

The tocdata package

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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, or with the `titletoc` or `tocloft` packages.

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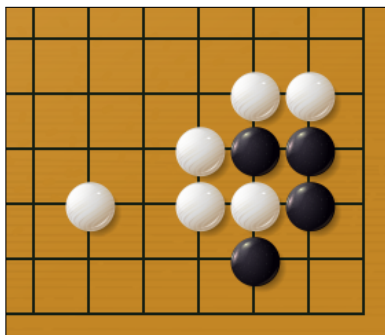
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List of Quotations

1	<i>Go uses the most elemental materials and concepts</i>	<i>Iwamoto Kaoru</i>	4
2	<i>Now this is not the end</i>	<i>Winston Leonard Spencer Churchill</i>	29



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.

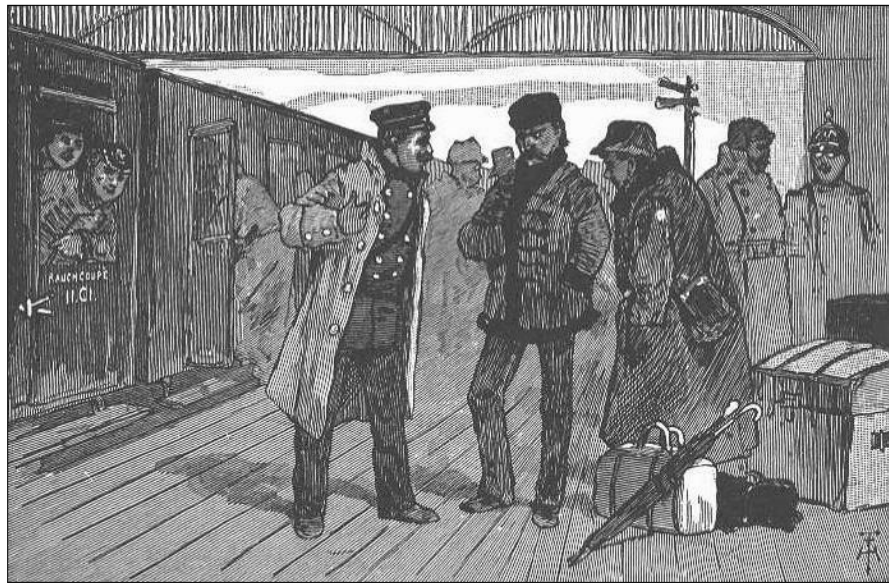
Many commonly-recommended methods for doing this with L^AT_EX, such as those linked to in section 2, place the author above or below the title and page number, but seldom on the same line.

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 L^AT_EX 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.

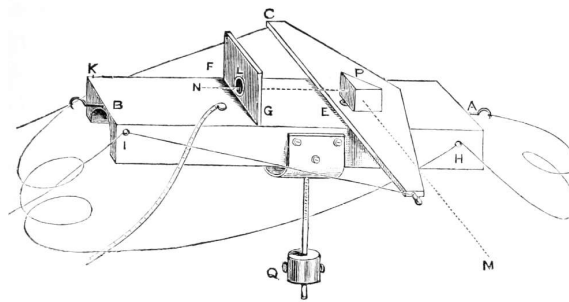
⚠ **Too much text!**

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/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/110218/add-author-before-chapter-title-in-toc)

[http://tex.stackexchange.com/questions/
156862/displaying-author-for-each-chapter-in-book](http://tex.stackexchange.com/questions/156862/displaying-author-for-each-chapter-in-book)



SIR JOHN HERSCHEL, 1ST BARONET KH FRS

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

Figure 2: Astronomer

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`. `\tocdatafont` 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}% optional
\usepackage{titletoc}% optional
\usepackage{tocloft}
```

`\dottedcontents`

If using `titletoc`: Note that the user should not use the `\dottedcontents` macro, as this is not patched for use with `tocdata`. Use `\titlecontents` instead, inserting the `\TD@usetocdata` macro as shown below.

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

```
\tocdatafont {<text>}
```

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

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

You may change to other font options, such as:

```
\renewcommand{\tocdatafont}[1]{\normalfont\textsc{\footnotesize#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 4.6. 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

<pre>\partauthor \chapterauthor \sectionauthor \subsectionauthor</pre>	<p>To use these macros, do not use <code>\tocdata</code> as shown above, but instead use, in the place of <code>\part</code>:</p> <pre>\partauthor[list entry]{Title}[Prefix]{First}{Last}[Suffix]</pre>
--	--

Likewise for chapters, sections, and subsections.

3.3.2 Figure captions with author/artist names and additional text

<pre>\captionartist \captionauthor</pre>	<p>For figures, in the place of <code>\caption</code>, use:</p> <pre>\captionartist[list entry]{Title}[Text][Prefix]{First}{Last}[Suffix] -or- \captionauthor[list entry]{Title}[Text][Prefix]{First}{Last}[Suffix]</pre>
--	---

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

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}
```

Optional arguments

(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 4.6 on page 17.

⚠ **redefining**
⚠ **robust** `\tocdatachapterprint` and `\tocdatasectionprint` by default depend on `\tocdatapartprint`, so if it is redefined the others will have to be redefined as well. Make these macros robust!

`\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 4.6.

3.3.4 Text justification

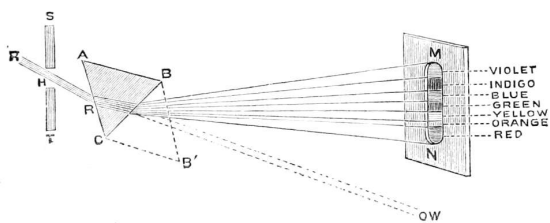
`\tdartistjustify`
`\tdartistcenter`
`\tdartistleft`
`\tdartistright`
`\tdartisttextjustify`
`\tdartisttextcenter`
`\tdartisttextleft`
`\tdartisttextright`
`\tdauthorjustify`
`\tdauthorcenter`
`\tdauthorleft`
`\tdauthorrigh`
`\tdauthortextjustify`
`\tdauthortextcenter`
`\tdauthortextleft`
`\tdauthortextright`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

— *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 \@ifpackageloaded{tocloft}{
14   \PackageError{tocdata}
15     {%
16       Load tocloft after tocdata%
17     }
18   {%
19     Move \protect\usepackage{tocloft} after \protect\usepackage{tocdata}.%
20   }
21 }{}

```

Prevent the use of both titletoc and tocloft.

```

22 \AtBeginDocument{
23 \@ifpackageloaded{titletoc}{
24   \@ifpackageloaded{tocloft}{
25     \PackageError{tocdata}
26       {%
27         Both titletoc and tocloft are being used.\MessageBreak
28         Load only one%
29       }
30     {%
31       The tocdata package may use the default LaTeX formatting,\MessageBreak
32       or either one of titletoc or tocloft.
33     }
34   }{}
35 }{}
36 }

```

4.2 tocdata code

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

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

```

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

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

```

`\tocdata` `{\langle toc or lof \rangle}{\langle text \rangle}`

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

```

39 \newcommand{\tocdata}[2]{%
40   \@bsphack\addtocontents{#1}{\protect\settocdata{#2}}\@esphack%
41 }

```

`\tocdatafont` `{\langle text \rangle}`

Controls the font for the toc data.

```
\renewcommand{\tocdatafont}[1]{\textit{#1}}, etc.
```

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

`\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.

```
43 \newcommand{\TD@usetocdata}{%
44   \tocdatafont{\TD@thistocdata}%
45   \global\def\TD@thistocdata{}%
46 }
```

4.3 Standard L^AT_EX patches

`\@dottedtocline` Patched for `tocdata`.

```
47 \xpatchcmd{\@dottedtocline}
48   {\hfill\nobreak}
49   {\hfill\TD@usetocdata\nobreak}
50   {}%
51   {%
52     \PackageWarningNoLine{tocdata}{%
53       Could not patch LaTeX core \protect\@dottedtocline.\MessageBreak
54       Authors may not appear in TOC, LOF}
55   }%
```

`\l@part` Patched for `tocdata`.

```
56 \xpatchcmd{\l@part}
57   {\hfil}
58   {\hfil\TD@usetocdata}
59   {}%
60   {%
61     \PackageWarningNoLine{tocdata}{%
62       Could not patch LaTeX core \protect\l@part.\MessageBreak
63       Authors may not appear in TOC parts}
64   }%
```

`\l@chapter` Patched for `tocdata`.

$$\pi$$

GREEK ALPHABET

Figure 4: Pi

```

65 \@ifundefined{chapter}
66 {}
67 {
68 \xpatchcmd{\l@chapter}
69   {\hfil\nobreak}
70   {\hfil\TD@usetocdata\nobreak}
71   {}%
72   {%
73     \PackageWarningNoLine{tocdata}{%
74       Could not patch LaTeX core \protect\l@chapter.\MessageBreak
75       Authors may not appear in TOC chapters}
76   }%
77 }

```

`\l@section` Patched for `tocdata`.

```

78 \xpatchcmd{\l@section}
79   {\hfil\nobreak}
80   {\hfil\TD@usetocdata\nobreak}
81   {}%
82   {%
83     \PackageWarningNoLine{tocdata}{%
84       Could not patch LaTeX core \protect\l@section.\MessageBreak
85       Authors may not appear in TOC sections}
86   }%

```

4.4 titletoc support

If `titletoc` is loaded, patch macros for its use:

```

87 \AtBeginDocument{
88 \@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.

 `\dottedcontents`

Note that the user should not use the `\dottedcontents` macro, as this is not patched for use with `tocdata`. Use `\titlecontents` instead, inserting the `\TD@usetocdata` macro as shown below.

The default macros are patched via the L^AT_EX 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.

```

89 \newcommand*{\TD@titletoc@patch}[1]{%
90   \expandafter\xpatchcmd\csname ttl@savel@#1\endcsname
91     {\nobreak\hfil\nobreak}
92     {\nobreak\hfil\TD@usetocdata\nobreak}
93     {}
94     {}
95   \expandafter\xpatchcmd\csname l@#1\endcsname
96     {\contentspage}
97     {\TD@usetocdata\contentspage}
98     {}
99     {}
100 }
101
102 \TD@titletoc@patch{part}
103 \@ifundefined{chapter}{\TD@titletoc@patch{chapter}}
104 \TD@titletoc@patch{section}
105 \TD@titletoc@patch{subsection}
106 \TD@titletoc@patch{subsubsection}
107 \TD@titletoc@patch{paragraph}
108 \TD@titletoc@patch{subparagraph}
109 \TD@titletoc@patch{figure}
110 \TD@titletoc@patch{table}
111 }% end of titletoc loaded
112 {% titletoc is not loaded
113 }% end of \ifpackageloaded{titletoc}
114 }% end of \AtBeginDocument

```

4.5 tocloft support

If `tocloft` is loaded, the following patches are applied:

```

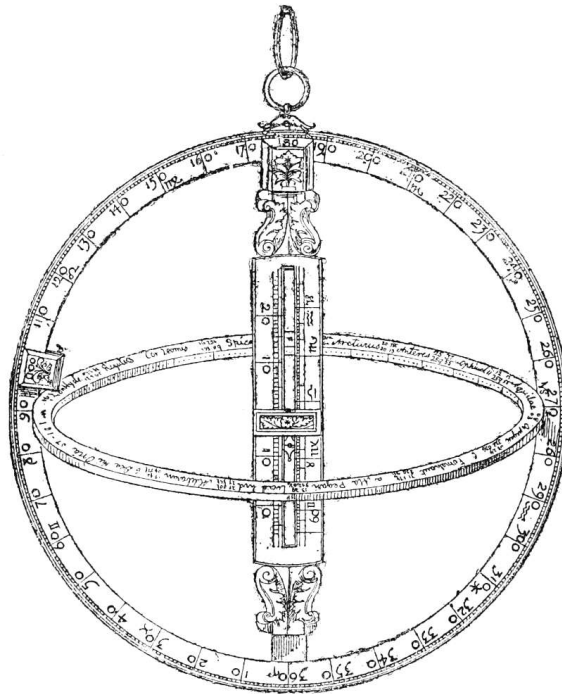
115 \AtBeginDocument{
116 \@ifpackageloaded{tocloft}
117 {

```

`\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.

```
118 \appto{\cftpartleader}{\TD@usetocdata}
119 \if@cfthaschapter
120   \appto{\cftchapleader}{\TD@usetocdata}
121 \fi
122 \appto{\cftsecleader}{\TD@usetocdata}
123 \appto{\cftsubsecleader}{\TD@usetocdata}
124 \appto{\cftsubsubsecleader}{\TD@usetocdata}
125 \appto{\cftparaleader}{\TD@usetocdata}
126 \appto{\cftsubparaleader}{\TD@usetocdata}
127 \appto{\cftfigleader}{\TD@usetocdata}
128 \appto{\cfttableader}{\TD@usetocdata}
129 \appto{\cftsubfigleader}{\TD@usetocdata}
130 \appto{\cftsubtableader}{\TD@usetocdata}

131}% end of tocloft patches
132{}% tocloft not loaded
133}% \AtBeginDocument
```

SIR ISAAC NEWTON

Figure 5: Sir Isaac Newton's Astrolabe

4.6 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.

4.6.1 User customization

`\TD@optionalname` `{\name}`

Adds optional artist's name and the following space.

```
134 \newcommand{\TD@optionalname}[1]
135 {%
136   \ifblank{#1}%
137   {}%
138   {#1~}%
139 }
```

`\tocdatapartprint` $\{\langle prefix \rangle\} \{\langle first \rangle\} \{\langle last \rangle\} \{\langle suffix \rangle\}$

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



Make these macros robust.

```
140 \newrobustcmd{\tocdatapartprint}[4]
141 {%
142   \par\unskip\noindent%
143   {%
144     \normalfont\normalsize%
145     \textit{%
146       \hspace*{4em}--- %
147       \TD@optionalname{#1}\TD@optionalname{#2}#3#4%
148     }%
149   }%
150 }
```

`\tocdatachapterprint` $\{\langle prefix \rangle\} \{\langle first \rangle\} \{\langle last \rangle\} \{\langle suffix \rangle\}$

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

```
151 \@ifundefined{chapter}
152 {}% if no chapters
153 {% only of chapters exists in this documentclass:
154   \let\tocdatachapterprint\tocdatapartprint
155 }% end of chapters-only
```

`\tocdatasectionprint` $\{\langle prefix \rangle\} \{\langle first \rangle\} \{\langle last \rangle\} \{\langle suffix \rangle\}$

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

```
156 \let\tocdatasectionprint\tocdatapartprint
```

`\tocdatasubsectionprint` $\{\langle prefix \rangle\} \{\langle first \rangle\} \{\langle last \rangle\} \{\langle suffix \rangle\}$

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

```
157 \let\tocdatasubsectionprint\tocdatapartprint
```

```
\TD@artistauthorprint {<1: "artist" or "author">} {<2: prefix>} {<3: first>} {<4: last>} {<5: suffix>}
```

```
158 \newcommand{\TD@artistauthorprint}[5]{%
159   \begin{minipage}{\linewidth}%
160   \csuse{TD#1align}%
161   \footnotesize\normalfont%
162   \textsc{\TD@optionalname{#2}\TD@optionalname{#3}#4#5}%
163   \end{minipage}%
164   \par%
165   \addvspace{2ex}%
166 }
```

```
\tocdataartistprint {<prefix>} {<first>} {<last>} {<suffix>}
```

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

```
167 \newcommand{\tocdataartistprint}{%
168   \par\smallskip%
169   \TD@artistauthorprint{artist}%
170 }
```

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.

```
171 \newcommand{\tocdataauthorprint}{%
172   \par\smallskip%
173   \TD@artistauthorprint{author}%
174 }
```

```
\TD@artistauthortextprint {<"artist" or "author">} {<text>}
```

```
175 \newcommand{\TD@artistauthortextprint}[2]{%
176   \addvspace{2ex}%
177   \begin{minipage}{\linewidth}%
178   \csuse{TD#1textalign}%
179   \footnotesize\normalfont%
180   \setlength{\parskip}{1.5ex}%
181   \setlength{\parindent}{0em}%
182   #2%
```

```

183 \end{minipage}%
184 \par%
185 \addvspace{2ex}%
186 }

```

```
\tocdataartisttextprint {<text>}
```

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

```
187 \newcommand{\tocdataartisttextprint}{\TD@artistauthortextprint{artist}}
```

```
\tocdataauthortextprint {<text>}
```

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

```
188 \newcommand{\tocdataauthortextprint}{\TD@artistauthortextprint{author}}
```

4.6.2 Chapters and sections

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

```
189 \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:

```

190 \IfBooleanTF{#2}%
191 {% star:
192 \csuse{#1}*{#4\nopagebreak\csuse{tocdata#1print}{#5}{#6}{#7}{#8}}%
193 }%

```

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

```

194 {% no star:
195 \tocdata{toc}{#6 #7}%

```

Create the section depending on the optional name:

```

196 \IfValueTF{#3}%
197 {\csuse{#1}[#3]{#4\nopagebreak\csuse{tocdata#1print}{#5}{#6}{#7}{#8}}}%
198 {\csuse{#1}[#4]{#4\nopagebreak\csuse{tocdata#1print}{#5}{#6}{#7}{#8}}}%
199 }% no star

```

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

```

200 \ifblank{#6}%
201     {\index{#7}}%
202     {\index{#7, #6}}%
203 }

```

```
\partauthor * [\langle 2: TOC entry \rangle] {\langle 3: title \rangle} [\langle 4: prefix \rangle] {\langle 5: first \rangle} {\langle 6: last \rangle} [\langle 7: suffix \rangle]
```

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

```
\chapterauthor * [\langle 2: TOC entry \rangle] {\langle 3: title \rangle} [\langle 4: prefix \rangle] {\langle 5: first \rangle} {\langle 6: last \rangle} [\langle 7: suffix \rangle]
```

```
205 \ifundefined{chapter}
```

```
206 {}% if no chapters
```

```
207 {% only of chapters exists in this documentclass:
```

```
208     \newcommand*\chapterauthor{\TD@sectionauthor{chapter}}
```

```
209 }
```

```
\sectionauthor * [\langle 2: TOC entry \rangle] {\langle 3: title \rangle} [\langle 4: prefix \rangle] {\langle 5: first \rangle} {\langle 6: last \rangle} [\langle 7: suffix \rangle]
```

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

```
\subsectionauthor * [\langle 2: TOC entry \rangle] {\langle 3: title \rangle} [\langle 4: prefix \rangle] {\langle 5: first \rangle} {\langle 6: last \rangle} [\langle 7: suffix \rangle]
```

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

4.6.3 Figure artist name alignment

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

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

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

```
213 \newcommand{\tdartistjustify}{%
```

```
214     \renewcommand{\TD@artistalign}{%}
```

```
215 }
```

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

```
216 \newcommand{\tdartistcenter}{%
```

```
217     \renewcommand{\TD@artistalign}{\centering}%
```

```
218 }
```

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

```
219 \newcommand{\tdartistleft}{%
220   \renewcommand{\TD@artistalign}{\raggedright}%
221 }
```

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

```
222 \newcommand{\tdartistright}{%
223   \renewcommand{\TD@artistalign}{\raggedleft}%
224 }
```

4.6.4 Figure author name alignment

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

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

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

```
226 \newcommand{\tdauthorjustify}{%
227   \renewcommand{\TD@authoralign}{}%
228 }
```

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

```
229 \newcommand{\tdauthorcenter}{%
230   \renewcommand{\TD@authoralign}{\centering}%
231 }
```

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

```
232 \newcommand{\tdauthorleft}{%
233   \renewcommand{\TD@authoralign}{\raggedright}%
234 }
```

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

```
235 \newcommand{\tdauthorright}{%
236   \renewcommand{\TD@authoralign}{\raggedleft}%
237 }
```

4.6.5 Figure artist text alignment

- `\TD@artisttextalign` Sets text alignment in the optional text.
- ```
238 \newcommand{\TD@artisttextalign}{\centering}
```
- `\tdartisttextjustify` Sets justified text alignment in the optional text.
- ```
239 \newcommand{\tdartisttextjustify}{%
240   \renewcommand{\TD@artisttextalign}{}}%
241 }
```
- `\tdartisttextcenter` Sets centered text alignment in the optional text.
- ```
242 \newcommand{\tdartisttextcenter}{%
243 \renewcommand{\TD@artisttextalign}{\centering}}%
244 }
```
- `\tdartisttextleft` Sets left text alignment in the optional text.
- ```
245 \newcommand{\tdartisttextleft}{%
246   \renewcommand{\TD@artisttextalign}{\raggedright}}%
247 }
```
- `\tdartisttextright` Sets right text alignment in the optional text.
- ```
248 \newcommand{\tdartisttextright}{%
249 \renewcommand{\TD@artisttextalign}{\raggedleft}}%
250 }
```

#### 4.6.6 Figure author text alignment

- `\TD@authortextalign` Sets text alignment in the optional text.
- ```
251 \newcommand{\TD@authortextalign}{\centering}
```
- `\tdauthortextjustify` Sets justified text alignment in the optional text.
- ```
252 \newcommand{\tdauthortextjustify}{%
253 \renewcommand{\TD@authortextalign}{}}%
254 }
```

`\tdauthorcenter` Sets centered text alignment in the optional text.

```
255 \newcommand{\tdauthorcenter}{%
256 \renewcommand{\TD@authoralign}{\centering}%
257 }
```

`\tdauthorleft` Sets left text alignment in the optional text.


```
258 \newcommand{\tdauthorleft}{%
259 \renewcommand{\TD@authoralign}{\raggedright}%
260 }
```

`\tdauthorright` Sets right text alignment in the optional text.

```
261 \newcommand{\tdauthorright}{%
262 \renewcommand{\TD@authoralign}{\raggedleft}%
263 }
```

#### 4.6.7 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.

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

Print the artist's name next to the figure:

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

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



```

266 \ifblank{#5}%
267 {}%
268 {\par\csuse{tocdata#1textprint}{#5}}%

```

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

```

269 \unskip%

```

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

```

270 \IfBooleanTF{#2}%
271 {% starred
272 \IfValueTF{#3}{\caption*{#3}{#4}}{\caption*{#4}}%
273 }% starred
274 {% not starred

```

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

```

275 \tocdata{\csuse{ext@\@capttype}}{#7 #8}%

```

Create the caption depending on the optional name:

```

276 \IfValueTF{#3}{\caption[#3]{#4}}{\caption{#4}}%
277 }% not starred

```

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

```

278 \ifblank{#7}%
279 {\index{#8}}%
280 {\index{#8, #7}}%
281 }

```

```

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

```

```

282 \newcommand*\captionartist{\TD@captionartistauthor{artist}}

```

```

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

```

```

283 \newcommand*\captionauthor{\TD@captionartistauthor{author}}

```



KATSUSHIKA HOKUSAI

From the series *Uma Zukushi*.

Illustration 3: Lacquer Go Board

## Change History

|                                          |    |                                                                  |        |
|------------------------------------------|----|------------------------------------------------------------------|--------|
| v0.10                                    |    | \TD@captionartistauthor: Added                                   |        |
| General: 2016/05/05 Initial ver. . . . . | 1  | support for new float types. . . . .                             | 25     |
| v0.11                                    |    | Factored. . . . .                                                | 24     |
| General: 2016/07/11 . . . . .            | 1  | \TD@sectionauthor: Factored. . . . .                             | 20     |
| Minor docs improvements in               |    | Improved page breaks. . . . .                                    | 20     |
| spelling, grammar, formatting. . . . .   | 1  | \partauthor: Added. . . . .                                      | 21     |
| v0.12                                    |    | \subsectionauthor: Added. . . . .                                | 21     |
| \TD@artistauthor: Added                  |    | \tocdataartistprint: Added. . . . .                              | 19     |
| text alignment. . . . .                  | 19 | \tocdataauthorprint: Added. . . . .                              | 19     |
| Improved spacing. . . . .                | 19 | \tocdatachapterprint: Renamed                                    |        |
| \TD@captionartistauthor: Allows          |    | from \tocdatachapterprint. . . . .                               | 18     |
| paragraphs in add'l text. . . . .        | 24 | \tocdatapartprint: Added. . . . .                                | 18     |
| Expands first name before index          |    | \tocdatasectionprint: Renamed                                    |        |
| check. . . . .                           | 24 | from \tocdatasectionprint. . . . .                               | 18     |
| \TD@sectionauthor: Expands first         |    | \tocdatasubsectionprint: Added. . . . .                          | 18     |
| name before index check. . . . .         | 20 | General: 2019/03/15 . . . . .                                    | 1      |
| \tdartistjustify: etc. Added name        |    | Added caption authors. . . . .                                   | 1      |
| alignment. . . . .                       | 21 | Added part and subsection macros. . . . .                        | 1      |
| \tdartisttextjustify: etc. Added         |    | Added support for new float types. . . . .                       | 1      |
| text alignment. . . . .                  | 23 | Adds support for default L <sup>A</sup> T <sub>E</sub> X toc     |        |
| \tdauthorjustify: etc. Added name        |    | formatting, without using                                        |        |
| alignment. . . . .                       | 22 | titletoc or tocloft. . . . .                                     | 13     |
| \tdauthortextjustify: etc. Added         |    | Improved patches for titletoc. . . . .                           | 15     |
| text alignment. . . . .                  | 23 | Improved patches for tocloft. . . . .                            | 15     |
| \tocdataartistprint: Added name          |    | Patches \AtBeginDocument. . . . .                                | 14, 15 |
| alignment. . . . .                       | 19 | Replaced \tdnameX with                                           |        |
| Improved spacing. . . . .                | 19 | \tdauthorX and \tdartistX. . . . .                               | 21     |
| \tocdatapartprint: Improved              |    | Test for both titletoc and tocloft. . . . .                      | 12     |
| spacing. . . . .                         | 18 | Test for early titletoc or tocloft. . . . .                      | 11     |
| General: 2016/12/02 . . . . .            | 1  | v2.01                                                            |        |
| Added requirement for xifthen. . . . .   | 11 | \l@section: Fix for L <sup>A</sup> T <sub>E</sub> X core section |        |
| v1.00                                    |    | toc entry. . . . .                                               | 14     |
| General: 2019/01/12 . . . . .            | 1  | General: 2019/03/15 . . . . .                                    | 1      |
| Improved source formatting. . . . .      | 1  | v2.02                                                            |        |
| Remove xifthen dependency. . . . .       | 11 | \TD@sectionauthor: Fix for                                       |        |
| v2.00                                    |    | sectioning name formatting. . . . .                              | 20     |
| \TD@artistauthorprint: Improved          |    | \tocdataartistprint: Improved                                    |        |
| font control. . . . .                    | 19 | spacing. . . . .                                                 | 19     |
| \TD@artistauthor: Added                  |    | \tocdataauthorprint: Improved                                    |        |
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| Replaced \tocdatafigtextprint            |    | General: 2019/03/21 . . . . .                                    | 1      |
| with \tocdataartisttextprint             |    | Docs: Fix macro names. . . . .                                   | 9      |
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*“Now this is not the end. It is not even the beginning of the end. But it is, perhaps, the end of the beginning.”*

SIR WINSTON LEONARD SPENCER CHURCHILL

(Full name used for demonstration purposes.)

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



GREEK ALPHABET

Figure 6: Omega