removed, etc. features

   **Changed**
   - Instead of commands like `\added` introducing an item, they introduce a list of items; this is what `keepachangelog.com` actually intended; previous implementations were incorrect to display an “Added” (or whatever) marker next to each item.

0.2.1  Rebecca Turner (2018-10-26) — Documented yanked option

0.2.0  Rebecca Turner (2018-10-26) — First stable release

0.1.0  Rebecca Turner (2018-10-25) — Initial beta