

# Adding TikZ code to TOC

Asked by Paulo Cereda (2,254) on Jun 18 at 16:26 (5 votes)

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Friends, I've been successfully using the `tocloft` package to manage custom indices. But now I have some doubts on a tricky part, whether is possible or not. Consider the following code:

```
\documentclass{article}

\usepackage[titles]{tocloft}
\usepackage{tikz}

\newcommand*\info[1]{%
\begin{tikzpicture}
\node[draw,inner sep=1pt, minimum height=0.2cm, minimum width=0.5cm]
{\tt\tiny #1};
\end{tikzpicture}}

\newcommand{\listfoo}{List of foo}
\newlistof[section]{foo}{idf}{\listfoo}

\begin{document}

\info{123} \info{ABC} Hello world.

\refstepcounter{foo}
\addcontentsline{idf}{foo}{Hello world.}

\refstepcounter{foo}
\addcontentsline{idf}{foo}{Hello bar.}

\listoffoo

\end{document}
```

The output is as expected:

123 ABC Hello world.

## List of foo

Hello world. . . . . 1  
Hello bar. . . . . 1

In this particular case, I was wondering if it's possible to add a TikZ image to the list entries. I tried to add `\addcontentsline{idf}{foo}{\info{123} \info{ABC} Hello world.}` but it didn't work. I hope to achieve something like this:

`\info{123} \info{ABC}` Hello world.

## List of foo

`\info{123} \info{ABC}` Hello world. . . . . 1  
`\info{123} \info{ABC}` Hello bar. . . . . 1

I also tried the inline `\tikz`, but no success. Probably I'm missing something obvious, or maybe it's trickier than I thought. Any ideas?

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## Answer #1

*Answered by Gonzalo Medina (29.6k) on Jun 18 at 16:30 - Marked as accepted. (4 votes)*

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Simply protect the `\info` commands:

```
\documentclass{article}

\usepackage[titles]{tocloft}
\usepackage{tikz}

\newcommand*\info[1]{%
\begin{tikzpicture}
\node[draw,inner sep=1pt, minimum height=0.2cm, minimum width=0.5cm]
{\tt\tiny #1};
\end{tikzpicture}}

\newcommand{\listfoo}{List of foo}
\newlistof[section]{foo}{idf}{\listfoo}

\begin{document}

\info{123} \info{ABC} Hello world.

\refstepcounter{foo}
\addcontentsline{idf}{foo}{\protect\info{123}\ \protect \info{ABC}\
```

```
Hello world.}
```

```
\refstepcounter{foo}  
\addcontentsline{idf}{foo}{\protect\info{123}\ \protect \info{ABC}\  
Hello bar.}
```

```
\listoffoo
```

```
\end{document}
```

### This answer has 1 comment:

Thanks a lot, Gonzalo! I had no idea of that. It's a very simple and functional solution! =)

*Paulo Cereda on Jun 18 at 16:44 (0 votes)*

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## Answer #2

*Answered by egreg (40.8k) on Jun 18 at 16:32 (2 votes)*

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Define `\info` with `\DeclareRobustCommand` instead of `\newcommand` and say simply

```
\addcontentsline{idf}{foo}{\info{123} \info{ABC} Hello world.}
```

You can also use `\newrobustcmd` from the **etoolbox** package.

It's common to "robustify" commands that get into "moving arguments" such as what goes in the table of contents.

### This answer has 1 comment:

Hm now I understand why we should "robustify" some commands. =) I'll take a look on the `etoolbox` package, it seems pretty interesting. Thanks egreg!

*Paulo Cereda on Jun 18 at 16:48 (0 votes)*

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