The tocdata package

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© 2016–2024 Brian Dunn
https://github.com/bdtc/tocdata

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

1 Introduction *Brian Dunn* **4**

2 Other methods *Various Authors* **5**

3 How to use tocdata *Brian Dunn* **6**
3.1 Basic setup . . . 6
3.1.1 Preamble . . . 6
3.2 Mid-level applications . . . 7
3.2.1 Font control in the TOC / LOF . . . 7
3.2.2 Adding TOC data per section . . . 7
3.2.3 Adding LOF data per figure . . . 7
3.3 High-level user macros . . . 7
3.3.1 Sectioning commands with authors . . . 8
3.3.2 Figure captions with author / artist names and additional text . . . 8
3.3.3 Formatting in sections and figures . . . 8
3.3.4 Text justification . . . 9

4 Code *Brian Dunn* **10**
4.1 Requirements . . . 10
4.2 tocdata code . . . 11
4.3 Standard LaTeX patches . . . 12
4.4 titletoc support . . . 14
4.5 tocloft and memoir support . . . 15
4.6 Koma-script tocbasic support . . . 16
4.7 tocstyle support . . . 16
4.8 User-level macros . . . 18
4.8.1 User customization . . . 18
4.8.2 Chapters and sections . . . 21
4.8.3 Figure artist name alignment . . . 22
4.8.4 Figure author name alignment . . . 23
4.8.5 Figure artist text alignment . . . 24
4.8.6 Figure author text alignment . . . 24
4.8.7 Figure captions with artists and authors . . . 25

A Change History **28**

B Index *makeindex* **29**

List of Figures

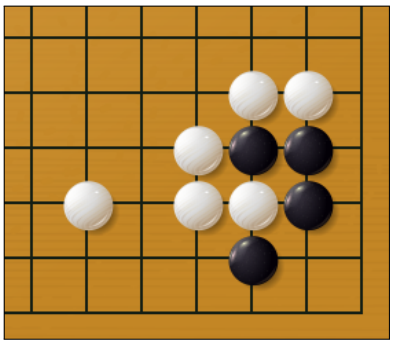
1 A Challenge . . . *Hayashi Genbi* 4
2 Astronometer . . . *John Herschel* 6
3 Diagram of a Sunbeam . . . *Isaac Newton* 10
4 Pi . . . *Greek Alphabet* 14
5 Sir Isaac Newton's Astrolabe . . . *Isaac Newton* 18
6 Omega . . . *Greek Alphabet* 31

List of Illustrations

1 The Crazy Engineer . . . . . *H. F Farny* 5
2 Quail . . . . . *Alexander Pope* 9
3 Lacquer Go Board . . . . . *Katsushika Hokusai* 27

List of Quotations

1 *Go uses the most elemental materials and concepts . . .* . . *Iwamoto Kaoru* 4
2 *Now this is not the end . . .* . . . . . *Winston Leonard Spencer Churchill* 31



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.

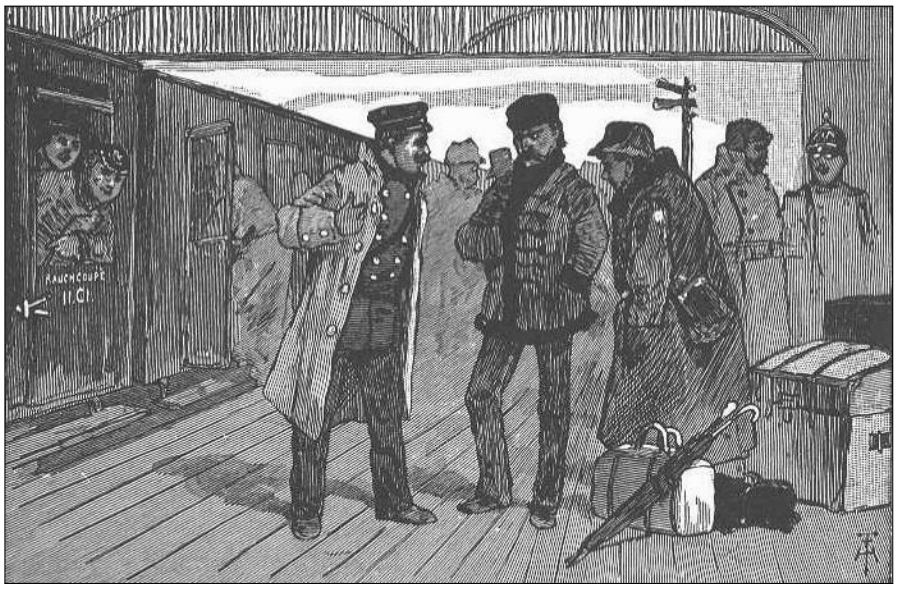
Many commonly-recommended methods for doing this with LaTeX, such as those linked to in section 2, place the author above or below the title and page number, but seldom on the same line.

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.

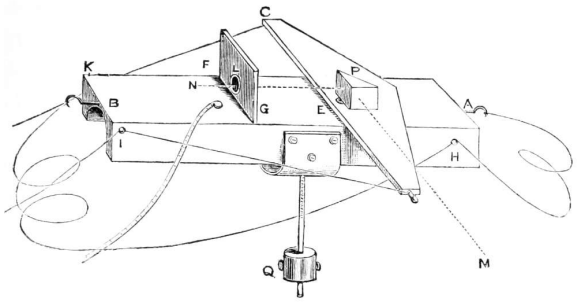
⚠ Too much text!

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.

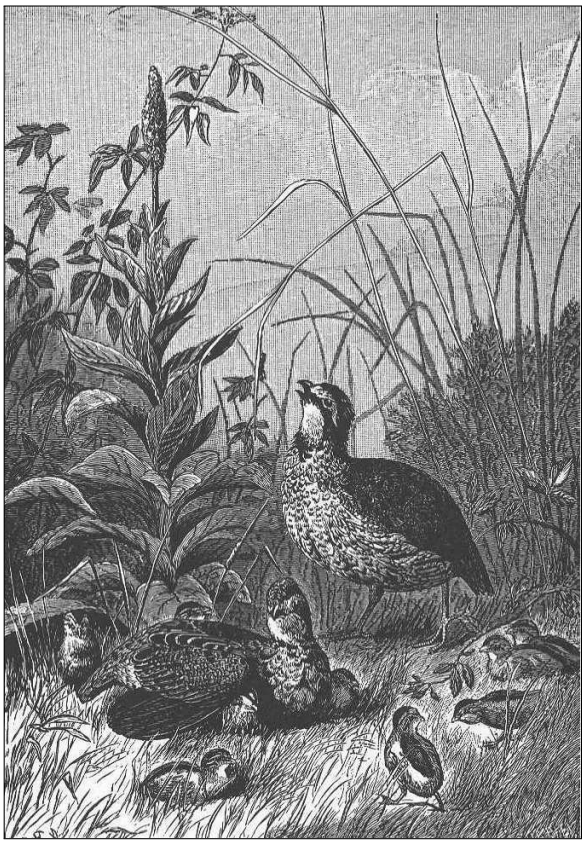
`\tocdataartistprint`
`\tocdataartisttextprint`
`\tocdataauthorprint`
`\tocdataauthortextprint`

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.

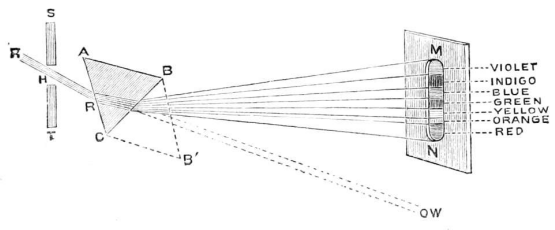


Alexander Pope

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

```
\RequirePackage{xparse}
\RequirePackage{etoolbox}
\RequirePackage{xpatch}
```

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

```
\@ifpackageloaded{titletoc}{
    \PackageError{tocdata}
        {%
            Load titletoc after tocdata%
        }
        {%
        Move \protect\usepackage{titletoc} after \protect\usepackage{tocdata}.%
        }
}{}

\@ifclassloaded{memoir}
{}% memoir
{% not memoir

```

```
\@ifpackageloaded{tocloft}{
    \PackageError{tocdata}
        {%
            Load tocloft after tocdata%
        }
        {%
        Move \protect\usepackage{tocloft} after \protect\usepackage{tocdata}.%
        }
}{}

}% not memoir
```

Prevent the use of both titletoc and tocloft.

```
\AtBeginDocument{
\@ifpackageloaded{titletoc}{
    \@ifpackageloaded{tocloft}{
        \PackageError{tocdata}
            {%
                Both titletoc and tocloft are being used.\MessageBreak
                Load only one%
            }
            {%
           The tocdata package may use the default LaTeX formatting,\MessageBreak
                or either one of titletoc or tocloft.
            }
    }{}
}{}
}
```

4.2 tocdata code

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

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

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

```
\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:

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

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

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

`\tocdataformat` `{`⟨*text*⟩`}`

Controls the font and formatting for the TOC data:

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

```
\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.

```
\newcommand{\TD@usetocdata}{%
    \ifdefvoid{\TD@thistocdata}{}{%
        \tocdataformat{\TD@thistocdata}%
        \global\def\TD@thistocdata{}%
    }%
}
```

`\TD@checktocdatafont` `{`⟨*text*⟩`}`

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

```
\let\TD@checktocdatafont\tocdatafont

\AtBeginDocument{
\ifdefequal\TD@checktocdatafont\tocdatafont{}{
    \PackageWarningNoLine{tocdata}{%
        You have redefined \protect\tocdatafont,\MessageBreak
        which has been deprecated.  Please redefine\MessageBreak
        \protect\tocdataformat\space instead}
}
}
```

4.3 Standard LaTeX patches

`\TD@patchstandardlatex` Patches standard LaTeX TOC formatting.

```
\newcommand*{\TD@patchstandardlatex}{
```

`\@dottedtocline` Patched for tocdata.

```
\xpatchcmd{\@dottedtocline}
```

```
    {\hfill\nobreak}
    {\hfill\TD@usetocdata\nobreak}
    {}%
    {%
        \PackageWarningNoLine{tocdata}{%
            Could not patch LaTeX core \protect\@dottedtocline.\MessageBreak
            Authors may not appear in TOC, LOF}
    }%
```

`\l@part` Patched for tocdata.

```
\@ifclassloaded{memoir}{}{%
\@ifpackageloaded{tocbasic}{}{%
\xpatchcmd{\l@part}
    {\hfil}
    {\hfil\TD@usetocdata}
    {}%
    {%
        \PackageWarningNoLine{tocdata}{%
            Could not patch LaTeX core \protect\l@part.\MessageBreak
            Authors may not appear in TOC parts}
    }%
}}
```

`\l@chapter` Patched for tocdata.

```
\@ifclassloaded{memoir}{}{%
\@ifpackageloaded{tocbasic}{}{%
\@ifundefined{chapter}{}{%
\xpatchcmd{\l@chapter}
    {\hfil\nobreak}
    {\hfil\TD@usetocdata\nobreak}
    {}%
    {%
        \PackageWarningNoLine{tocdata}{%
            Could not patch LaTeX core \protect\l@chapter.\MessageBreak
            Authors may not appear in TOC chapters}
    }%
}}}
```

`\l@section` Patched for tocdata.

```
\@ifclassloaded{article}{
\xpatchcmd{\l@section}
    {\hfil\nobreak}
    {\hfil\TD@usetocdata\nobreak}
    {}%
    {%
        \PackageWarningNoLine{tocdata}{%
            Could not patch LaTeX core \protect\l@section.\MessageBreak
            Authors may not appear in TOC sections}
    }%
```

Greek Alphabet

Figure 4: Pi

```
}{}

}% TD@patchstandardlatex
```

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

```
\@ifpackageloaded{lwarp}{%
    \ifbool{warpingprint}{\TD@patchstandardlatex}{}%
}{%
    \TD@patchstandardlatex%
}
```

4.4 titletoc support

If titletoc is loaded, patch macros for its use:

```
\AtBeginDocument{
\@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.

```
\newcommand*{\TD@titletoc@patch}[1]{%
    \expandafter\xpatchcmd\csname ttl@savel@#1\endcsname
        {\nobreak\hfil\nobreak}
        {\nobreak\hfil\TD@usetocdata\nobreak}
        {}
        {%
            \PackageWarningNoLine{tocdata}{%
                Could not patch titletoc ttl@savel@#1.\MessageBreak
                Authors may not appear in TOC, LOF}
        }
    \expandafter\xpatchcmd\csname l@#1\endcsname
        {\contentspage}
        {\TD@usetocdata\contentspage}
        {}
```

```
        {%
            \PackageWarningNoLine{tocdata}{%
                Could not patch titletoc l@#1.\MessageBreak
                Authors may not appear in TOC, LOF}
        }
}

\TD@titletoc@patch{part}
\@ifundefined{chapter}{}{\TD@titletoc@patch{chapter}}
\TD@titletoc@patch{section}
\TD@titletoc@patch{subsection}
\TD@titletoc@patch{subsubsection}
\TD@titletoc@patch{paragraph}
\TD@titletoc@patch{subparagraph}
\TD@titletoc@patch{figure}
\TD@titletoc@patch{table}
}% end of titletoc loaded
{% titletoc is not loaded
}% end of \@ifpackageloaded{titletoc}
}% 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.

```
\AtBeginDocument{
\@ifclassloaded{memoir}
{
\appto{\cftpartleader}{\TD@usetocdata}
\appto{\cftchapterleader}{\TD@usetocdata}
\appto{\cftsectionleader}{\TD@usetocdata}
\appto{\cftsubsectionleader}{\TD@usetocdata}
\appto{\cftsubsubsectionleader}{\TD@usetocdata}
\appto{\cftparagraphleader}{\TD@usetocdata}
\appto{\cftsubparagraphleader}{\TD@usetocdata}
\appto{\cftfigureleader}{\TD@usetocdata}
\appto{\cfttableleader}{\TD@usetocdata}
\appto{\cftsubfigureleader}{\TD@usetocdata}
\appto{\cftsubtableleader}{\TD@usetocdata}
}% memoir
{% not memoir
\@ifpackageloaded{tocloft}
{
```

`\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.

```
\appto{\cftpartleader}{\TD@usetocdata}
\if@cfthaschapter
    \appto{\cftchapleader}{\TD@usetocdata}
\fi
```

```
\appto{\cftsecleader}{\TD@usetocdata}
\appto{\cftsubsecleader}{\TD@usetocdata}
\appto{\cftsubsubsecleader}{\TD@usetocdata}
\appto{\cftparaleader}{\TD@usetocdata}
\appto{\cftsubparaleader}{\TD@usetocdata}
\appto{\cftfigleader}{\TD@usetocdata}
\appto{\cfttableader}{\TD@usetocdata}
\appto{\cftsubfigleader}{\TD@usetocdata}
\appto{\cftsubtableader}{\TD@usetocdata}

}% end of tocloft patches
{}% tocloft not loaded
}% not memoir
}% \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:

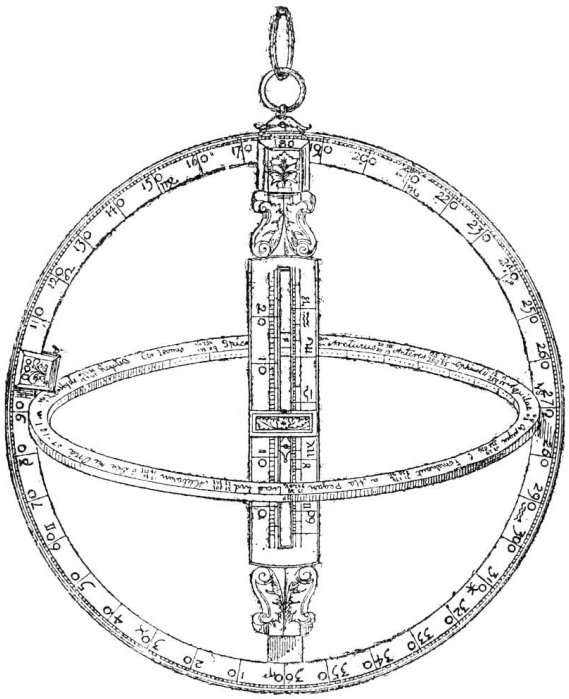
```
\AtBeginDocument{

\@ifpackageloaded{tocbasic}{
\xpatchcmd{\scr@dte@tocline}
    {%
        \nobreak
        \expandafter\let\expandafter\scr@dte@pagenumberwidth
    }
    {%
        \TD@usetocdata%     tocdata
        \nobreak
        \expandafter\let\expandafter\scr@dte@pagenumberwidth
    }
    {}
    {%
        \PackageWarningNoLine{tocdata}{%
            Could not patch tocbasic \protect\scr@dte@tocline.\MessageBreak
            Authors may not appear in TOC, LOF}
    }
}{}
}
```

4.7 tocstyle support

```
\AtBeginDocument{
\@ifpackageloaded{tocstyle}{
\xpatchcmd\tocstyle@dottedtocline
    {%
      \ifx\tocstyle@feature@leaders\relax
        \leaders\hbox{$\m@th
```

```
          \mkern \@dotsep mu\hbox{\tocstyle@feature@dothook .}%
          \mkern \@dotsep mu$}\hfill
      \else
        \tocstyle@feature@leaders
      \fi%
    }
    {%
      \ifx\tocstyle@feature@leaders\relax
        \leaders\hbox{$\m@th
          \mkern \@dotsep mu\hbox{\tocstyle@feature@dothook .}%
          \mkern \@dotsep mu$}\hfill
      \else
        \tocstyle@feature@leaders
      \fi%
      \TD@usetocdata%
    }
    {}%
    {%
        \PackageWarningNoLine{tocdata}{%
        Could not patch tocstyle \protect\tocstyle@dottedtocline.\MessageBreak
            Authors may not appear in TOC, LOF}
    }%
}{}
}
```



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

`\TDoptionalnameprint` {⟨*name*⟩}

Adds optional artist's name and the following space.

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

```
    {}%
    {#1~}%
}
```

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

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

```
\newcommand{\tocdatapartprint}[4]
{%
    \par\noindent%
    {%
        \normalfont\normalsize%
        \textit{%
            \hspace*{4em}--- %
            \TDoptionalnameprint{#1}\TDoptionalnameprint{#2}#3#4%
        }%
    }%
}
```

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

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

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

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

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

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

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

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

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

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

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

```
    \par%
    \addvspace{2ex}%
}
```

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

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

```
\newcommand{\tocdataartistprint}{%
    \par\smallskip%
    \TDartistauthorprint{artist}%
}
```

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.

```
\newcommand{\tocdataauthorprint}{%
    \par\smallskip%
    \TDartistauthorprint{author}%
}
```

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

```
\newcommand{\TDartistauthortextprint}[2]{%
    \addvspace{2ex}%
    \begin{minipage}{\linewidth}%
    \csuse{TD@#1textalign}%
    \footnotesize\normalfont%
    \setlength{\parskip}{1.5ex}%
    \setlength{\parindent}{0em}%
    #2%
    \end{minipage}%
    \par%
    \addvspace{2ex}%
}
```

`\tocdataartisttextprint` {⟨*text*⟩}

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

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

`\tocdataauthortextprint` {⟨*text*⟩}

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

```
\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*⟩}

```
\@ifclassloaded{article}
{
    \newcommand*{\TD@starredsectionauthorprint}[5]{%
        \unskip\medskip\csuse{tocdata#1print}{#2}{#3}{#4}{#5}\par%
        \bigskip%
    }
}
{
    \newcommand*{\TD@starredsectionauthorprint}[5]{%
        \ifstrequal{#1}{part}%
        {%
            \PackageWarning{tocdata}{%
                The author's name will not be printed for\MessageBreak
                the starred \protect\part%
            }
        }%
        {%
            \unskip\medskip\csuse{tocdata#1print}{#2}{#3}{#4}{#5}\par%
            \bigskip%
        }%
    }
}
```

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

```
\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:

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

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

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

Create the section depending on the optional name:

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

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

```
    \ifblank{#6}%
        {\index{#7}}%
        {\index{#7, #6}}%
}
```

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

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

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

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

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

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

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

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

4.8.3 Figure artist name alignment

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

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

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

```
\newcommand{\tdartistjustify}{%
    \renewcommand{\TD@artistalign}{}%
}
```

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

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

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

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

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

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

4.8.4 Figure author name alignment

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

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

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

```
\newcommand{\tdauthorjustify}{%
    \renewcommand{\TD@authoralign}{}%
}
```

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

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

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

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

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

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

4.8.5 Figure artist text alignment

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

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

\tdartisttextjustify Sets justified text alignment in the optional text.

```
\newcommand{\tdartisttextjustify}{%
    \renewcommand{\TD@artisttextalign}{}%
}
```

\tdartisttextcenter Sets centered text alignment in the optional text.

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

\tdartisttextleft Sets left text alignment in the optional text.

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

\tdartisttextright Sets right text alignment in the optional text.

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

4.8.6 Figure author text alignment

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

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

\tdauthortextjustify Sets justified text alignment in the optional text.

```
\newcommand{\tdauthortextjustify}{%
    \renewcommand{\TD@authortextalign}{}%
}
```

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

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

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

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

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

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

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.

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

Print the artist's name next to the figure:

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

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

```
    \ifblank{#5}%
        {}%
        {\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

A 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
General: 2016/12/02 1
Added requirement for xifthen. . . 10
\TD@captionartistauthor: Allows paragraphs in add'l text. 25
Expands first name before index check. 25
\TD@sectionauthor: Expands first name before index check. 21
\TDartistauthortextprint: Added text alignment. 20
Improved spacing. 20
\tdartistjustify: etc. Added name alignment. 22
\tdartisttextjustify: etc. Added text alignment. 24
\tdauthorjustify: etc. Added name alignment. 23
\tdauthortextjustify: etc. Added text alignment. 24
\tocdataartistprint: Added name alignment. 20
Improved spacing. 20
\tocdatapartprint: Improved spacing. 19
v1.00
General: 2019/01/12 1
Improved source formatting. . . . 1
Remove xifthen dependency. . . . 10
v2.00
General: 2019/03/15 1
Added caption authors. 1
Added part and subsection macros. 1
Added support for new float types. 1
Adds support for default LaTeX toc formattting, without using titletoc or tocloft. 12
Improved patches for titletoc. . . . 14
Improved patches for tocloft. . . . 15
Patches \AtBeginDocument. . . 14, 15
Replaced \tdnameX with \tdauthorX and \tdartistX. . . . 22
Test for both titletoc and tocloft. . 11
Test for early titletoc or tocloft. . . 10
\partauthor: Added. 22
\subsectionauthor: Added. 22
\TD@captionartistauthor: Added support for new float types. 26
Factored. 25
\TD@sectionauthor: Factored. . . . 21
Improved page breaks. 21
\TDartistauthorprint: Improved font control. 19
\TDartistauthortextprint: Improved font control. 20
Replaced \tocdatafigtextprint with \tocdataartisttextprint and \tocdataauthortextprint. 20
\tocdataartistprint: Added. 20
\tocdataauthorprint: Added. 20
\tocdatachapterprint: Renamed from \tocdatachapprint. 19
\tocdatapartprint: Added. 19
\tocdatasectionprint: Renamed from \tocdatasecprint. 19
\tocdatasubsectionprint: Added. 19
v2.01
General: 2019/03/15 1
\l@section: Fix for LaTeX core section TOC entry. 13
v2.02
General: 2019/03/21 1
Docs: Fix macro names. 9
\TD@sectionauthor: Fix: Sectioning name formatting. 21
\tocdataartistprint: Improved spacing. 20
\tocdataauthorprint: Improved spacing. 20
v2.03
General: 2019/07/06 1
Added support for memoir. . . 10, 15
Added support for tocbasic. . . . 16
Added support for tocstyle. . . . 16
Fix: Don't try to patch lwarp. . . . 12
Tested to work with \dottedcontents. 14
\l@chapter: Added support for koma-script. 13
Added support for memoir. . . . 13
\l@part: Added support for koma-script. 13
Added support for memoir. . . . 13
\l@section: Fix: Only patch if article. 13
\TD@sectionauthor: Fix: Starred sectioning name formatting and labels. 21

\TD@starredsectionauthorprint: No author for \part* in book class. 21
\TD@usetocdata: Fix: No action if empty data. 12
Uses \tocdataformat instead of \tocdatafont. 12
\TDartistauthorprint: Name changed from \TD@artistauthorprint. 19
\TDartistauthortextprint: Name changed from \TD@artistauthortextprint. . . 20
\TDoptionalnameprint: Name changed from \TD@optionalnameprint. 18
\tocdatapartprint: Removed \unskip. 19
v2.04
General: 2020/07/15 1
Updated for tocbasic v3.30. 16
v2.05
General: 2023/01/03 1
Docs updated for dtxdescribe. . . . 1
v2.06
General: 2024/01/12 1
Changed contact info. 1
v2.07
General: 2024/01/20 1
Docs: Improved TOC change log and index entries. 1
Docs: Removed extra spaces. . . . 1

B Index

Symbols
\@dottedtocline 68

A
Alphabet, Greek 14, 31
Authors, Various 5

C
\captionartist *8*, 412
\captionartist␣* *8*
\captionauthor *8*, 413
\captionauthor␣* *8*
\cftXleader *15*
\chapterauthor *8*, 335
Churchill, Winston Leonard Spencer . . 31

D
Dunn, Brian 4, 6, 10

F
Farny, H. F. 5

G
Genbi, Hayashi 4

H
Herschel, John 6
Hokusai, Katsushika 27

K
Kaoru, Iwamoto 4

L
\l@chapter 89
\l@part 77
\l@section 102

N
Newton, Isaac 10, 18

P
\partauthor *8*, 334
Pope, Alexander 9

S
\sectionauthor *8*, 340
\settocdata 45
\subsectionauthor *8*, 341

T
\TD@artistalign 342
\TD@artisttextalign 368
\TD@authoralign 355
\TD@authortextalign 381
\TD@captionartistauthor 394
\TD@checktocdatafont 57
\TD@patchstandardlatex 67
\TD@sectionauthor 318
\TD@starredsectionauthorprint 296
\TD@thistocdata 44
\TD@usetocdata 51
\TDartistauthorprint 265
\TDartistauthortextprint 282
\tdartistcenter *9*, 346
\tdartistjustify *9*, 343
\tdartistleft *9*, 349

\tdartistright 9, 352
\tdartisttextcenter 9, 372
\tdartisttextjustify 9, 369
\tdartisttextleft 9, 375
\tdartisttextright 9, 378
\tdauthorcenter 9, 359
\tdauthorjustify 9, 356
\tdauthorleft 9, 362
\tdauthorright 9, 365
\tdauthortextcenter 9, 385
\tdauthortextjustify 9, 382
\tdauthortextleft 9, 388
\tdauthortextright 9, 391
\TDoptionalnameprint 241
\titlecontents *14*
\tocdata *7*, 46
\tocdataartistprint *9*, 274
\tocdataartisttextprint *9*, 294
\tocdataauthorprint *9*, 278
\tocdataauthortextprint *9*, 295
\tocdatachapterprint *8*, 258
\tocdatafont 49
\tocdataformat *7*, 50
\tocdatapartprint *8*, 247
\tocdatasectionprint *8*, 263
\tocdatasubsectionprint *8*, 264

"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