

The `chgtrk` package*

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Abstract

This package was developed in order to ease the typesetting of changes in \LaTeX . It was developed at the University of Southampton.

Contents

1	Introduction	1
2	Usage	1
2.1	Contributor Declaration	1
2.2	Contributor Commands	2
3	Implementation	3

1 Introduction

This package was developed in order to ease the typesetting of changes in \LaTeX .

2 Usage

Just like any other package, you need to request this package with a `\usepackage` command in the preamble. So in the simpler case, one just types

```
\usepackage{chgtrk}
```

to load the package.

2.1 Contributor Declaration

After package loading, contributors can be declared using the meta-command `\newCTcontributor{<Contributor>}`, which subsequently creates several “personalised” commands for the contributor. For example, the following command

```
\newCTcontributor{Alice}
```

*This document corresponds to `chgtrk` ?, dated ?.

creates the commands `\AliceAdd`, `\AliceChange`, `\AliceDelete`, `\AliceComment`, etc., for adding, changing, deleting texts, and comment accordingly. (More contributor's commands are described in Section 2.2.) The name `Alice` will be used to identify the contributor of various annotations.

If a full name (e.g., with white space) is desirable for contributor's identification, the following form of `\newCTcontributor` should be used.

```
\newCTcontributor{<Contributor>}{<Full Name>}
```

where `Full Name` is the full name used for contributor's identification and `Contributor` is the prefix of the contributor's commands. As an example, the following command

```
\newCTcontributor[Bob]{Bob Smith}
```

creates the commands `\BobAdd`, `\BobChange`, `\BobDelete`, `\BobComment`, etc., while using "Bob Smith" as the contributor's identification.

2.2 Contributor Commands

Adding Texts. A contributor can annotate the newly added text with her own `\<Contributor>Add` command. For example, the following shows the text that Alice adds using `\AliceAdd` command, i.e.,

```
\AliceAdd{This is the text that Alice adds.}
```

produces

Alice added

This is the text that Alice adds.

Similarly, the following

```
\BobAdd{And this is the text that Bob adds.}
```

produces

Bob Smith added

And this is the text that Bob adds.

Notice how "Bob Smith" is used as the contributor's identification.

Changing Texts. A contributor can annotate the changed text with her own `\<Contributor>Change` command. For example, the following shows the text that Alice changes using `\AliceChange` command, i.e.,

```
\AliceChange{This is the old text}{This is the text that Alice changes.}
```

produces

Alice changed

This is the old text This is the text that Alice changes.

Similarly, the following

```
\BobChange{This is the old text}{And this is the text that Bob changes.}
```

produces

Bob Smith changed

This is the old text And this is the text that Bob changes.

Notice how "Bob Smith" is used as the contributor's identification.

Deleting Texts. A contributor can annotate the deleted text with her own `\<Contributor>Delete` command. For example, the following shows the text that Alice deletes using `\AliceDelete` command, i.e.,

```
\AliceDelete{This is the text that Alice deletes.}
```

produces

Alice delete

This is the text that Alice deletes.

Similarly, the following

```
\BobDelete{And this is the text that Bob deletes.}
```

produces

Bob Smith delete

~~And this is the text that Bob deletes.~~

Notice how “Bob Smith” is used as the contributor’s identification.

Comment. A contributor can comment with her own `\<Contributor>Comment` command. For example, the following shows Alice’s comments using `\AliceComment` command, i.e.,

Alice: This is Alice’s comment.

`\AliceComment{This is Alice’s comment.}`

produces the comment on the margin with a link to the place with the command is issued (here after the word “produces”). Similarly, the following

Bob Smith: And this is Bob’s comment.

`\BobComment{And this is Bob’s comment.}`

produces the comment on the margin. Notice how “Bob Smith” is used as the contributor’s identification.

In-line Comment. A contributor can comment in-line with her own `\<Contributor>InlineComment` command. For example, the following shows Alice’s in-line comments using `\AliceInlineComment` command, i.e.,

`\AliceInlineComment{This is Alice’s in-line comment.}`

produces

Alice: This is Alice’s in-line comment.

Similarly, the following

`\BobInlineComment{And this is Bob’s in-line comment.}`

produces

Bob Smith: And this is Bob’s in-line comment.

Notice how “Bob Smith” is used as the contributor’s identification.

Comment Addressing Other Contributors. A contributor can comment addressing other contributors with her own `\<Contributor>CommentTo` command. For example, the following shows Alice’s comments to Bob using `\AliceCommentTo` command, i.e.,

Alice: →**Bob** This is Alice’s comment to Bob.

`\AliceCommentTo{Bob}{This is Alice’s comment to Bob.}`

produces the comment on the margin with a link to the place with the command is issued (here after the word “produces”). Similarly, the following

Bob Smith: And this is Bob’s comment.

`\BobComment{And this is Bob’s comment.}`

produces the comment on the margin. Notice how “Bob Smith” is used as the contributor’s identification.

3 Implementation

Our implementation is based on the `todonotes` and `soul` packages.

```
\RequirePackage{soul}
\RequirePackage{todonotes}
\RequirePackage{etoolbox}
\RequirePackage{xargs}
```

`\newabbrev` The `\newabbrev` makes use of the worker macro `\newfullabbrev` for creating abbreviations macros.

```
% A wrapper for \ifstrequal to make sure that the first argument is properly expanded
\newcommand{\chgtrk@ifstrequal}{\expandafter\ifstrequal\expandafter}
```

```

% Create a new contributor, i.e., the set of macros for the
% contributor to add, delete, change, comment, and comment inline.
% Arguments:
% 1. The macro prefix string, (OPTIONAL) if empty then the contributor name will be used.
% 2. The contributor name
% Usage:
% - \CT@contributor{Susan} will create a new set of macros
% \SusanAdd, \SusanDelete, \SusanChange, \SusanComment,
% \SusanInlineComment, which will be expanded to \CT@add[Susan],
% \CT@delete[Susan], \CT@change[Susan], \CT@comment[Susan],
% \CT@inlinecommented[Susan]
% - \CT@contributor[sls]{Susan Louise Smith} will create a new set of macros
% \slsAdd, \slsDelete, \slsChange, \slsComment,
% \slsInlineComment, which will be expanded to \CT@add[Susan Louise Smith],
% \CT@delete[Susan Louise Smith], \CT@change[Susan Louise Smith], \CT@comment[Susan Louise Smith],
% \CT@inlinecommented[Susan Louise Smith]
\newcommand{\CT@contributor}[2][]{%
  \chgtrk@ifstrequal{#1}{-}{%
    \expandafter\def\csname #2Add\endcsname{\CT@add[#2]}%
    \expandafter\def\csname #2Delete\endcsname{\CT@delete[#2]}%
    \expandafter\def\csname #2Change\endcsname{\CT@change[#2]}%
    \expandafter\def\csname #2Comment\endcsname{\CT@comment[#2]}%
    \expandafter\def\csname #2CommentTo\endcsname{\CT@commentto[#2]}%
    \expandafter\def\csname #2InlineComment\endcsname{\CT@inlinecomment[#2]}%
    \expandafter\def\csname #2InlineCommentTo\endcsname{\CT@inlinecommentto[#2]}%
  }{%
    \expandafter\def\csname #1Add\endcsname{\CT@add[#2]}%
    \expandafter\def\csname #1Delete\endcsname{\CT@delete[#2]}%
    \expandafter\def\csname #1Change\endcsname{\CT@change[#2]}%
    \expandafter\def\csname #1Comment\endcsname{\CT@comment[#2]}%
    \expandafter\def\csname #1CommentTo\endcsname{\CT@commentto[#2]}%
    \expandafter\def\csname #1InlineComment\endcsname{\CT@inlinecomment[#2]}%
    \expandafter\def\csname #1InlineCommentTo\endcsname{\CT@inlinecommentto[#2]}%
  }%
}%

\let\newCTcontributor\CT@contributor

\newcommand{\TODOthiswillnotshow}[2][1=]{\todo[disable,#1]{#2}}%

% Arguments:
% 1. (Optional) Contributor
% 2. Add text
\newcommand{\CT@add}[2][]{%
  \chgtrk@ifstrequal{#1}{-}{%
    % Do nothing
  }{%
    \todo[linecolor=orange,backgroundcolor=orange!25,bordercolor=orange]{\textbf{#1} added}%
  }%
  \texthl{#2}%
}%

```

```

\newcommand{\CTadd}[1]{%
  \CT@add{#1}%
}%

% Arguments:
% 1. (Optional) Contributor
% 2. Add text
\newcommand{\CT@delete}[2][]{%
  \chgtrk@ifstrequal{#1}{}{%
    % Do nothing
  }{%
    \todo[linecolor=red,backgroundcolor=red!25,bordercolor=red]{\textbf{#1} delete}%{ }
  }%
  \setstcolor{red}%
  \st{#2}%
}%

\newcommand{\CTdelete}[1]{%
  \CT@delete{#1}%
}%

\newcommand{\CT@change}[3][]{%
  \setstcolor{red}%
  \st{#2}%
  \chgtrk@ifstrequal{#1}{}{%
    % Do nothing
  }{%
    \todo[linecolor=blue,backgroundcolor=blue!25,bordercolor=blue]{\textbf{#1} changed}%{ }
  }%
  \texthl{#3}%
  %\todo[linecolor=blue,backgroundcolor=blue!25,bordercolor=blue]{\textbf{Before}:
  %}%
}%

\newcommand{\CTchange}[2]{%
  \CT@change{#1}{#2}%
}%

\newcommand{\CT@comment}[2][]{%
  \chgtrk@ifstrequal{#1}{}{%
    \todo[linecolor=green,backgroundcolor=green!25,bordercolor=green]{#2}%{ }
  }{%
    \todo[linecolor=green,backgroundcolor=green!25,bordercolor=green]{\textbf{#1}: #2}%{ }
  }%
}%

\newcommand{\CT@commentto}[3][]{%
  \chgtrk@ifstrequal{#1}{}{%
    \todo[linecolor=green,backgroundcolor=green!25,bordercolor=green]{\textbf{#1} \rightarrow \textbf{#2} #3}%{ }
  }{%
    \todo[linecolor=green,backgroundcolor=green!25,bordercolor=green]{\textbf{#1}:
      \rightarrow \textbf{#2} #3}%{ }
  }%
}%

```

```

}%

\newcommand{\CTcomment}[1]{%
  \CT@comment{#1}%
}%

\newcommand{\CTcommentto}[2]{%
  \CT@commentto{#1}{#2}%
}%

\newcommand{\CT@inlinecomment}[2][{}]{%
  \chgtrk@ifstrequal{#1}{%
    \todo[inline, linecolor=green,backgroundcolor=green!25,bordercolor=green]{#2}%{ }
  }{%
    \todo[inline, linecolor=green,backgroundcolor=green!25,bordercolor=green]{\textbf{#1}: #2}
  }%
}%

\newcommand{\CT@inlinecommentto}[3][{}]{%
  \chgtrk@ifstrequal{#1}{%
    \todo[inline,
      linecolor=green,backgroundcolor=green!25,bordercolor=green]{\textbf{#2}
        #3}%
  }{%
    \todo[inline,
      linecolor=green,backgroundcolor=green!25,bordercolor=green]{\textbf{#1}:
        $\rightarrow$\textbf{#2} #3}%
  }%
}%

\newcommand{\CTinlinecomment}[1]{%
  \CT@inlinecomment{#1}%
}%

\newcommand{\CTinlinecommentto}[2]{%
  \CT@inlinecommentto{#1}{#2}%
}%

%%%%% BEGIN Declaration of options %%%%
% =====
\DeclareOption{disabled}{%
  \renewcommand{\CT@add}[2][{}]{%
    #2% Display only the added text
  }%
  \renewcommand{\CT@delete}[2][{}]{% Do nothing
  \renewcommand{\CT@change}[3][{}]{%
    #3% Display only the changed text
  }%
  \renewcommand{\CT@comment}[2][{}]{% Do nothing
  \renewcommand{\CT@inlinecomment}[2][{}]{% Do nothing
}%

%%%%% END Declaration of options %%%%
% =====

```

```

%%%% BEGIN Execution of options %%%
% =====

\ProcessOptions
%%%% END Execution of options %%%

```

Change History

v0.0 v0.1
`\newabbrev:` Macro created 3 General: Initial version 1

Index

Numbers written in *italic* refer to the page where the corresponding entry is described; numbers underlined refer to the definition; numbers in *roman* refer to the pages where the entry is used.

```

ifstrequal= \subitem ifstrequal+ \hyperpage{5} *CTDchange+ \hyperpage{5} **\slsComment+, \hyper
add= \subitem add+, \hyperpage{4--6} = \subitem delete+CTinlinecomment+, \hyperpage{6} hyperp
change= \subitem change+CTinhyperpage{4--6} \subitem delete+CTinlinecomment+ \hyperpage{6} Con
comment= \subitem comment+, \hyperpage{4--6} st= \subitem **\st+, \hyperpage{5}
commentto= \subitem commentto+ \hyperpage{4} +6 \hyperpage{4} \subitem **\SusanAdd+, \hyperp
contributor= \subitem contributor+, \hyperpage{4} SusanChange= \subitem **\SusanChange+, \h
delete= \subitem delete+ \hyperpage{4--6} \subitem **\newcommand+, \hyperpage{4} SusanComment+
inlinecomment= \subitem inlinecomment+, \hyperpage{4} \hyperpage{6} \subitem **\SusanPage+, \h
inlinecommentto= \subitem inlinecommentto+, \hyperpage{4} \hyperpage{6} \subitem **\SusanInli
inlinecommmented= \subitem inlinecommentto+, \hyperpage{4} \hyperpage{5, 6}
CTadd= \subitem **\CTadd+, \hyperpage{5} textbf= \subitem **\textbf+, \hyperpage{4}
CTchange= \subitem **\CTchange+, \hyperpage{5} \setstcolor+, \hyperpage{5} \thl+, \hyperpage{4,
CTcomment= \subitem **\CTcomment+, \hyperpage{4} \subitem **\todo+, \hyperpage{4--6}
CTcommentto= \subitem **\CTcommentto+, \hyperpage{4} \subitem **\TOD0this

```