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, memoir, koma-script, and with titletoc, tocloft, tocbasic, and tocstyle.
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### Change History and Index

*makeindex*  
32

### List of Figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Author/Artist</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A Challenge</td>
<td>Hayashi Genbi</td>
</tr>
<tr>
<td>2</td>
<td>Astronometer</td>
<td>John Herschel</td>
</tr>
<tr>
<td>3</td>
<td>Diagram of a Sunbeam</td>
<td>Isaac Newton</td>
</tr>
<tr>
<td>4</td>
<td>Pi</td>
<td>Greek Alphabet</td>
</tr>
<tr>
<td>5</td>
<td>Sir Isaac Newton's Astrolabe</td>
<td>Isaac Newton</td>
</tr>
<tr>
<td>6</td>
<td>Omega</td>
<td>Greek Alphabet</td>
</tr>
</tbody>
</table>
List of Illustrations

1. The Crazy Engineer .............................. H. F. Farny 5
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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 35
“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.”

— 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 \texttt{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 \texttt{titletoc} or \texttt{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.\footnote{Yes, I do recognize the absurdity of placing my own name in the index amongst the likes of Churchill, Genbi, Herschel, Kaoru, Newton…}
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.

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


⚠️ Too much text!
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:
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\textit{\small#1}}}

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

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

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

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.

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 \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.
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

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

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

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
4 Implementation

— Brian Dunn

Below, the \texttt{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 \texttt{titletoc} and \texttt{tocloft}.

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

4.1 Requirements

\begin{verbatim}
1 \RequirePackage{xparse}
2 \RequirePackage{etoolbox}
3 \RequirePackage{xpatch}

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

4 \@ifpackageloaded{titletoc}\
5 \PackageError{tocdata}{
6  \% Load titletoc after toodata\%
7  )
8  \%\}
9  \%
10  Move $\protect\usepackage(titletoc)$ after $\protect\usepackage(tocdata).%$
11  )\}
12 ){}
\end{verbatim}
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%}{
        \PackageError{tocdata}{The tocdata package may use the default LaTeX formatting,\MessageBreak or either one of titletoc or tocloft.}{
          }}{}
      }
  }
}

\section{tocdata code}

\TD@thistocdata Storage for the data to be added to the end of the \texttt{toc} entry:

\newcommand{\TD@thistocdata}{}

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

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

\tdtocdata \texttt{\{\{text\}\}}
To be called by a higher-level macro to assign data to a `.toc` or `.lof` file:

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

\texttt{\textbackslash tocdatafont \{\textit{\textbackslash text}\}}

Provided for compatibility with older documents. Instead, use and redefine \texttt{\textbackslash tocdataformat} for newer documents.

\begin{verbatim}
\newcommand{\tocdatafont}[1]{{\normalfont\textit{\small#1}}}
\end{verbatim}

\texttt{\textbackslash tocdataformat \{\textit{\textbackslash text}\}}

Controls the font and formatting for the \texttt{\textbackslash toc} data:

\begin{verbatim}
\renewcommand{\tocdataformat}[1]{\textit{#1}}
\end{verbatim}

\texttt{\textbackslash TD@usetocdata}

To be inserted into low-level \texttt{\textbackslash toc}-generation code where the data should appear.

See the example using \texttt{\textbackslash titletoc}, below.

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

\begin{verbatim}
\newcommand{\TD@usetocdata}{%
  \ifdefvoid{\TD@thistocdata}{}{%
    \tocdataformat{\TD@thistocdata}%
    \global\def\TD@thistocdata{}%
  }%
%}
\end{verbatim}

\texttt{\textbackslash TD@checktocdatafont \{\textit{\textbackslash text}\}}

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

\begin{verbatim}
\let\TD@checktocdatafont\tocdatafont
\AtBeginDocument{
  \ifdefequal\TD@checktocdatafont\tocdatafont{}}{
    \PackageWarningNoLine{tocdata}{%}
    You have redefined \protect\textbackslash tocdatafont, \MessageBreak
    which has been deprecated. Please redefine \MessageBreak
    \protect\textbackslash tocdataformat \space instead}
  }
}
\end{verbatim}
4.3 Standard \LaTeX patches

\TD@patchstandardlatex Patches standard \LaTeX toc formatting.

\begin{verbatim}
\newcommand*{\TD@patchstandardlatex}{
\@dottedtocline
\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} }
\end{verbatim}

\@dottedtocline Patched for todata.

\begin{verbatim}
\xpatchcmd{\@dottedtocline}{\hfill\nobreak}{\hfill\TD@usetocdata\nobreak}{}{\
\PackageWarningNoLine{tocdata}{Could not patch LaTeX core \protect\@dottedtocline.\MessageBreak
Authors may not appear in TOC parts}}
\end{verbatim}

\l@part Patched for todata.

\begin{verbatim}
\@ifclassloaded{memoir}{}{\%\%\%
\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}}
\end{verbatim}

\l@chapter Patched for todata.

\begin{verbatim}
\@ifclassloaded{memoir}{}{\%\%
\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}}
\end{verbatim}
\section*{Patched for toodata.}

\begin{verbatim}
101 }\}
\AtBeginDocument{\ifpackageloaded{article}{\xpatchcmd{\l@section}{\hfil\nobreak}{\hfil\TD@usetocdata\nobreak}{}{\PackageWarningNoLine{tocdata}{\message{Could not patch LaTeX core\protect\l@section.\MessageBreak\protect\Authors may not appear in TOC sections}\message{}}}{}
\TD@patchstandartlatex

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

\begin{verbatim}
114 \ifpackageloaded{l warp}{\ifbool{warpingprint}{\TD@patchstandartlatex}{}}\TD@patchstandartlatex\%\%
117 \TD@patchstandartlatex%
118 }
\end{verbatim}
\end{verbatim}

4.4 \textit{titletoc} support

If \textit{titletoc} is loaded, patch macros for its use:

\begin{verbatim}
119 \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 toodata 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 \texttt{\titlecontents} was used. Since every combination is tried, but will only succeed if \texttt{\titlecontents} was used, no warnings are printed if the patch fails.

\begin{verbatim}
121 \newcommand*{\TD@titletoc@patch}{% 
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 \TD@titletoc@patch{part}
134 @ifundefined{chapter}{}{\TD@titletoc@patch{chapter}}
135 \TD@titletoc@patch{section}
136 \TD@titletoc@patch{subsection}
137 \TD@titletoc@patch{subsubsection}
138 \TD@titletoc@patch{paragraph}
139 \TD@titletoc@patch{subparagraph}
140 \TD@titletoc@patch{figure}
141 \TD@titletoc@patch{table}
142 \TD@titletoc@patch{table}
143 \TD@titletoc@patch{table}
144 \TD@titletoc@patch{table}
145 \TD@titletoc@patch{table}
146 \TD@titletoc@patch{table}

4.5 tocloft and memoir support

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

\begin{verbatim}
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{\cftsubparagraphleader}{\TD@usetocdata} 
157 \appto{\cftfigureleader}{\TD@usetocdata}
\end{verbatim}
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.

\cftXleader

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{
% not memoir
\if@cfthaschapter
  \appto{\cftchapleader}{\TD@usetocdata}
\fi
\appto{\cftsecleader}{\TD@usetocdata}
\appto{\cftparaleader}{\TD@usetocdata}
\appto{\cftfigleader}{\TD@usetocdata}
\appto{\cfttableleader}{\TD@usetocdata}
\appto{\cftsubfigleader}{\TD@usetocdata}
\appto{\cftsubtableleader}{\TD@usetocdata}
\appto{\cftsubsubsecleader}{\TD@usetocdata}
\appto{\cftparaleader}{\TD@usetocdata}
% end of tocloft patches
} % not tocloft loaded
% \AtBeginDocument
\parfillskip -\rightskip
@nameuse{Ifscr@tso@#1_raggedpage}(%
  \addtolength[\parfillskip]{\z@ \@plus 1fil}%
)%(%  \parindent \@nameuse{scr@tso@#1_indent}\relax
 \@afterindenttrue
 \interlinepenalty\@M
 \expandafter\ifx\csname ragged#1entry\endcsname\raggedright
 \addtolength[rightskip]{@flushglue}
 \else
 \expandafter\ifx\csname ragged#1entry\endcsname\reserved@a
 \addtolength[rightskip]{@flushglue}
 \else
 \renewcommand\reserved@a{\raggedright}%
 \expandafter\ifx\csname ragged#1entry\endcsname\reserved@a
 \addtolength[rightskip]{@flushglue}
 \fi
 \fi
 \fi
 \leavevmode
 \@tempdima \@nameuse{scr@tso@#1_numwidth}\relax
 \@nameuse{Ifscr@tso@#1_dynnumwidth}(%
 \scr@ifundefinedorrelax{scr@dte@#1_lastmaxnumwidth}{}{%
 \ifdim \@nameuse{scr@dte@#1_lastmaxnumwidth}>\@tempdima
 \@tempdima \@nameuse{scr@dte@#1_lastmaxnumwidth}\relax
 \fi
 \fi
 \fi
 \leavevmode
 \@tempdima \@nameuse{scr@tso@#1_numwidth}\relax
 \@nameuse{Ifscr@tso@#1_dynnumwidth}{}{%
 \ifdim \@tempdima >\dimexpr \@nameuse{scr@tso@#1_numwidth} +\@nameuse{scr@tso@#1_numsep}\relax
 \PackageWarning{tocbasic}{number width of #1 toc entries should be
increased! 

Currently used number width = 
\the\wd\scr@dte@tocline@numbox, 

Wanted number separation 
\space\space\space = 
\the\dimexpr\@nameuse{scr@tso@#1@numsep}\relax, 

Reserved number width \space\space\space\space\space\space = 
\the\dimexpr\@nameuse{scr@tso@#1@numwidth}\relax%

\sc@dte@numberline@box{\@nameuse{scr@tso@#1@numberformat}{##1}}
\@nameuse{Ifscr@tso@#1@breakafternumber}{\parfillskip\@flushglue\par}
\nobreak\hskip-\leftskip
\@nameuse{scr@tso@#1@entryformat}{#2}
\nobreak
\par
\@par
tocbasic@SetPenaltyByTOCLevel{#1}

\AtBeginDocument{
\ifpackageloaded{tocstyle}{
\patchcmd{tocstyle}{dottedtocline}{
\@ifpackageloaded{tocstyle}{
support}
\fi

4.7 \texttt{tocstyle} support
\m kern \@dot sep mu$\hfill$

\else
\do c style@feature@leaders
\fi%
)

\ifx\do c style@feature@leaders\relax
\leaders\hbox{$\m@th$
\m kern \@dot sep mu$\hbox{\do c style@feature@dothook .}%
\m kern \@dot sep mu$\hfill$
\else
\do c style@feature@leaders
\fi%
)@usetocdata%
)

\PackageWarningNoLine{tocdata}{%
Could not patch tocstyle \protect\dottedtocline.\MessageBreak
Authors may not appear in TOC, LOF}
%
}{}
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.

\newcommand{\TDoptionalnameprint}[1]
\ifblank{#1}{}
(#1-%)

\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.

\newcommand{\tocdatachapterprint}[4]
\par
\noindent
\normfont\normalsize\textit{
\hspace*{4em}--- \TDoptionalnameprint{#1}\TDoptionalnameprint{#2}#3#4
}

\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.

\let\ifundefined\if\else\fi
\let\@ifundefined\if\else\fi
\let\@ifnextchar\if\else\fi
\ifundefined{chapter}\else\fi
\% if no chapters
\% only of chapters exists in this documentclass:
\let\tocdatachapterprint\tocdatapartprint
\%
\%

\let\tocdatasectionprint\tocdatachapterprint

\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.

\let\tocdatasubsectionprint\tocdatasectionprint

\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.


\TDartistauthorprint \{\langle 1: "artist" or "author"angle \langle 2: prefix\rangle \langle 3: first\rangle \langle 4: last\rangle \langle 5: suffix\rangle\}

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

\tocdataartistprint \{\langle prefix\rangle \langle first\rangle \langle last\rangle \langle suffix\rangle\}

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 \{\langle prefix\rangle \langle first\rangle \langle last\rangle \langle suffix\rangle\}

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

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

\TDartistauthortextprint \{\langle "artist" or "author"\rangle \langle text\rangle\}

\newcommand{\TDartistauthortextprint}[2]{%  \addvspace{2ex}\%  \begin{minipage}{\linewidth}  
\csuse{TD@#1textalign}\%  
\footnotesize\normalfont\%  
\setlength{\parskip}{1.5ex}\%  
\setlength{\parindent}{0em}\%  
#2\%  
\end{minipage}\%  
\par\%}
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.
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} %
}
{ no star: %
 \@ifundefined{chapter}{% % if no chapters
 \newcommand*{\chapterauthor}{\TD@sectionauthor{chapter}} %
 }% only of chapters exists in this documentclass:
 \newcommand*{\chapterauthor}{\TD@sectionauthor{chapter}}
} % if no chapters

\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 %
 \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] %
 \newcommand*{\chapterauthor}{\TD@sectionauthor{chapter}}
}
\sectionauthor \newcommand*{\sectionauthor}{\TD@sectionauthor{section}}
\subsectionauthor \newcommand*{\subsectionauthor}{\TD@sectionauthor{subsection}}

4.8.3 Figure artist name alignment
\TD@artistalign \newcommand{\TD@artistalign}{\centering}
\tdartistjustify \newcommand{\tdartistjustify}{% 
\renewcommand{\TD@artistalign}{}% \}
\tdartistcenter \newcommand{\tdartistcenter}{% 
\renewcommand{\TD@artistalign}{\centering}%
\}
\tdartistleft \newcommand{\tdartistleft}{% 
\renewcommand{\TD@artistalign}{\raggedright}% 
\}
\tdartistright \newcommand{\tdartistright}{% 
\renewcommand{\TD@artistalign}{\raggedleft}% 
\}

4.8.4 Figure author name alignment
\TD@authoralign \newcommand{\TD@authoralign}{\raggedleft}
\tdauthorjustfy \textbf{Sets justified text alignment for the author's name.}

\begin{verbatim}
425 \newcommand{\tdauthorjustfy}{%
426 \renewcommand{\TD@authoralign}{%}
427 }
\end{verbatim}

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

\begin{verbatim}
428 \newcommand{\tdauthorcenter}{%
429 \renewcommand{\TD@authoralign}{\centering}
430 }
\end{verbatim}

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

\begin{verbatim}
431 \newcommand{\tdauthorleft}{%
432 \renewcommand{\TD@authoralign}{\raggedright}
433 }
\end{verbatim}

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

\begin{verbatim}
434 \newcommand{\tdauthorright}{%
435 \renewcommand{\TD@authoralign}{\raggedleft}
436 }
\end{verbatim}

\subsection*{4.8.5 Figure artist text alignment}

\TD@artisttextalign \textbf{Sets text alignment in the optional text.}

\begin{verbatim}
437 \newcommand{\TD@artisttextalign}{\centering}
\end{verbatim}

\tdartisttextjustify \textbf{Sets justified text alignment in the optional text.}

\begin{verbatim}
438 \newcommand{\tdartisttextjustify}{%
439 \renewcommand{\TD@artisttextalign}{%}
440 }
\end{verbatim}

\tdartisttextcenter \textbf{Sets centered text alignment in the optional text.}

\begin{verbatim}
441 \newcommand{\tdartisttextcenter}{%
442 \renewcommand{\TD@artisttextalign}{\centering}
443 }
\end{verbatim}

\tdartisttextleft \textbf{Sets left text alignment in the optional text.}
\tdartisttextleft \newcommand{\tdartisttextleft}{\%\renewcommand{\TD@artisttextalign}{\raggedright}\%}
\tdartisttextright \newcommand{\tdartisttextright}{\%\renewcommand{\TD@artisttextalign}{\raggedleft}\%}

4.8.6 Figure author text alignment

\TD@authortextalign \newcommand{\TD@authortextalign}{\centering}
\tdauthortextjustify \newcommand{\tdauthortextjustify}{\%\renewcommand{\TD@authortextalign}{}\%}
\tdauthortextcenter \newcommand{\tdauthortextcenter}{\%\renewcommand{\TD@authortextalign}{\centering}\%}
\tdauthortextleft \newcommand{\tdauthortextleft}{\%\renewcommand{\TD@authortextalign}{\raggedright}\%}
\tdauthortextright \newcommand{\tdauthortextright}{\%\renewcommand{\TD@authortextalign}{\raggedleft}\%}

Sets right text alignment in the optional text.
Sets justified text alignment in the optional text.
Sets centered text alignment in the optional text.
Sets left text alignment in the optional text.
Sets right text alignment in the optional text.
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

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:
\unskip%

If starred, there should be no toc entry, so do not add tocdata. Use \caption* from the caption or similar packages.
\IfBooleanTF{#2}{%
% starred
\IfValueTF{#3}{\caption*[#3][#4]}{\caption*{#4}}%
% starred
\% not starred

No starred, so remember the artist's name for inclusion in the LOF:
\tocdata{\csuse{ext\@captype}}(#7 #8)%
Create the caption depending on the optional name:
\IfValueTF{#3}{\caption[#3][#4]}{\caption{#4}}
% not starred

Create an index entry depending on whether there is a first name:
\ifblank{#7}{}
\index{#8}
\index{#8, #7}

\captionartist *
\captionauthor *
\newcommand*{\captionartist}{\TD@captionartistauthor{artist}}
\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@captionartistauthor: Allows paragraphs in add'l text 29
Expands first name before index check 29
\TD@sectionauthor: Expands first name before index check 25
\TDartistauthortextprint: 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
\tocdatatextprint: 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
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Factored 29
\TD@sectionauthor: Factored 25
Improved page breaks 25
\TDartistauthorprint: Improved font control 23
\TDartistauthortextprint: Improved font control 23

v2.01
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General: 2019/03/15 1

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\tocdataartistprint: Improved spacing 23
\tdauthorprint: Improved spacing 23
\tocdatapartprint: Improved spacing 22
\tocdatasectionprint: Renamed from \tocdatasectionprint 22
\tocdatasubsectionprint: Added 22

v2.03
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Added support for memoir. 14
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Added support for tocbasic. 17
Added support for tocstyle. 19
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34
“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 …

Ω

Greek Alphabet

Figure 6: Omega