

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 L^AT_EX classes, memoir, koma-script, and with titletoc, tocloft, tocbasic, and tocstyle.

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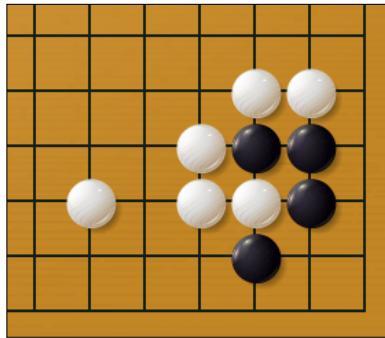
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HAYASHI GENBI

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 holderQuotation 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.

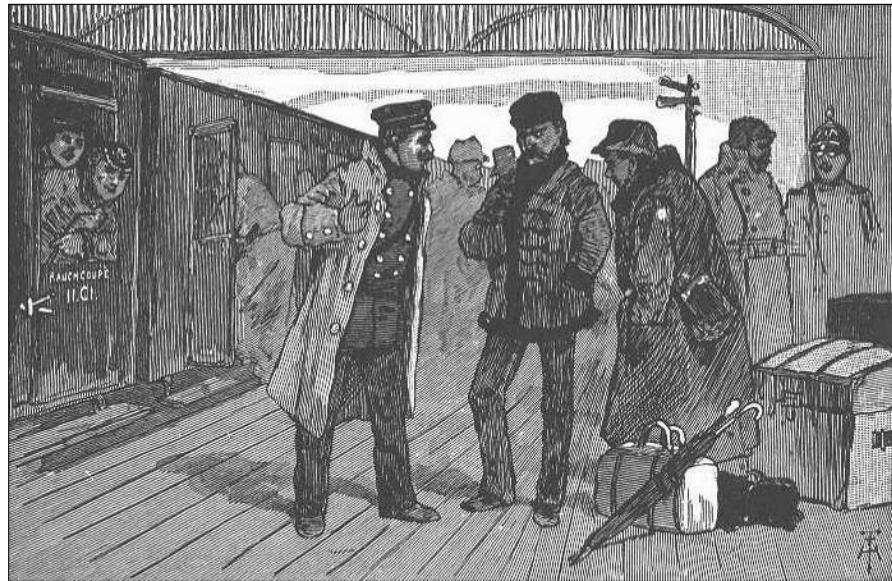
Many commonly-recommended methods for doing this with L^AT_EX, such as those linked to in section 2, place the author above or below the title and page number, but seldom on the same line.

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

¹Yes, 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*

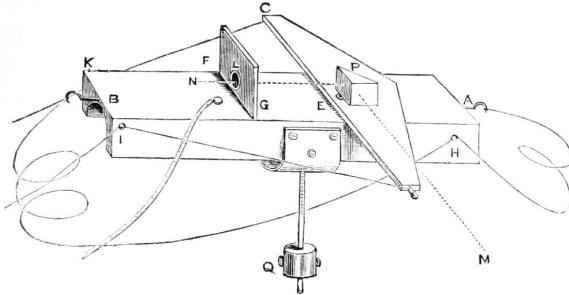
For other methods which place the author on a separate line from the title, see the following.

⚠ **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

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

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 {\langle text\rangle}
```

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

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

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

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

3.2.2 Adding TOC data per section

```
\tocdata {\langle list extension\rangle} {\langle text\rangle}
```

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

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

\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.

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*	If you are using the <code>caption</code> 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.
\captionauthor*	

⚠ Optional arguments

⚠️ 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

<code>\tocdatapartprint</code>	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 21.
<code>\tocdatachapterprint</code>	
<code>\tocdatasectionprint</code>	
<code>\tocdatasubsectionprint</code>	<code>\tocdatachapterprint</code> and <code>\tocdatasectionprint</code> by default depend on <code>\tocdatapartprint</code> , so if it is redefined the others will have to be redefined as well.
⚠️ redefining	
<code>\tocdataartistprint</code>	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.
<code>\tocdataartisttextprint</code>	
<code>\tocdataauthorprint</code>	
<code>\tocdataauthortextprint</code>	

3.3.4 Text justification

<code>\tdartistjustify</code>	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.
<code>\tdartistcenter</code>	
<code>\tdartistleft</code>	
<code>\tdartistright</code>	
<code>\tdartissttextjustify</code>	
<code>\tdartissttextcenter</code>	
<code>\tdartissttextleft</code>	
<code>\tdartissttextright</code>	
<code>\tdauthorjustify</code>	
<code>\tdauthorcenter</code>	
<code>\tdauthorleft</code>	
<code>\tdauthorright</code>	
<code>\tdauthortextjustify</code>	
<code>\tdauthortextcenter</code>	
<code>\tdauthortextleft</code>	
<code>\tdauthortextright</code>	

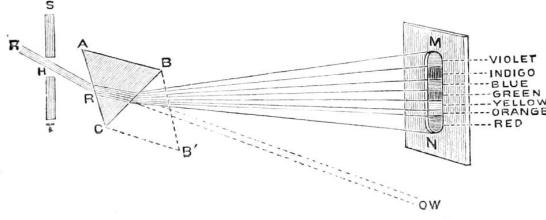


ALEXANDER POPE

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 L^AT_EX 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 L^AT_EX 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 redefine **\tocdataformat** for newer documents.

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

\tocdataformat {*text*}

Controls the font and formatting for the toc data:

```
\renewcommand{\tocdataformat}[1]{\textrit{#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 L^AT_EX patches

\TD@patchstandarddatex Patches standard L^AT_EX TOC formatting.

```
67 \newcommand*{\TD@patchstandarddatex}{
```

\@dottedtocline Patched for tocdata.

```
68 \xpatchcmd{\@dottedtocline}{\hfill\nobreak}{\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}{\hfil}{\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}{\hfil\nobreak}{\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 }%
```



GREEK ALPHABET

Figure 4: Pi

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     }%
112 }{}%
```

113 }% TD@patchstandardlatex

Patch standard L^AT_EX if not using l_{warp}, or if l_{warp} 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 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.

```

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     \expandafter\xpatchcmd\csname l@#1\endcsname
128         {\contentspage}
129         {\TD@usetocdata\contentspage}
130         {}
131         {}
132 }
133
134 \TD@titletoc@patch{part}
135 \@ifundefined{chapter}{}{\TD@titletoc@patch{chapter}}
136 \TD@titletoc@patch{section}
137 \TD@titletoc@patch{subsection}
138 \TD@titletoc@patch{subsubsection}
139 \TD@titletoc@patch{paragraph}
140 \TD@titletoc@patch{subparagraph}
141 \TD@titletoc@patch{figure}
142 \TD@titletoc@patch{table}
143 }% end of titletoc loaded
144 {% titletoc is not loaded
145 }% end of \@ifpackageloaded{titletoc}
146 }% 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.

```

147 \AtBeginDocument{
148 \@ifclassloaded{memoir}
149 {
150 \appto{\cftpartleader}{\TD@usetocdata}
151 \appto{\cftchapterleader}{\TD@usetocdata}
152 \appto{\cftsectionleader}{\TD@usetocdata}
153 \appto{\cftsubsectionleader}{\TD@usetocdata}
154 \appto{\cftsubsubsectionleader}{\TD@usetocdata}
155 \appto{\cftparagraphleader}{\TD@usetocdata}
156 \appto{\cft subparagraphleader}{\TD@usetocdata}
157 \appto{\cftfigureleader}{\TD@usetocdata}

```

```

158 \appto{\cfttableleader}{\TD@usetocdata}
159 \appto{\cftsubfigureleader}{\TD@usetocdata}
160 \appto{\cftsubtableleader}{\TD@usetocdata}
161 }% memoir
162 {% not memoir
163 \@ifpackageloaded{tocloft}
164 {

\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.

165 \appto{\cftpartleader}{\TD@usetocdata}
166 \if@cfthaschapter
167     \appto{\cftchapleader}{\TD@usetocdata}
168 \fi
169 \appto{\cftsecleader}{\TD@usetocdata}
170 \appto{\cftsubsecleader}{\TD@usetocdata}
171 \appto{\cftsubsubsecleader}{\TD@usetocdata}
172 \appto{\cftparaleader}{\TD@usetocdata}
173 \appto{\cftsubparaleader}{\TD@usetocdata}
174 \appto{\cftfigleader}{\TD@usetocdata}
175 \appto{\cfttableleader}{\TD@usetocdata}
176 \appto{\cftsubfigleader}{\TD@usetocdata}
177 \appto{\cftsubtableleader}{\TD@usetocdata}

178 }% end of tocloft patches
179 {}% tocloft not loaded
180 }% not memoir
181 }% \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:

```

182 \AtBeginDocument{
183
184 \@ifpackageloaded{tocbasic}{

185 \renewcommand*\scr@dte@tocline}[3]{%
186     \ifnum \nameuse{#1tocdepth}>\c@tocdepth
187     \else
188         \tocbasic@DependOnPenaltyAndTOCLevel{#1}%
189         \addvspace{\nameuse{scr@tso@#1@beforeskip}}\relax
190     {%
191         \leftskip \nameuse{scr@tso@#1@indent}\relax
192         \rightskip \nameuse{scr@tso@#1@rightskip}\relax
193     }%
194 }
195 }
```

```
193 \parfillskip -\rightskip
194 \@nameuse{Ifscr@tso@#1@raggedpage}{%
195     \addtolength{\parfillskip}{\z@ \@plus 1fil}%
196 }{%
197 \parindent \atnameuse{scr@tso@#1@indent}\relax
198 \afterindenttrue
199 \interlinepenalty\@M
200 \expandafter\ifx\csname ragged#1entry\endcsname\raggedright
201     \addtolength\rightskip\@flushglue
202 \else
203     \def\reserved@a{\raggedright}%
204     \expandafter\ifx\csname ragged#1entry\endcsname\reserved@a
205         \addtolength\rightskip\@flushglue
206     \else
207         \renewcommand\reserved@a{\raggedright}%
208         \expandafter\ifx\csname ragged#1entry\endcsname\reserved@a
209             \addtolength\rightskip\@flushglue
210         \fi
211     \fi
212 \fi
213 \leavevmode
214 \@tempdima \atnameuse{scr@tso@#1@numwidth}\relax
215 \@nameuse{Ifscr@tso@#1@dynnumwidth}{%
216     \scr@ifundefinedorrelax{scr@dte@#1@lastmaxnumwidth}{}{%
217         \ifdim \atnameuse{scr@dte@#1@lastmaxnumwidth}>\@tempdima
218             \attempdima\atnameuse{scr@dte@#1@lastmaxnumwidth}\relax
219         \fi
220     }%
221 }{%
222 \advance\leftskip \attempdima
223 \null\nobreak\hskip -\leftskip
224 }{%
225     \usetocbasicnumberline
226     \let\scr@dte@numberline@box\numberline@box
227     \def\numberline@box##1{%
228         \sbox\scr@dte@tocline@numbox{\atnameuse{scr@tso@#1@numberformat}{##1}}%
229         \global\scr@dte@tocline@numberwidth
230         \dimexpr\wd\scr@dte@tocline@numbox+\atnameuse{scr@tso@#1@numsep}\relax
231         \relax
232         \ifdim \scr@dte@tocline@numberwidth
233             >\atnameuse{scr@dte@#1@maxnumwidth}\relax
234             \global\atnameuse{scr@dte@#1@maxnumwidth}\scr@dte@tocline@numberwidth
235         \fi
236     }{%
237         \atnameuse{Ifscr@tso@#1@dynnumwidth}{}{%
238             \ifdim \scr@dte@tocline@numberwidth
239                 >\dimexpr \atnameuse{scr@tso@#1@numwidth}%
240                     +\atnameuse{scr@tso@#1@numsep}\relax\relax
241             \PackageWarning{tocbasic}%
242         }{%
243             number width of #1 toc entries should be
```

```

243     increased! \MessageBreak
244     Currently used number width =
245     \the\wd\scr@dte@tocline@numbox, \MessageBreak
246     Wanted number separation
247     \space\space\space =
248     \the\dimexpr\@nameuse{scr@tso@#1@numsep}\relax, \MessageBreak
249     Reserved number width \space\space\space\space\space\space =
250     \the\dimexpr\@nameuse{scr@tso@#1@numwidth}\relax%
251     }%
252     \fi
253   }%
254   \scr@dte@numberline@box{\@nameuse{scr@tso@#1@numberformat}{##1}}%
255   \@nameuse{Ifscr@tso@#1@breakafternumber}{%
256     {\parfillskip\@flushglue\par}\nobreak\hskip-\leftskip
257   }{}%
258 }%
259 \@nameuse{scr@tso@#1@entryformat}{%
260   #2%
261   \nobreak
262   {%
263     \normalfont\normalsize\@nameuse{scr@tso@#1@linefill}%
264     \TD@usetocdata%    l warp
265     \nobreak
266     \@nameuse{scr@tso@#1@pagenumberbox}{%
267       \@nameuse{scr@tso@#1@pagenumberformat}{#3}%
268     }%
269   }%
270   \par
271 }%
272 }%
273 }%
274 \tocbasic@SetPenaltyByTOCLevel{#1}%
275 \fi
276 }
277
278 }{}%
279 }

```

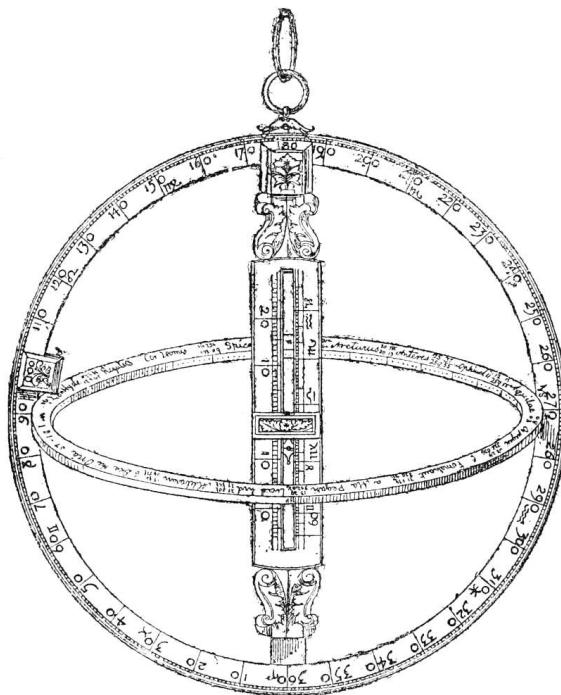
4.7 tocstyle support

```

280 \AtBeginDocument{
281 \@ifpackageloaded{tocstyle}{
282 \xpatchcmd\tocstyle@dottedtocline
283   {%
284     \ifx\tocstyle@feature@leaders\relax
285       \leaders\hbox{$\m@th
286         \mkern \dotsep mu\hbox{\tocstyle@feature@dothook .}%

```

```
287         \mkern \@dotsep mu\$}\hfill
288     \else
289         \tocstyle@feature@leaders
290         \fi%
291     }
292 {%
293     \ifx\tocstyle@feature@leaders\relax
294         \leaders\hbox{$\m@th
295             \mkern \@dotsep mu\hbox{\tocstyle@feature@dothook .}%
296             \mkern \@dotsep mu\$}\hfill
297     \else
298         \tocstyle@feature@leaders
299         \fi%
300         \TD@usetocdata%
301     }
302 { }%
303 { %
304     \PackageWarning{tocdata}{%
305         Could not patch \tocstyle \protect\tocstyle@dottedtocline.\MessageBreak
306         Authors may not appear in TOC, LOF}
307     }%
308 }{ }
309 }
```



SIR ISAAC NEWTON

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

```
\TDooptionalnameprint {\langle name\rangle}
```

Adds optional artist's name and the following space.

```
310 \newcommand{\TOptionalnameprint}[1]{%
311 {%
312     \ifblank{#1}{%
313         {}%
314         {\#1~}%
315     }%
```

```
\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.

```
316 \newcommand{\tocdatapartprint}[4]{%
317 {%
318     \par\noindent%
319     {%
320         \normalfont\normalsize%
321         \textit{%
322             \hspace*{4em}--- %
323             \TOptionalnameprint{\#1}\TOptionalnameprint{\#2}\#3\#4%
324         }%
325     }%
326 }
```

```
\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.

```
327 \@ifundefined{chapter}{%
328 { }% if no chapters
329 { }% only of chapters exists in this documentclass:
330     \let\tocdatachapterprint\tocdatapartprint
331 }% 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.

```
332 \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.

```
333 \let\tocdatasubsectionprint\tocdatapartprint
```

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

334 \newcommand{\TDartistaauthorprint}[5]{%
335   \begin{minipage}{\linewidth}%
336     \csuse{TD@#1align}%
337     \footnotesize\normalfont%
338     \textsc{\TDoptionalnameprint{#2}\TDooptionalnameprint{#3}#4#5}}%
339   \end{minipage}%
340   \par%
341   \addvspace{2ex}%
342 }
```

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

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

```
343 \newcommand{\tocdataartistprint}{%
344   \par\smallskip%
345   \TDartistaauthorprint{artist}%
346 }
```

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.

```
347 \newcommand{\tocdataauthorprint}{%
348   \par\smallskip%
349   \TDartistaauthorprint{author}%
350 }
```

```
\TDartistaauthortextprint {⟨"artist" or "author"⟩} {⟨text⟩}
```

```
351 \newcommand{\TDartistaauthortextprint}[2]{%
352   \addvspace{2ex}%
353   \begin{minipage}{\linewidth}%
354     \csuse{TD@#1textalign}%
355     \footnotesize\normalfont%
356     \setlength{\parskip}{1.5ex}%
357     \setlength{\parindent}{0em}%
358     #2%
359   \end{minipage}%
360   \par%
```

```
361     \addvspace{2ex}%
362 }
```

\tocdataartisttextprint {⟨text⟩}

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

```
363 \newcommand{\tocdataartisttextprint}{\TArtistaauthortextprint{artist}}
```

\tocdataauthortextprint {⟨text⟩}

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

```
364 \newcommand{\tocdataauthortextprint}{\TArtistaauthortextprint{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⟩}

```
365 \@ifclassloaded{article}%
366 {
367     \newcommand*{\TD@starredsectionauthorprint}[5]{%
368         \unskip\medskip\csuse{tocdata#1print}{#2}{#3}{#4}{#5}\par%
369         \bigskip%
370     }
371 }
372 {
373     \newcommand*{\TD@starredsectionauthorprint}[5]{%
374         \ifstreq{\#1}{part}%
375         {%
376             \PackageWarning{tocdata}{%
377                 The author's name will not be printed for\MessageBreak
378                 the starred \protect\part%
379             }%
380         }%
381         {%
382             \unskip\medskip\csuse{tocdata#1print}{#2}{#3}{#4}{#5}\par%
383             \bigskip%
384         }%
385     }
386 }
```

```

384      }%
385    }
386 }

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

387 \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:

```

388   \IfBooleanTF{\#2}{%
389     {%
390       \csuse{\#1}{\#4}{%
391         \TD@starredsectionauthorprint{\#1}{\#5}{\#6}{\#7}{\#8}}%
392     }%

```

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

```

393   {%
394     \tocdata{toc}{\#6 \#7}%

```

Create the section depending on the optional name:

```

395   \IfValueTF{\#3}{%
396     {\csuse{\#1}{\#3}{\#4}{\noagebreak\csuse{tocdata\#1print}{\#5}{\#6}{\#7}{\#8}}{%
397       {\csuse{\#1}{\#4}{\#4}{\noagebreak\csuse{tocdata\#1print}{\#5}{\#6}{\#7}{\#8}}{%
398         }% no star

```

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

```

399   \ifblank{\#6}{%
400     {\index{\#7}}%
401     {\index{\#7, \#6}}%
402   }%

```

```
\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]
```

```
403 \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]
```

```

404 \@ifundefined{chapter}{%
405   {}% if no chapters
406   {% only of chapters exists in this documentclass:
407     \newcommand*{\chapterauthor}{\TD@sectionauthor{chapter}}%
408   }%

```

```
\sectionauthor * [<2: toc entry>] {<3: title>} [<4: prefix>] {<5: first>} {<6: last>} [<7: suffix>]
409 \newcommand{\sectionauthor}{\TD@sectionauthor{section}}
\subsectionauthor * [<2: toc entry>] {<3: title>} [<4: prefix>] {<5: first>} {<6: last>} [<7: suffix>]
410 \newcommand{\subsectionauthor}{\TD@sectionauthor{subsection}}
```

4.8.3 Figure artist name alignment

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

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

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

```
412 \newcommand{\tdartistjustify}{%
413     \renewcommand{\TD@artistalign}{}%
414 }
```

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

```
415 \newcommand{\tdartistcenter}{%
416     \renewcommand{\TD@artistalign}{\centering}%
417 }
```

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

```
418 \newcommand{\tdartistleft}{%
419     \renewcommand{\TD@artistalign}{\raggedright}%
420 }
```

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

```
421 \newcommand{\tdartistright}{%
422     \renewcommand{\TD@artistalign}{\raggedleft}%
423 }
```

4.8.4 Figure author name alignment

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

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

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

```
425 \newcommand{\tdauthorjustify}{%
426     \renewcommand{\TD@authoralign}{}%
427 }
```

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

```
428 \newcommand{\tdauthorcenter}{%
429     \renewcommand{\TD@authoralign}{\centering}%
430 }
```

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

```
431 \newcommand{\tdauthorleft}{%
432     \renewcommand{\TD@authoralign}{\raggedright}%
433 }
```

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

```
434 \newcommand{\tdauthorright}{%
435     \renewcommand{\TD@authoralign}{\raggedleft}%
436 }
```

4.8.5 Figure artist text alignment

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

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

\tdartisttextjustify Sets justified text alignment in the optional text.

```
438 \newcommand{\tdartisttextjustify}{%
439     \renewcommand{\TD@artisttextalign}{}%
440 }
```

\tdartisttextcenter Sets centered text alignment in the optional text.

```
441 \newcommand{\tdartisttextcenter}{%
442     \renewcommand{\TD@artisttextalign}{\centering}%
443 }
```

\tdartisttextleft Sets left text alignment in the optional text.

```
444 \newcommand{\tdartisttextleft}{%
445     \renewcommand{\TD@artisttextalign}{\raggedright}%
446 }
```

\tdartisttextright Sets right text alignment in the optional text.

```
447 \newcommand{\tdartisttextright}{%
448     \renewcommand{\TD@artisttextalign}{\raggedleft}%
449 }
```

4.8.6 Figure author text alignment

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

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

\tdauthortextjustify Sets justified text alignment in the optional text.

```
451 \newcommand{\tdauthortextjustify}{%
452     \renewcommand{\TD@authortextalign}{\centering}%
453 }
```

\tdauthortextcenter Sets centered text alignment in the optional text.

```
454 \newcommand{\tdauthortextcenter}{%
455     \renewcommand{\TD@authortextalign}{\centering}%
456 }
```

\tdauthortextleft Sets left text alignment in the optional text.

```
457 \newcommand{\tdauthortextleft}{%
458     \renewcommand{\TD@authortextalign}{\raggedright}%
459 }
```

\tdauthortextright Sets right text alignment in the optional text.

```
460 \newcommand{\tdauthortextright}{%
461     \renewcommand{\TD@authortextalign}{\raggedleft}%
462 }
```

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@captionartistaauthor {\langle 1: "artist" or "author" \rangle * [\langle 3: LOF entry \rangle] {\langle 4: title \rangle} [\langle 5: supplemental text \rangle] [\langle 6: prefix \rangle] {\langle 7: first \rangle} {\langle 8: last \rangle} [\langle 9: suffix \rangle]}
```

Factored from `\captionartist` and `\captionauthor`, below.

```
463 \NewDocumentCommand{\TD@captionartistaauthor}{m s o m +o{} o{} m m o{} }{%
```

Print the artist's name next to the figure:

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

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

```
465 \ifblank{#5}{%  
466 {}%  
467 {\par\csuse{tocdata#1textprint}{#5}}%
```

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

```
468 \unskip%
```

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

```
469 \IfBooleanTF{#2}{%  
470   {}% starred  
471   \IfValueTF{#3}{\caption*[#3]{#4}}{\caption*[#4]}%  
472   {}% starred  
473   {}% not starred
```

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

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

Create the caption depending on the optional name:

```
475      \IfValueTF{#3}{\caption[#3]{#4}}{\caption{#4}}%  
476      }% not starred
```

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

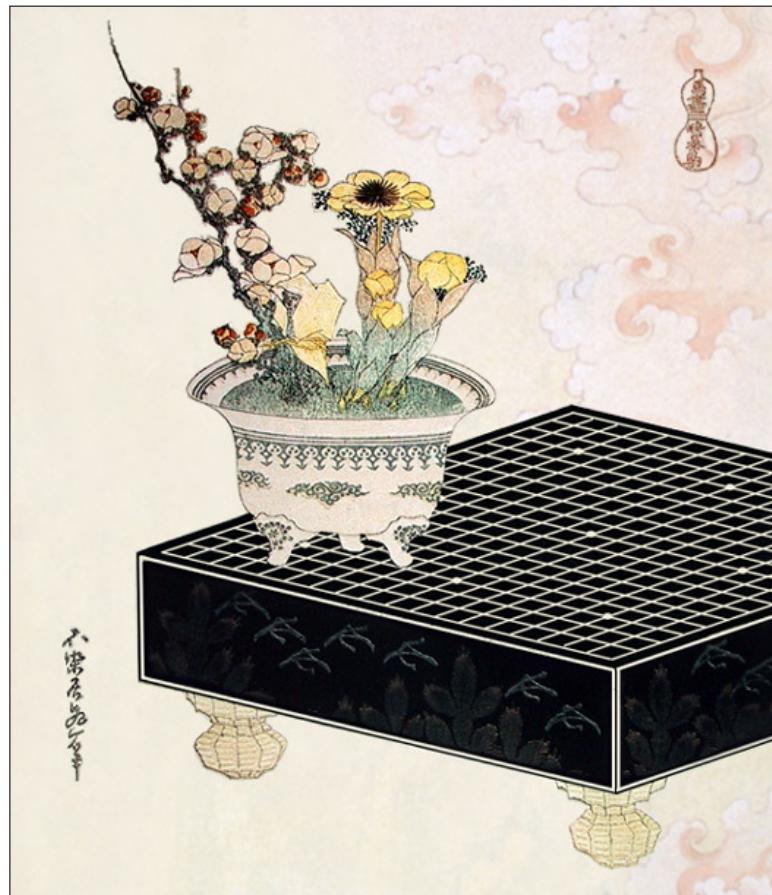
```
477      \ifblank{#7}{%  
478          {\index{#8}}%  
479          {\index{#8, #7}}%  
480 }
```

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

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

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

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



KATSUSHIKA HOKUSAI

From the series *Uma Zukushi*.

Illustration 3: Lacquer Go Board

Change History

v0.10	
General: 2016/05/05 Initial ver.	1
v0.11	
General: 2016/07/11	1
Minor docs improvements in spelling, grammar, formatting.	1
v0.12	
\TD@captionartistaauthor: Allows paragraphs in add'l text.	29
Expands first name before index check.	29
\TD@sectionauthor: Expands first name before index check.	25
\TDArtistaauthortextprint: Added text alignment.	23
Improved spacing.	23
\tdartistjustify: etc. Added name alignment.	26
\tdartisttextjustify: etc. Added text alignment.	27
\tdauthorjustify: etc. Added name alignment.	27
\tdauthortextjustify: etc. Added text alignment.	28
\tocdataartistprint: Added name alignment.	23
Improved spacing.	23
\tocdatapartprint: Improved spacing.	22
General: 2016/12/02	1
Added requirement for xifthen.	11
v1.00	
General: 2019/01/12	1
Improved source formatting.	1
Remove xifthen dependency.	11
v2.00	
\TD@captionartistaauthor: Added support for new float types.	29
Factored.	29
\TD@sectionauthor: Factored.	25
Improved page breaks.	25
\TDArtistaauthortextprint: Improved font control.	23
\TDArtistaauthortextprint:	
Improved font control.	23
	Replaced \tocdatafigtextprint with \tocdataartisttextprint and \tocdataauthortextprint.
	\partauthor: Added.
	\subsectionauthor: Added.
	\tocdataartistprint: Added.
	\tocdataauthorprint: Added.
	\tocdatachapterprint: Renamed from \tocdatachapprint.
	\tocdatapartprint: Added.
	\tocdatasectionprint: Renamed from \tocdasecprint.
	\tocdatasubsectionprint: Added.
	General: 2019/03/15
	Added caption authors.
	Added part and subsection macros.
	Added support for new float types.
	Adds support for default LATEX TOC formatting, without using titletoc or tocloft.
	Improved patches for titletoc.
	Improved patches for tocloft.
	Patches \AtBeginDocument.
	Replaced \tdnameX with \tdauthorX and \tdartistX.
	Test for both titletoc and tocloft.
	Test for early titletoc or tocloft.
v2.01	
\l@section: Fix for LATEX core section TOC entry.	15
General: 2019/03/15	1
v2.02	
\TD@sectionauthor: Fix: Sectioning name formatting.	25
\tocdataartistprint: Improved spacing.	23
\tocdataauthorprint: Improved spacing.	23
General: 2019/03/21	1
Docs: Fix macro names.	9
v2.03	
\TD@sectionauthor: Fix: Starred sectioning name formatting and labels.	25

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changed from	
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\TDooptionalnameprint: Name	
changed from	
\TDooptionalnameprint.	22
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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