

The tocddata package

v2.04 — 2020/07/15

© 2016–2020 Brian Dunn
bd@BDTechConcepts.com

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

Abstract

The tocddata 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.

tocddata works with the TOC / LOF formatting of the default L^AT_EX classes, memoir, koma-script, and with titletoc, tocloft, tocbasic, and tocstyle.

Contents

1	Introduction	<i>Brian Dunn</i>	4
2	Other methods	<i>Various Authors</i>	5
3	How to use tocdata	<i>Brian Dunn</i>	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		8
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		9
3.3.4	Text justification		9
4	Implementation	<i>Brian Dunn</i>	11
4.1	Requirements		11
4.2	tocdata code		12
4.3	Standard L ^A T _E X patches		14
4.4	titletoc support		15
4.5	tocloft and memoir support		16
4.6	Koma-script tocbasic support		17
4.7	tocstyle support		18
4.8	User-level macros		20
4.8.1	User customization		20
4.8.2	Chapters and sections		23
4.8.3	Figure artist name alignment		25
4.8.4	Figure author name alignment		25
4.8.5	Figure artist text alignment		26
4.8.6	Figure author text alignment		27
4.8.7	Figure captions with artists and authors		28
	Change History and Index	<i>makeindex</i>	31

List of Figures

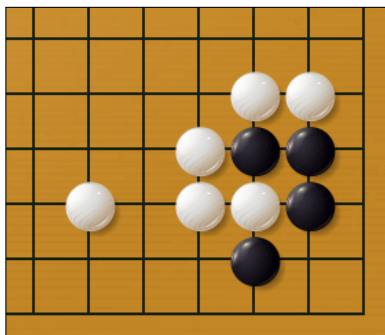
1	A Challenge	<i>Hayashi Genbi</i>	4
2	Astronomer	<i>John Herschel</i>	6
3	Diagram of a Sunbeam	<i>Isaac Newton</i>	11
4	Pi	<i>Greek Alphabet</i>	15
5	Sir Isaac Newton's Astrolabe	<i>Isaac Newton</i>	20
6	Omega	<i>Greek Alphabet</i>	34

List of Illustrations

- 1 **The Crazy Engineer** *H. F. Farny* 5
- 2 **Quail** *Alexander Pope* 10
- 3 **Lacquer Go Board** *Katsushika Hokusai* 30

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* 34



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.

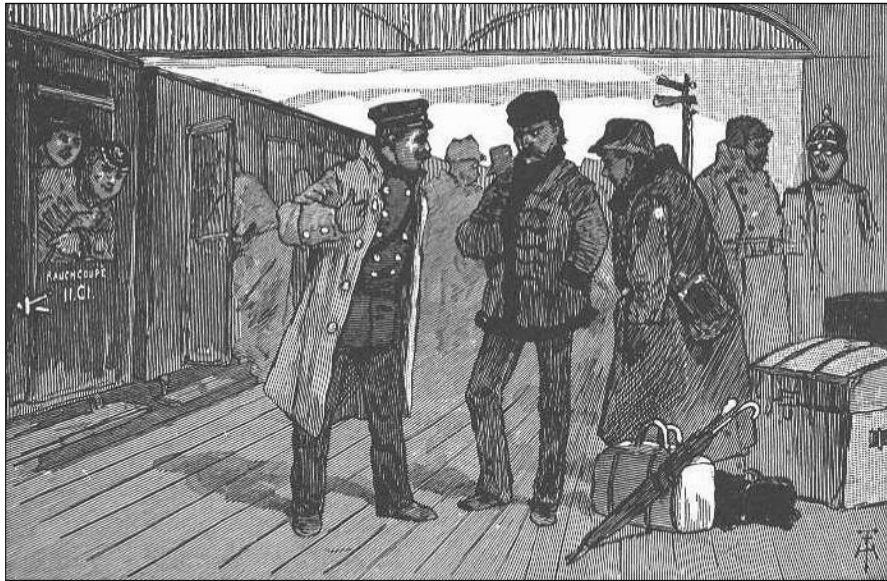
Many commonly-recommended methods for doing this with \LaTeX , such as those linked to in section 2, place the author above or below the title and page number, but seldom on the same line.

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

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.

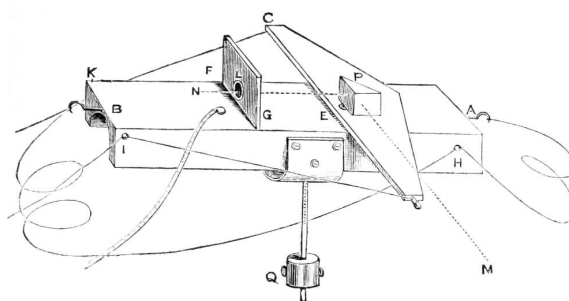
⚠ **Too much text!**

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

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

Figure 2: Astronomer

3 How to use tocdata

— *Brian Dunn*

This section shows how to use the tocdata package.

There are several layers of macros:

- The lowest level provides the basic infrastructure for inserting information into the table of contents, along with hooks for the `titletoc` and `tocloft` packages.
- The intermediate-level macro is `\tocdata`, which may be used to manually add a piece of data to a `\chapter`, `\section`, or `\caption`. `\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 parentheses, etc.:

```

\renewcommand{\tocdataformat}[1]{%
  \normalfont\textsc{\footnotesize\quad --- (#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` To use these macros, do not use `\tocdata` as shown above, but instead use, in the
`\chapterauthor` place of `\part`:
`\sectionauthor`
`\subsectionauthor` `\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 `caption` package or another package which supports `\caption*`,
`\captionauthor*` 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.

⚠ 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

`\tocdatapartprint` 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 20.
`\tocdatachapterprint`
`\tocdatasectionprint`
`\tocdatasubsectionprint` `\tocdatachapterprint` and `\tocdatasectionprint` by default depend on `\tocdatapartprint`, so if it is redefined the others will have to be redefined as well.

 **redefining**

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

3.3.4 Text justification

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



ALEXANDER POPE

Illustration from *About Quail*
McGuffey's Fifth Eclectic Reader

Illustration 2: Quail

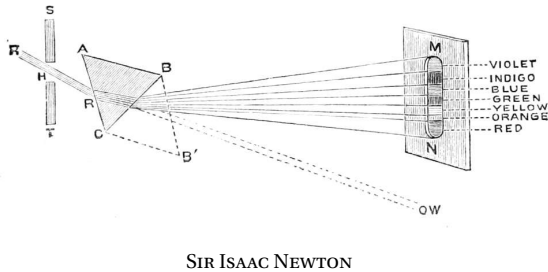


Figure 3: Diagram of a Sunbeam

4 Implementation

— *Brian Dunn*

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

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

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

4.1 Requirements

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

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

```
4 \@ifpackageloaded{titletoc}{
5   \PackageError{tocdata}
6     {%
7       Load titletoc after tocdata%
8     }
9   {%
10    Move \protect\usepackage{titletoc} after \protect\usepackage{tocdata}.%
11  }
12 }{}
```

```

13
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 }
```

 **deprecated** `\tocdatafont` $\langle text \rangle$ Provided for compatibility with older documents. Instead, use and redefine `\tocdataformat` for newer documents.

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

`\tocdataformat` $\langle text \rangle$

Controls the font and formatting for the toc data:

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

```
50 \def\tocdataformat\tocdatafont
```

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

See the example using `titletoc`, below.

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

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

`\TD@checktocdatafont` $\langle text \rangle$

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 \ifdequal\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@patchstandardlatex` Patches standard L^AT_EX TOC formatting.

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

`\@dottedtocline` Patched for tocdata.

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

`\l@part` Patched for tocdata.

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

`\l@chapter` Patched for tocdata.

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

$$\pi$$

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 `lwarp`, or if `lwarp` is used in print mode:

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

4.4 titletoc support

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

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

```
\titlecontents
```

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

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

The default macros are patched via the 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       \PackageWarningNoLine{tocdata}{%
128         Could not patch titletoc ttl@savel@#1.\MessageBreak
129         Authors may not appear in TOC, LOF}
130     }
131   \expandafter\xpatchcmd\csname l@#1\endcsname
132     {\contentspage}
133     {\TD@usetocdata\contentspage}
134     {}
135     {%
136       \PackageWarningNoLine{tocdata}{%
137         Could not patch titletoc l@#1.\MessageBreak
138         Authors may not appear in TOC, LOF}
139     }
140 }
141
142 \TD@titletoc@patch{part}
143 \ifundefined{chapter}{\TD@titletoc@patch{chapter}}
144 \TD@titletoc@patch{section}
145 \TD@titletoc@patch{subsection}
146 \TD@titletoc@patch{subsubsection}
147 \TD@titletoc@patch{paragraph}
148 \TD@titletoc@patch{subparagraph}
149 \TD@titletoc@patch{figure}
150 \TD@titletoc@patch{table}
151 }% end of titletoc loaded
152 {% titletoc is not loaded
153 }% end of \ifpackageloaded{titletoc}
154 }% end of \AtBeginDocument

```

4.5 tocloft and memoir support

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

```

155 \AtBeginDocument{
156 \ifclassloaded{memoir}
157 {

```



```

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

```

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

```

173 \appto{\cftpartleader}{\TD@usetocdata}
174 \if@cfthaschapter
175   \appto{\cftchapleader}{\TD@usetocdata}
176 \fi
177 \appto{\cftsecleader}{\TD@usetocdata}
178 \appto{\cftsubsecleader}{\TD@usetocdata}
179 \appto{\cftsubsubsecleader}{\TD@usetocdata}
180 \appto{\cftparaleader}{\TD@usetocdata}
181 \appto{\cftsubparaleader}{\TD@usetocdata}
182 \appto{\cftfigleader}{\TD@usetocdata}
183 \appto{\cfttableleader}{\TD@usetocdata}
184 \appto{\cftsubfigleader}{\TD@usetocdata}
185 \appto{\cftsubtableleader}{\TD@usetocdata}

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

```

4.6 Koma-script tocbasic support

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

```

190 \AtBeginDocument{
191
192 \@ifpackageloaded{tocbasic}{
193 \xpatchcmd{\scr@dte@tocline}

```

```

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

```

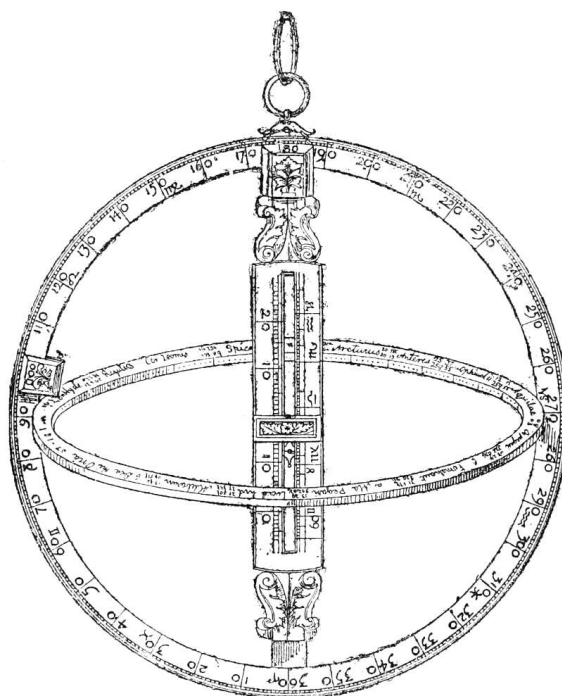
4.7 tocstyle support

```

211 \AtBeginDocument{
212 \ifpackageloaded{tocstyle}{
213 \xpatchcmd\tocstyle@dottedtocline
214   {%
215       \ifx\tocstyle@feature@leaders\relax
216       \leaders\hbox{$\m@th
217           \mkern \@dotsep mu\hbox{\tocstyle@feature@dothook .}%
218           \mkern \@dotsep mu$}\hfill
219       \else
220       \tocstyle@feature@leaders
221       \fi%
222   }
223   {%
224       \ifx\tocstyle@feature@leaders\relax
225       \leaders\hbox{$\m@th
226           \mkern \@dotsep mu\hbox{\tocstyle@feature@dothook .}%
227           \mkern \@dotsep mu$}\hfill
228       \else
229       \tocstyle@feature@leaders
230       \fi%
231       \TD@usetocdata%
232   }
233   }{}%
234   {%
235       \PackageWarningNoLine{tocdata}{%
236           Could not patch tocstyle \protect\tocstyle@dottedtocline.\MessageBreak
237           Authors may not appear in TOC, LOF}
238   }%

```

239 }{
240 }



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

`\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.

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

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

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

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

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

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

```
263 \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.

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

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

```
265 \newcommand{\TDartistauthorprint}[5]{%
266   \begin{minipage}{\linewidth}%
267   \csuse{TD@#1align}%
268   \footnotesize\normalfont%
269   \textsc{\TDoptionalnameprint{#2}\TDoptionalnameprint{#3}#4#5}}%
270   \end{minipage}%
271   \par%
272   \addvspace{2ex}%
273 }
```

`\tocdataartistprint` $\langle prefix \rangle \langle first \rangle \langle last \rangle \langle suffix \rangle$

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

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

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

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

`\tocdataauthorprint` $\langle prefix \rangle \langle first \rangle \langle last \rangle \langle suffix \rangle$

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

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

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

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

```
292 \addvspace{2ex}%
293 }
```

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

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


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

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

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

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

4.8.2 Chapters and sections

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

```
\TD@starredsectionauthorprint {<author's name>}
```

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

```

315     }%
316   }
317 }

```

```

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

```

```

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

```

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

```

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

```

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

```

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

```

Create the section depending on the optional name:

```

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

```

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

```

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

```

```

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

```

```

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

```

```

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

```

```

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

```


`\sectionauthor` * [`\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`]

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

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

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

4.8.3 Figure artist name alignment

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

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

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

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

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

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

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

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

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

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

4.8.4 Figure author name alignment

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

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

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

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

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

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

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

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

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

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

4.8.5 Figure artist text alignment

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

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

`\tdartisttextjustify` Sets justified text alignment in the optional text.

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

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

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

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

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

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

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

4.8.6 Figure author text alignment

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

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

`\tdauthortextjustify` Sets justified text alignment in the optional text.

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

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

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

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

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

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

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

4.8.7 Figure captions with artists and authors

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

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

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

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

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

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

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

Print the artist's name next to the figure:

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

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

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

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

```
399 \unskip%
```

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

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

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

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

Create the caption depending on the optional name:

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

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

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

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

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

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

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



KATSUSHIKA HOKUSAI

From the series *Uma Zukushi*.

Illustration 3: Lacquer Go Board

Change History

v0.10		Replaced <code>\tocdatafigtextprint</code>	
General: 2016/05/05 Initial ver.	1	with <code>\tocdataartisttextprint</code>	
v0.11		and <code>\tocdataauthorprint</code> .	22
General: 2016/07/11	1	<code>\partauthor</code> : Added.	24
Minor docs improvements in		<code>\subsectionauthor</code> : Added.	25
spelling, grammar, formatting.	1	<code>\tocdataartistprint</code> : Added.	22
v0.12		<code>\tocdataauthorprint</code> : Added.	22
<code>\TD@captionartistauthor</code> : Allows		<code>\tocdatachapterprint</code> : Renamed	
paragraphs in add'l text.	28	from <code>\tocdatachapprint</code>	21
Expands first name before index		<code>\tocdatapartprint</code> : Added.	21
check.	28	<code>\tocdatasectionprint</code> : Renamed	
<code>\TD@sectionauthor</code> : Expands first		from <code>\tocdatasecprint</code>	21
name before index check.	24	<code>\tocdatasubsectionprint</code> : Added.	21
<code>\TDartistauthorprint</code> : Added		General: 2019/03/15	1
text alignment.	22	Added caption authors.	1
Improved spacing.	22	Added part and subsection macros.	1
<code>\tdartistjustify</code> : etc. Added name		Added support for new float types.	1
alignment.	25	Adds support for default L ^A T _E X toc	
<code>\tdartisttextjustify</code> : etc. Added		formatting, without using <code>titletoc</code>	
text alignment.	26	or <code>tocloft</code>	14
<code>\tdauthorjustify</code> : etc. Added name		Improved patches for <code>titletoc</code>	16
alignment.	26	Improved patches for <code>tocloft</code>	17
<code>\tdauthorprint</code> : etc. Added		Patches <code>\AtBeginDocument</code>	15, 16
text alignment.	27	Replaced <code>\tdnameX</code> with	
<code>\tocdataartistprint</code> : Added name		<code>\tdauthorX</code> and <code>\tdartistX</code>	25
alignment.	22	Test for both <code>titletoc</code> and <code>tocloft</code>	12
Improved spacing.	22	Test for early <code>titletoc</code> or <code>tocloft</code>	11
<code>\tocdatapartprint</code> : Improved		v2.01	
spacing.	21	<code>\l@section</code> : Fix for L ^A T _E X core section	
General: 2016/12/02	1	toc entry.	15
Added requirement for <code>xifthen</code>	11	General: 2019/03/15	1
v1.00		v2.02	
General: 2019/01/12	1	<code>\TD@sectionauthor</code> : Fix: Sectioning	
Improved source formatting.	1	name formatting.	24
Remove <code>xifthen</code> dependency.	11	<code>\tocdataartistprint</code> : Improved	
v2.00		spacing.	22
<code>\TD@captionartistauthor</code> : Added		<code>\tocdataauthorprint</code> : Improved	
support for new float types.	28	spacing.	22
Factored.	28	General: 2019/03/21	1
<code>\TD@sectionauthor</code> : Factored.	24	Docs: Fix macro names.	9
Improved page breaks.	24	v2.03	
<code>\TDartistauthorprint</code> : Improved		<code>\TD@sectionauthor</code> : Fix: Starred	
font control.	22	sectioning name formatting and	
<code>\TDartistauthorprint</code> :		labels.	24
Improved font control.	22		

<code>\TD@starredsectionauthorprint:</code>	Added support for memoir.	14
No author for <code>\part*</code> in book class.	<code>\l@part</code> : Added support for koma-script.	14
<code>\TD@usetocdata</code> : Fix: No action if empty data.	Added support for memoir.	14
Uses <code>\tocdataformat</code> instead of <code>\tocdatafont</code>	<code>\l@section</code> : Fix: Only patch if article.	15
<code>\TDartistauthorprint</code> : Name changed from <code>\TD@artistauthorprint</code>	<code>\tocdatapartprint</code> : Removed <code>\unskip</code>	21
<code>\TDartistauthortextprint</code> : Name changed from <code>\TD@artistauthortextprint</code>	General: 2019/07/06	1
<code>\TDoptionalnameprint</code> : Name changed from <code>\TD@optionalnameprint</code>	Added support for memoir.	11, 16
<code>\l@chapter</code> : Added support for koma-script.	Added support for tocbasic.	17
	Added support for tocstyle.	18
	Fix: Don't try to patch <code>\l@warp</code>	14
	Tested to work with <code>\dottedcontents</code>	15
	v2.04	
	General: 2020/07/15	1
	Updated for tocbasic v3.30.	17

Index

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

Symbols		G	
<code>\@dottedtocline</code>	<u>68</u>	Genbi, Hayashi	4
A		H	
Alphabet, Greek	15, 34	Herschel, John	6
Authors, Various	5	Hokusai, Katsushika	30
C		K	
<code>\captionartist</code>	<i>8</i> , <u>412</u>	Kaoru, Iwamoto	4
<code>\captionartist*</code>	<i>8</i>	L	
<code>\captionauthor</code>	<i>8</i> , <u>413</u>	<code>\l@chapter</code>	<u>89</u>
<code>\captionauthor*</code>	<i>8</i>	<code>\l@part</code>	<u>77</u>
<code>\cftXleader</code>	<i>17</i>	<code>\l@section</code>	<u>102</u>
<code>\chapterauthor</code>	<i>8</i> , <u>335</u>	N	
Churchill, Winston Leonard Spencer	34	Newton, Isaac	11, 20
D		P	
Dunn, Brian	4, 6, 11	<code>\partauthor</code>	<i>8</i> , <u>334</u>
F		Pope, Alexander	10
Farny, H. E.	5		

S			
<code>\sectionauthor</code>	8, 340	<code>\tdartisttextjustify</code>	9, 369
<code>\settocdata</code>	45	<code>\tdartisttextleft</code>	9, 375
<code>\subsectionauthor</code>	8, 341	<code>\tdartisttextright</code>	9, 378
T		<code>\tdauthorcenter</code>	9, 359
<code>\TD@artistalign</code>	342	<code>\tdauthorjustify</code>	9, 356
<code>\TD@artisttextalign</code>	368	<code>\tdauthorleft</code>	9, 362
<code>\TD@authoralign</code>	355	<code>\tdauthorright</code>	9, 365
<code>\TD@authortextalign</code>	381	<code>\tdauthortextcenter</code>	9, 385
<code>\TD@captionartistauthor</code>	394	<code>\tdauthortextjustify</code>	9, 382
<code>\TD@checktocdatafont</code>	57	<code>\tdauthortextleft</code>	9, 388
<code>\TD@patchstandardlatex</code>	67	<code>\tdauthortextright</code>	9, 391
<code>\TD@sectionauthor</code>	318	<code>\TDoptionalnameprint</code>	241
<code>\TD@starredsectionauthorprint</code>	296	<code>\titlecontents</code>	15
<code>\TD@thistocdata</code>	44	<code>\tocdata</code>	7, 46
<code>\TD@usetocdata</code>	51	<code>\tocdataartistprint</code>	9, 274
<code>\TDartistauthorprint</code>	265	<code>\tocdataartisttextprint</code>	9, 294
<code>\TDartistauthortextprint</code>	282	<code>\tocdataauthorprint</code>	9, 278
<code>\tdartistcenter</code>	9, 346	<code>\tocdataauthortextprint</code>	9, 295
<code>\tdartistjustify</code>	9, 343	<code>\tocdatachapterprint</code>	9, 258
<code>\tdartistleft</code>	9, 349	<code>\tocdatafont</code>	49
<code>\tdartistright</code>	9, 352	<code>\tocdataformat</code>	7, 50
<code>\tdartisttextcenter</code>	9, 372	<code>\tocdatapartprint</code>	9, 247
		<code>\tocdatasectionprint</code>	9, 263
		<code>\tocdatasubsectionprint</code>	9, 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