The tocdata package

v2.06 — 2024/01/12

Optionally prints author, artist, or other data on a line of the TOC / LOF.

Abstract

The tocdata package adds information such as an author or artist to an entry in the table of contents or list of figures or new float type. This new information is placed on a single line along with the caption and page number, as is commonly done in collections of literature, poetry, or art work.

tocdata works with the TOC / LOF formatting of the default LaTeX classes, memoir, koma-script, and with titletoc, tocloft, tocbasic, and tocstyle.

Contents

List of Figures

List of Illustrations

List of Quotations

Hayashi Genbi

Problem 1-2, from *Gokyo Shumyo*

Figure 1: A Challenge

"Go uses the most elemental materials and concepts — line and circle, wood and stone, black and white — combining them with simple rules to generate subtle strategies and complex tactics that stagger the imagination."

Iwamoto Kaoru — former *Honinbo* title holder

Quotation 1: *Go uses the most elemental materials and concepts …*

1   Introduction

— Brian Dunn

Anthologies may be printed with the author alongside each title in the table of contents.

Many commonly-recommended methods for doing this with LaTeX, such as those linked to in section 2, place the author above or below the title and page number, but seldom on the same line.

The tocdata package provides some basic infrastructure to help add some information to a line in the table of contents, after the title and just before the page number. This function works with the standard LaTeX classes, or with either of the titletoc or tocloft packages.

Additionally, user-level macros are provided which add the author's name to a chapter or section, and add the author's or artist's name and optional additional text to a figure. Author and artist names are also added to the index.

As examples of the use of these high-level macros, the major section headings of this documentation have the author's name applied, and additional figures, illustrations, and quotes are supplied as well. The results are demonstrated in the table of contents, list of figures, list of illustrations, list of quotes, and the index.[1]

---

[1]Yes, I *do* recognize the absurdity of placing my own name in the index amongst the likes of Churchill, Genbi, Herschel, Kaoru, Newton …
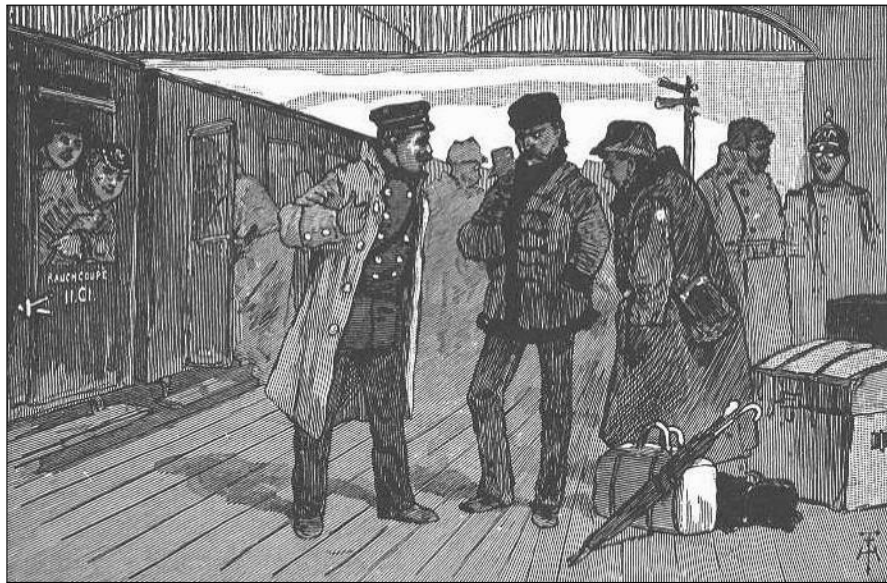
H. F. Farny

Illustration from *The Crazy Engineer*

McGuffey's Fifth Eclectic Reader

Illustration 1: The Crazy Engineer

2   Other methods

> — *Various Authors*

For other methods which place the author on a separate line from the title, see the following.

⚠ Too much text! Note that these methods will be preferable if a larger amount of information is to be placed for each title, such that it usually would not all fit on one line in the table of contents.

http://tex.stackexchange.com/questions/47554/add-authors-name-automatically-while-building-toc

http://tex.stackexchange.com/questions/110218/add-author-before-chapter-title-in-toc

http://tex.stackexchange.com/questions/156862/displaying-author-for-each-chapter-in-book
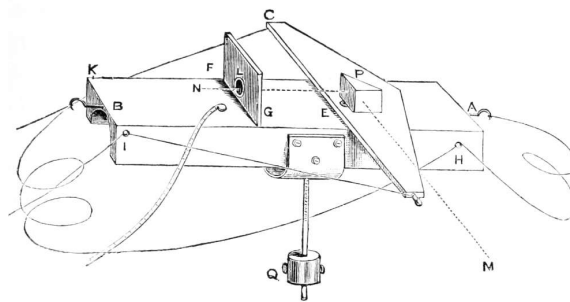
SIR JOHN HERSCHEL, 1ST BARONET KH FRS

Astronometer made to compare the light of certain stars by the intervention of the moon.

Figure 2: Astronometer

3 How to use tocdata

— Brian Dunn

This section shows how to use the tocdata package.

There are several layers of macros:

- The lowest level provides the basic infrastructure for inserting information into the table of contents, along with hooks for the titletoc and tocloft packages.

- The intermediate-level macro is \tocdata, which may be used to manually add a piece of data to a \chapter, \section, or \caption. \tocdataformat is also provided to control the appearance of this data in the TOC / LOF.

- At the highest level is a sample implementation of user-level macros which provides an easy way to create chapters, sections, and figures with associated authors and artists, along with supplemental information for figures, and automatic index entries.

3.1 Basic setup

3.1.1 Preamble

tocdata may be used with either the tocloft or titletoc package, or neither.

In the preamble, use:

```
\usepackage{tocdata}
\usepackage{titletoc}% optional
\usepackage{tocloft}% optional
```

3.2 Mid-level applications

Should the user only wish to add a bit of text into the TOC/LOF, the \tocdata macro may be used just before the sectioning or caption command, as shown below.

3.2.1 Font control in the TOC/LOF

\tocdataformat   {⟨*text*⟩}

To control the font and formatting used for the author on the table-of-contents line, the default is:

```
\newcommand{\tocdataformat}[1]{{\normalfont\textit{\small#1}}}
```

You may change to other font options, add parenetheses, etc.:

```
\renewcommand{\tocdataformat}[1]{%
    \normalfont\textsc{\footnotesize\qquad --- (#1)}%
}
```

3.2.2 Adding TOC data per section

\tocdata   {⟨*list extension*⟩} {⟨*text*⟩}

Before each \chapter or \section which is to have an author or other data:

```
\tocdata{toc}{Author's Name}
\chapter{Chapter Title}    -or-    \section{Section Title}
```

3.2.3 Adding LOF data per figure

Before each \caption which is to have an artist or author:

```
\tocdata{lof}{Artist's/Author's Name}
\caption{Figure Title}
```

You may wish to print the artist's name in the figure as well.

3.3 High-level user macros

Additional macros are given in section 4.8. These are user-level sectioning and captioning commands which add the names to the TOC and LOF, and also add the artist's name and optional additional text to a figure or other float (as in Figure 2), and also

add the names to the index. An optional prefix and suffix may be attached to the names (as in Figure 2), and these will be printed at the section heading or caption, but not in the TOC / LOF or in the index.

These macros may be ignored or modified as needed.

3.3.1 Sectioning commands with authors

\partauthor \
\chapterauthor \
\sectionauthor \
\subsectionauthor

To use these macros, do not use \tocdata as shown above, but instead use, in the place of \part:

```
\partauthor[list entry]{Title}[Prefix]{First}{Last}[Suffix]
```

Likewise for chapters, sections, and subsections.

3.3.2 Figure captions with author / artist names and additional text

\captionartist \
\captionauthor

For figures, in the place of \caption, use:

```
\captionartist[list entry]{Title}[Text][Prefix]{First}{Last}[Suffix]
    -or-
\captionauthor[list entry]{Title}[Text][Prefix]{First}{Last}[Suffix]
```

By default, \captionartist prints the artist centered below the figure, and \captionauthor prints the author below and flush right, without an extra vertical skip.

⚠ Optional arguments

If you are using the optional prefix, the optional text must also be given, even if it is empty. For example, use:

```
\captionartist{Title}[][Sir]{Isaac}{Newton}
```

(If only one optional argument is given before the first name, it will be interpreted as the optional text, not as the optional prefix.)

\captionartist* \
\captionauthor*

If you are using the caption package or another package which supports \caption*, you may use \captionartist* and \captionauthor* with tocdata. The artist / author and supplemental text will still be printed below the figure, and an unnumbered caption will be generated, even though a LOF entry will not be made.

⚠ caption package

Should you mistakenly use \captionartist* or \captionauthor* without the caption package, expect to get a caption with a visible star in it. To fix the problem:
```
\usepackage{caption}
```

3.3.3 Formatting in sections and figures

\tocdatapartprint \
\tocdatachapterprint \
\tocdatasectionprint \
\tocdatasubsectionprint

To change the formatting of the author names printed after each chapter or section,

or to remove them entirely, use these macros, as described in section 4.8 on page 18.

⚠ redefining   \tocdatachapterprint and \tocdatasectionprint by default depend on \tocdatapartprint, so if it is redefined the others will have to be redefined as well.

\tocdataartistprint
\tocdataartisttextprint
\tocdataauthorprint
\tocdataauthortextprint

To change the formatting of a figure's artist's name or author's name and optional text, use these macros, also described in section 4.8.

3.3.4   Text justification

\tdartistjustify
\tdartistcenter
\tdartistleft
\tdartistright
\tdartisttextjustify
\tdartisttextcenter
\tdartisttextleft
\tdartisttextright
\tdauthorjustify
\tdauthorcenter
\tdauthorleft
\tdauthorright
\tdauthortextjustify
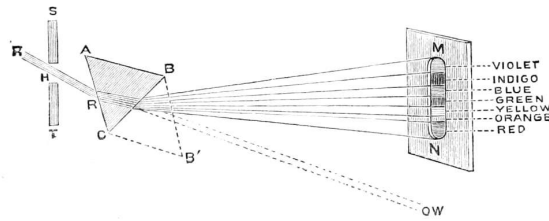\tdauthortextcenter
\tdauthortextleft
\tdauthortextright

The text alignment of artists, artists' additional text, authors, and authors' additional text may be set using these macros. All following figures use the selected justification until it is changed to another.

ALEXANDER POPE

Illustration from *About Quail*

McGuffey's Fifth Eclectic Reader

Illustration 2: Quail

Sir Isaac Newton

Figure 3: Diagram of a Sunbeam

4   Code

— Brian Dunn

Below, the tocdata code section contains the low-level code used to place the data into the table of contents and list of figures, as well as the code to control the font used while doing so.

Next are sections used to support the default LaTeX classes, as well as titletoc and tocloft.

Finally, the high-level macros are provided. The user may ignore or redefine these as desired.

4.1   Requirements

```
1 \RequirePackage{xparse}
2 \RequirePackage{etoolbox}
3 \RequirePackage{xpatch}
```

Require that titletoc and tocloft be loaded after tocdata, so that tocdata can patch the LaTeX core definitions first.

```
4 \@ifpackageloaded{titletoc}{
5     \PackageError{tocdata}
6         {%
7             Load titletoc after tocdata%
8         }
9         {%
10        Move \protect\usepackage{titletoc} after \protect\usepackage{tocdata}.%
11        }
12 }{}
13
14 \@ifclassloaded{memoir}
15 {}% memoir
16 {% not memoir
17
```

```
18 \@ifpackageloaded{tocloft}{
19     \PackageError{tocdata}
20        {%
21            Load tocloft after tocdata%
22        }
23        {%
24        Move \protect\usepackage{tocloft} after \protect\usepackage{tocdata}.%
25        }
26 }{}
27
28 }% not memoir
```

Prevent the use of both titletoc and tocloft.

```
29 \AtBeginDocument{
30 \@ifpackageloaded{titletoc}{
31     \@ifpackageloaded{tocloft}{
32        \PackageError{tocdata}
33           {%
34               Both titletoc and tocloft are being used.\MessageBreak
35               Load only one%
36           }
37           {%
38           The tocdata package may use the default LaTeX formatting,\MessageBreak
39               or either one of titletoc or tocloft.
40           }
41     }{}
42 }{}
43 }
```

4.2   tocdata code

\TD@thistocdata   Storage for the data to be added to the end of the TOC entry:

```
44 \newcommand{\TD@thistocdata}{}
```

\settocdata   Written to the .toc or .lof file, assigns \TD@thistocdata:

```
45 \newcommand{\settocdata}[1]{\renewcommand{\TD@thistocdata}{#1}}
```

\tocdata   {⟨toc *or* lof⟩} {⟨*text*⟩}

To be called by a higher-level macro to assign data to a .toc or .lof file:

```
46 \newcommand{\tocdata}[2]{%
47     \@bsphack\addtocontents{#1}{\protect\settocdata{#2}}\@esphack%
48 }
```

\tocdatafont   {⟨*text*⟩}   Provided for compatibility with older documents. Instead, use and rede-
⚠ deprecated   fine \tocdataformat for newer documents.

49 \newcommand{\tocdatafont}[1]{{\normalfont\textit{\small#1}}}

\tocdataformat {⟨*text*⟩}

Controls the font and formatting for the TOC data:

    \renewcommand{\tocdataformat}[1]{\textit{#1}}

50 \def\tocdataformat{\tocdatafont}

\TD@usetocdata To be inserted into low-level TOC-generation code where the data should appear.

See the example using titletoc, below.

Prints the data, then clears the storage so it is not printed again.

51 \newcommand{\TD@usetocdata}{%
52   \ifdefvoid{\TD@thistocdata}{}{%
53   \tocdataformat{\TD@thistocdata}%
54   \global\def\TD@thistocdata{}%
55   }%
56 }

\TD@checktocdatafont {⟨*text*⟩}

Used to detect whether the user redefined \tocdatafont, in which case a warning is issued to use \tocdataformat instead.

57 \let\TD@checktocdatafont\tocdatafont
58
59 \AtBeginDocument{
60 \ifdefequal\TD@checktocdatafont\tocdatafont{}{
61   \PackageWarningNoLine{tocdata}{%
62   You have redefined \protect\tocdatafont,\MessageBreak
63   which has been deprecated. Please redefine\MessageBreak
64   \protect\tocdataformat\space instead}
65 }
66 }

4.3   Standard LaTeX patches

\TD@patchstandardlatex Patches standard LaTeX TOC formatting.

67 \newcommand*{\TD@patchstandardlatex}{

\@dottedtocline Patched for tocdata.

68 \xpatchcmd{\@dottedtocline}

```
69      {\hfill\nobreak}
70      {\hfill\TD@usetocdata\nobreak}
71      {}%
72      {%
73          \PackageWarningNoLine{tocdata}{%
74              Could not patch LaTeX core \protect\@dottedtocline.\MessageBreak
75              Authors may not appear in TOC, LOF}
76      }%
```

\l@part   Patched for tocdata.

```
77 \@ifclassloaded{memoir}{}{%
78 \@ifpackageloaded{tocbasic}{}{%
79 \xpatchcmd{\l@part}
80      {\hfil}
81      {\hfil\TD@usetocdata}
82      {}%
83      {%
84          \PackageWarningNoLine{tocdata}{%
85              Could not patch LaTeX core \protect\l@part.\MessageBreak
86              Authors may not appear in TOC parts}
87      }%
88 }}
```

\l@chapter   Patched for tocdata.

```
89 \@ifclassloaded{memoir}{}{%
90 \@ifpackageloaded{tocbasic}{}{%
91 \@ifundefined{chapter}{}{%
92 \xpatchcmd{\l@chapter}
93      {\hfil\nobreak}
94      {\hfil\TD@usetocdata\nobreak}
95      {}%
96      {%
97          \PackageWarningNoLine{tocdata}{%
98              Could not patch LaTeX core \protect\l@chapter.\MessageBreak
99              Authors may not appear in TOC chapters}
100     }%
101 }}}
```

\l@section   Patched for tocdata.

```
102 \@ifclassloaded{article}{
103 \xpatchcmd{\l@section}
104     {\hfil\nobreak}
105     {\hfil\TD@usetocdata\nobreak}
106     {}%
107     {%
108         \PackageWarningNoLine{tocdata}{%
109             Could not patch LaTeX core \protect\l@section.\MessageBreak
110             Authors may not appear in TOC sections}
111     }%
```

$$\pi$$

GREEK ALPHABET

Figure 4: Pi

112 }{}

113 }% TD@patchstandardlatex

Patch standard LaTeX if not using lwarp, or if lwarp is used in print mode:

```
114 \@ifpackageloaded{lwarp}{%
115     \ifbool{warpingprint}{\TD@patchstandardlatex}{}%
116 }{%
117     \TD@patchstandardlatex%
118 }
```

4.4   titletoc support

If titletoc is loaded, patch macros for its use:

```
119 \AtBeginDocument{
120 \@ifpackageloaded{titletoc}{
```

\titlecontents   A set of titletoc commands which set up the formatting of the TOC entries. These are patched \AtBeginDocument, after user customizations in the preamble, to include the tocdata just after the leader (titlerule*), and just before the page number.

These macros also include spacing commands, and thus may need to be redefined by the user.

The default macros are patched via the LaTeX core. The following are only necessary if \titlecontents was used. Since every combination is tried, but will only succeed if \titlecontents was used, no warnings are printed if the patch fails.

```
121 \newcommand*{\TD@titletoc@patch}[1]{%
122     \expandafter\xpatchcmd\csname ttl@savel@#1\endcsname
123         {\nobreak\hfil\nobreak}
124         {\nobreak\hfil\TD@usetocdata\nobreak}
125         {}
126         {%
127             \PackageWarningNoLine{tocdata}{%
128                 Could not patch titletoc ttl@savel@#1.\MessageBreak
129                 Authors may not appear in TOC, LOF}
130         }
131     \expandafter\xpatchcmd\csname l@#1\endcsname
132         {\contentspage}
133         {\TD@usetocdata\contentspage}
134         {}
```

```
135        {%
136            \PackageWarningNoLine{tocdata}{%
137                Could not patch titletoc l@#1.\MessageBreak
138                Authors may not appear in TOC, LOF}
139        }
140 }
141
142 \TD@titletoc@patch{part}
143 \@ifundefined{chapter}{}{\TD@titletoc@patch{chapter}}
144 \TD@titletoc@patch{section}
145 \TD@titletoc@patch{subsection}
146 \TD@titletoc@patch{subsubsection}
147 \TD@titletoc@patch{paragraph}
148 \TD@titletoc@patch{subparagraph}
149 \TD@titletoc@patch{figure}
150 \TD@titletoc@patch{table}
151 }% end of titletoc loaded
152 {% titletoc is not loaded
153 }% end of \@ifpackageloaded{titletoc}
154 }% end of \AtBeginDocument
```

4.5 tocloft and memoir support

If tocloft is loaded, the following patches are applied. memoir emulates tocloft, so it is patched here as well.

```
155 \AtBeginDocument{
156 \@ifclassloaded{memoir}
157 {
158 \appto{\cftpartleader}{\TD@usetocdata}
159 \appto{\cftchapterleader}{\TD@usetocdata}
160 \appto{\cftsectionleader}{\TD@usetocdata}
161 \appto{\cftsubsectionleader}{\TD@usetocdata}
162 \appto{\cftsubsubsectionleader}{\TD@usetocdata}
163 \appto{\cftparagraphleader}{\TD@usetocdata}
164 \appto{\cftsubparagraphleader}{\TD@usetocdata}
165 \appto{\cftfigureleader}{\TD@usetocdata}
166 \appto{\cfttableleader}{\TD@usetocdata}
167 \appto{\cftsubfigureleader}{\TD@usetocdata}
168 \appto{\cftsubtableleader}{\TD@usetocdata}
169 }% memoir
170 {% not memoir
171 \@ifpackageloaded{tocloft}
172 {
```

\cftXleader   A set of commands used by \tocloft to typeset the leader between the title and the page number. These are patched to print the tocdata just after the leader.

```
173 \appto{\cftpartleader}{\TD@usetocdata}
174 \if@cfthaschapter
175     \appto{\cftchapleader}{\TD@usetocdata}
176 \fi
```

```
177 \appto{\cftsecleader}{\TD@usetocdata}
178 \appto{\cftsubsecleader}{\TD@usetocdata}
179 \appto{\cftsubsubsecleader}{\TD@usetocdata}
180 \appto{\cftparaleader}{\TD@usetocdata}
181 \appto{\cftsubparaleader}{\TD@usetocdata}
182 \appto{\cftfigleader}{\TD@usetocdata}
183 \appto{\cfttableader}{\TD@usetocdata}
184 \appto{\cftsubfigleader}{\TD@usetocdata}
185 \appto{\cftsubtableader}{\TD@usetocdata}

186 }% end of tocloft patches
187 {}% tocloft not loaded
188 }% not memoir
189 }% \AtBeginDocument
```

4.6 Koma-script tocbasic support

There is no easy way to patch this... \TD@usetocdata is inserted near the end of the
following:

```
190 \AtBeginDocument{
191
192 \@ifpackageloaded{tocbasic}{
193 \xpatchcmd{\scr@dte@tocline}
194     {%
195         \nobreak
196         \expandafter\let\expandafter\scr@dte@pagenumberwidth
197     }
198     {%
199         \TD@usetocdata%      tocdata
200         \nobreak
201         \expandafter\let\expandafter\scr@dte@pagenumberwidth
202     }
203     {}
204     {%
205         \PackageWarningNoLine{tocdata}{%
206             Could not patch tocbasic \protect\scr@dte@tocline.\MessageBreak
207             Authors may not appear in TOC, LOF}
208     }
209 }{}
210 }
```

4.7 tocstyle support

```
211 \AtBeginDocument{
212 \@ifpackageloaded{tocstyle}{
213 \xpatchcmd\tocstyle@dottedtocline
214     {%
215       \ifx\tocstyle@feature@leaders\relax
216         \leaders\hbox{$\m@th
```

```
217          \mkern \@dotsep mu\hbox{\tocstyle@feature@dothook .}%
218          \mkern \@dotsep mu$}\hfill
219       \else
220         \tocstyle@feature@leaders
221       \fi%
222    }
223    {%
224      \ifx\tocstyle@feature@leaders\relax
225        \leaders\hbox{$\m@th
226          \mkern \@dotsep mu\hbox{\tocstyle@feature@dothook .}%
227          \mkern \@dotsep mu$}\hfill
228      \else
229        \tocstyle@feature@leaders
230      \fi%
231      \TD@usetocdata%
232    }
233    {}%
234    {%
235          \PackageWarningNoLine{tocdata}{%
236        Could not patch tocstyle \protect\tocstyle@dottedtocline.\MessageBreak
237            Authors may not appear in TOC, LOF}
238      }%
239 }{}
240 }
```

Sᴉʀ Iꜱᴀᴀᴄ Nᴇᴡᴛᴏɴ
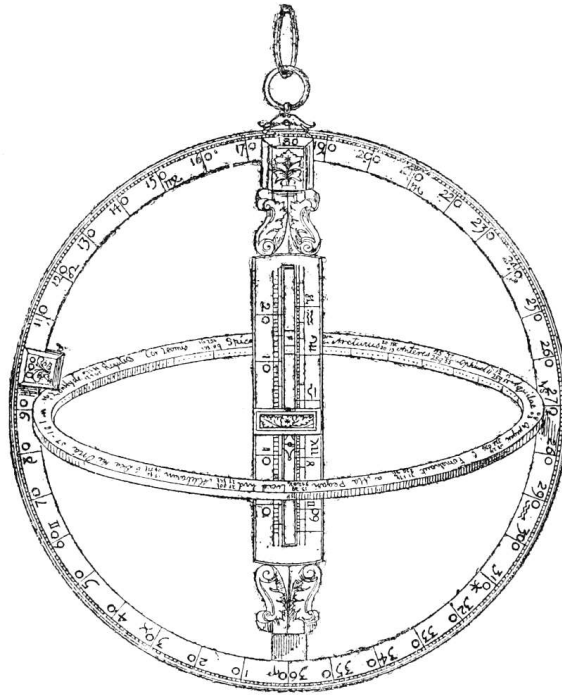
Figure 5: Sir Isaac Newton's Astrolabe

4.8   User-level macros

Example user-level macros follow.

These macros are in addition to the standard sectioning and caption commands, adding first and last names for the table of contents and list of figures. For parts, chapters, sections, and subsections, the author's name with optional prefix and suffix are also added below the title. For figures, \captionauthor also prints the figure's artist's name with optional prefix and suffix just below the figure.

The regular sectioning and caption commands may still be used for anything which does not have an author/artist name.

4.8.1   User customization

\TDoptionalnameprint {⟨*name*⟩}

Adds optional artist's name and the following space.

```
241 \newcommand{\TDoptionalnameprint}[1]
242 {%
243     \ifblank{#1}%
```

```
244     {}%
245     {#1~}%
246 }
```

\tocdatapartprint {⟨*prefix*⟩} {⟨*first*⟩} {⟨*last*⟩} {⟨*suffix*⟩}

User-redefinable macro to print the author's name underneath the part title.

```
247 \newcommand{\tocdatapartprint}[4]
248 {%
249     \par\noindent%
250     {%
251         \normalfont\normalsize%
252         \textit{%
253             \hspace*{4em}--- %
254             \TDoptionalnameprint{#1}\TDoptionalnameprint{#2}#3#4%
255         }%
256     }%
257 }
```

\tocdatachapterprint {⟨*prefix*⟩} {⟨*first*⟩} {⟨*last*⟩} {⟨*suffix*⟩}

User-redefinable macro to print the author's name underneath the chapter title.

```
258 \@ifundefined{chapter}
259 {}% if no chapters
260 {% only of chapters exists in this documentclass:
261     \let\tocdatachapterprint\tocdatapartprint
262 }% end of chapters-only
```

\tocdatasectionprint {⟨*prefix*⟩} {⟨*first*⟩} {⟨*last*⟩} {⟨*suffix*⟩}

User-redefinable macro to print the author's name underneath the section title.

```
263 \let\tocdatasectionprint\tocdatapartprint
```

\tocdatasubsectionprint {⟨*prefix*⟩} {⟨*first*⟩} {⟨*last*⟩} {⟨*suffix*⟩}

User-redefinable macro to print the author's name underneath the subsection title.

```
264 \let\tocdatasubsectionprint\tocdatapartprint
```

\TDartistauthorprint {⟨*1: "artist" or "author"*⟩} {⟨*2: prefix*⟩} {⟨*3: first*⟩} {⟨*4: last*⟩} {⟨*5: suffix*⟩}

```
265 \newcommand{\TDartistauthorprint}[5]{%
266     \begin{minipage}{\linewidth}%
267     \csuse{TD@#1align}%
268     \footnotesize\normalfont%
269     \textsc{{\TDoptionalnameprint{#2}\TDoptionalnameprint{#3}#4#5}}%
270     \end{minipage}%
```

```
271     \par%
272     \addvspace{2ex}%
273 }
```

\tocdataartistprint {⟨*prefix*⟩} {⟨*first*⟩} {⟨*last*⟩} {⟨*suffix*⟩}

User-redefinable macro to print the artist's name underneath the figure.

```
274 \newcommand{\tocdataartistprint}{%
275     \par\smallskip%
276     \TDartistauthorprint{artist}%
277 }
```

To remove the artist's name, redefine this as a null function taking four arguments:

```
\renewcommand{\tocdataartistprint}[4]{}
```

\tocdataauthorprint {⟨*prefix*⟩} {⟨*first*⟩} {⟨*last*⟩} {⟨*suffix*⟩}

User-redefinable macro to print the author's name underneath the figure.

```
278 \newcommand{\tocdataauthorprint}{%
279     \par\smallskip%
280     \TDartistauthorprint{author}%
281 }
```

\TDartistauthortextprint {⟨*"artist" or "author"*⟩} {⟨*text*⟩}

```
282 \newcommand{\TDartistauthortextprint}[2]{%
283     \addvspace{2ex}%
284     \begin{minipage}{\linewidth}%
285     \csuse{TD@#1textalign}%
286     \footnotesize\normalfont%
287     \setlength{\parskip}{1.5ex}%
288     \setlength{\parindent}{0em}%
289     #2%
290     \end{minipage}%
291     \par%
292     \addvspace{2ex}%
293 }
```

\tocdataartisttextprint {⟨*text*⟩}

User-redefinable macro to print the optional text below the artist's name.

```
294 \newcommand{\tocdataartisttextprint}{\TDartistauthortextprint{artist}}
```

\tocdataauthortextprint {⟨*text*⟩}

User-redefinable macro to print the optional text below the author's name.

```
295 \newcommand{\tocdataauthortextprint}{\TDartistauthortextprint{author}}
```

4.8.2 Chapters and sections

⚠ \part* With book or report classes, a starred \part's name is printed on its own page, making it difficult to add an author's name. If the author's name is appended to the part's name, it also appears in name references as well. Thus, if using one of these classes and a starred \part, the author's name is not printed. Using an unstarred \part with an author's name does work as expected. The author's name is printed as part of the long name, but does not appear in the name reference, which uses the short name.

\TD@starredsectionauthorprint {⟨*author's name*⟩}

```
296 \@ifclassloaded{article}
297 {
298     \newcommand*{\TD@starredsectionauthorprint}[5]{%
299         \unskip\medskip\csuse{tocdata#1print}{#2}{#3}{#4}{#5}\par%
300         \bigskip%
301     }
302 }
303 {
304     \newcommand*{\TD@starredsectionauthorprint}[5]{%
305         \ifstrequal{#1}{part}%
306         {%
307             \PackageWarning{tocdata}{%
308                 The author's name will not be printed for\MessageBreak
309                 the starred \protect\part%
310             }
311         }%
312         {%
313             \unskip\medskip\csuse{tocdata#1print}{#2}{#3}{#4}{#5}\par%
314             \bigskip%
315         }%
316     }
317 }
```

\TD@sectionauthor {⟨*1: section type*⟩} * [⟨*3: toc entry*⟩] {⟨*4: title*⟩} [⟨*5: prefix*⟩] {⟨*6: first*⟩} {⟨*7: last*⟩} [⟨*8: suffix*⟩]

```
318 \NewDocumentCommand{\TD@sectionauthor}{m s o m O{} m m O{}}{%
```

The starred version does not create a TOC entry, so it is simply used as-is:

```
319     \IfBooleanTF{#2}%
320     {% star:
321         \csuse{#1}*{#4}%
322         \TD@starredsectionauthorprint{#1}{#5}{#6}{#7}{#8}%
323     }%
```

The un-starred version appears in the TOC, so add the author's name:

```
324    {% no star:
325        \tocdata{toc}{#6 #7}%
```

Create the section depending on the optional name:

```
326        \IfValueTF{#3}%
327        {\csuse{#1}[#3]{#4\nopagebreak\csuse{tocdata#1print}{#5}{#6}{#7}{#8}}}%
328        {\csuse{#1}[#4]{#4\nopagebreak\csuse{tocdata#1print}{#5}{#6}{#7}{#8}}}%
329    }% no star
```

Create an index entry depending on whether there is a first name:

```
330    \ifblank{#6}%
331        {\index{#7}}%
332        {\index{#7, #6}}%
333 }
```

\partauthor * [⟨*2: toc entry*⟩] {⟨*3: title*⟩} [⟨*4: prefix*⟩] {⟨*5: first*⟩} {⟨*6: last*⟩} [⟨*7: suffix*⟩]

```
334 \newcommand*{\partauthor}{\TD@sectionauthor{part}}
```

\chapterauthor * [⟨*2: toc entry*⟩] {⟨*3: title*⟩} [⟨*4: prefix*⟩] {⟨*5: first*⟩} {⟨*6: last*⟩} [⟨*7: suffix*⟩]

```
335 \@ifundefined{chapter}
336 {}% if no chapters
337 {% only of chapters exists in this documentclass:
338    \newcommand*{\chapterauthor}{\TD@sectionauthor{chapter}}
339 }
```

\sectionauthor * [⟨*2: toc entry*⟩] {⟨*3: title*⟩} [⟨*4: prefix*⟩] {⟨*5: first*⟩} {⟨*6: last*⟩} [⟨*7: suffix*⟩]

```
340 \newcommand*{\sectionauthor}{\TD@sectionauthor{section}}
```

\subsectionauthor * [⟨*2: toc entry*⟩] {⟨*3: title*⟩} [⟨*4: prefix*⟩] {⟨*5: first*⟩} {⟨*6: last*⟩} [⟨*7: suffix*⟩]

```
341 \newcommand*{\subsectionauthor}{\TD@sectionauthor{subsection}}
```

4.8.3   Figure artist name alignment

\TD@artistalign   Sets text alignment for the artist's name.

```
342 \newcommand{\TD@artistalign}{\centering}
```

\tdartistjustify   Sets justified text alignment for the artist's name.

```
343 \newcommand{\tdartistjustify}{%
344     \renewcommand{\TD@artistalign}{}%
345 }
```

\tdartistcenter   Sets centered text alignment for the artist's name.

```
346 \newcommand{\tdartistcenter}{%
347     \renewcommand{\TD@artistalign}{\centering}%
348 }
```

\tdartistleft   Sets left text alignment for the artist's name.

```
349 \newcommand{\tdartistleft}{%
350     \renewcommand{\TD@artistalign}{\raggedright}%
351 }
```

\tdartistright   Sets right text alignment for the artist's name.

```
352 \newcommand{\tdartistright}{%
353     \renewcommand{\TD@artistalign}{\raggedleft}%
354 }
```

4.8.4   Figure author name alignment

\TD@authoralign   Sets text alignment for the author's name.

```
355 \newcommand{\TD@authoralign}{\raggedleft}
```

\tdauthorjustify   Sets justified text alignment for the author's name.

```
356 \newcommand{\tdauthorjustify}{%
357     \renewcommand{\TD@authoralign}{}%
358 }
```

\tdauthorcenter   Sets centered text alignment for the author's name.

```
359 \newcommand{\tdauthorcenter}{%
360     \renewcommand{\TD@authoralign}{\centering}%
361 }
```

\tdauthorleft   Sets left text alignment for the author's name.

```
362 \newcommand{\tdauthorleft}{%
363     \renewcommand{\TD@authoralign}{\raggedright}%
364 }
```

\tdauthorright Sets right text alignment for the author's name.

```
365 \newcommand{\tdauthorright}{%
366     \renewcommand{\TD@authoralign}{\raggedleft}%
367 }
```

4.8.5 Figure artist text alignment

\TD@artisttextalign Sets text alignment in the optional text.

```
368 \newcommand{\TD@artisttextalign}{\centering}
```

\tdartisttextjustify Sets justified text alignment in the optional text.

```
369 \newcommand{\tdartisttextjustify}{%
370     \renewcommand{\TD@artisttextalign}{}%
371 }
```

\tdartisttextcenter Sets centered text alignment in the optional text.

```
372 \newcommand{\tdartisttextcenter}{%
373     \renewcommand{\TD@artisttextalign}{\centering}%
374 }
```

\tdartisttextleft Sets left text alignment in the optional text.

```
375 \newcommand{\tdartisttextleft}{%
376     \renewcommand{\TD@artisttextalign}{\raggedright}%
377 }
```

\tdartisttextright Sets right text alignment in the optional text.

```
378 \newcommand{\tdartisttextright}{%
379     \renewcommand{\TD@artisttextalign}{\raggedleft}%
380 }
```

4.8.6 Figure author text alignment

\TD@authortextalign Sets text alignment in the optional text.

```
381 \newcommand{\TD@authortextalign}{\centering}
```

\tdauthortextjustify Sets justified text alignment in the optional text.

```
382 \newcommand{\tdauthortextjustify}{%
383     \renewcommand{\TD@authortextalign}{}%
384 }
```

\tdauthortextcenter Sets centered text alignment in the optional text.

```
385 \newcommand{\tdauthortextcenter}{%
386     \renewcommand{\TD@authortextalign}{\centering}%
387 }
```

\tdauthortextleft Sets left text alignment in the optional text.

```
388 \newcommand{\tdauthortextleft}{%
389     \renewcommand{\TD@authortextalign}{\raggedright}%
390 }
```

\tdauthortextright Sets right text alignment in the optional text.

```
391 \newcommand{\tdauthortextright}{%
392     \renewcommand{\TD@authortextalign}{\raggedleft}%
393 }
```

4.8.7 Figure captions with artists and authors

These macros adds optional supplemental text, which will be printed below the artist's name and above the caption, presuming that the caption is generated below the figure.

⚠ Optional arguments If using the optional prefix, the optional text must also be given, even if it is empty. For example, use:

```
\captionartist{Title}[][Sir]{Isaac}{Newton}
```

If only one optional argument is given before the first name, it will be interpreted as the optional text, not as the optional prefix.

\TD@captionartistauthor {⟨*1: "artist" or "author"*⟩} * [⟨*3: lof entry*⟩] {⟨*4: title*⟩} [⟨*5: supplemental text*⟩] [⟨*6: prefix*⟩] {⟨*7: first*⟩} {⟨*8: last*⟩} [⟨*9: suffix*⟩]

Factored from \captionartist and \captionauthor, below.

```
394 \NewDocumentCommand{\TD@captionartistauthor}{m s o m +O{} O{} m m O{}}{%
```

Print the artist's name next to the figure:

```
395     \csuse{tocdata#1print}{#6}{#7}{#8}{#9}%
```

If supplemental text is provided, print it below the author:

```
396     \ifblank{#5}%
397         {}%
398         {\par\csuse{tocdata#1textprint}{#5}}%
```

Remove any existing vertical space and only use \caption's built-in spacing:

```
399     \unskip%
```

If starred, there should be no TOC entry, so do not add tocdata. Use \caption* from the caption or similar packages.

```
400     \IfBooleanTF{#2}%
401         {% starred
402             \IfValueTF{#3}{\caption*[#3]{#4}}{\caption*{#4}}%
403         }% starred
404         {% not starred
```

No starred, so remember the artist's name for inclusion in the LOF:

```
405             \tocdata{\csuse{ext@\@captype}}{#7 #8}%
```

Create the caption depending on the optional name:

```
406             \IfValueTF{#3}{\caption[#3]{#4}}{\caption{#4}}%
407         }% not starred
```

Create an index entry depending on whether there is a first name:

```
408     \ifblank{#7}%
409         {\index{#8}}%
410         {\index{#8, #7}}%
411 }
```

\captionartist *[⟨*2: lof entry*⟩] {⟨*3: title*⟩} [⟨*4: supplemental text*⟩] [⟨*5: prefix*⟩] {⟨*6: first*⟩} {⟨*7: last*⟩} [⟨*8: suffix*⟩]

```
412 \newcommand*{\captionartist}{\TD@captionartistauthor{artist}}
```

\captionauthor *[⟨*2: lof entry*⟩] {⟨*3: title*⟩} [⟨*4: supplemental text*⟩] [⟨*5: prefix*⟩] {⟨*6: first*⟩} {⟨*7: last*⟩} [⟨*8: suffix*⟩]

```
413 \newcommand*{\captionauthor}{\TD@captionartistauthor{author}}
```

Katsushika Hokusai

From the series *Uma Zukushi.*

Illustration 3: Lacquer Go Board

Change History

Index

Numbers written in italic refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; numbers in roman refer to the code lines where the entry is used.

30

"Now this is not the end. It is not even the beginning of the end. But it is, perhaps, the end of the beginning."

<div align="right">SIR WINSTON LEONARD SPENCER CHURCHILL</div>

<div align="right">(Full name used for demonstration purposes.)</div>

Quotation 2: *Now this is not the end . . .*

$$\Omega$$

GREEK ALPHABET

Figure 6: Omega