

# Adding TikZ code to TOC

Asked by Paulo Cereda (2,254)

Jun 18 at 16:26 (5 votes)

## The question

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:

123 ABC Hello world.

### List of foo

<span style="border: 1px solid black; padding: 0 2px;">123</span>	<span style="border: 1px solid black; padding: 0 2px;">ABC</span>	Hello world. . . . .	1
<span style="border: 1px solid black; padding: 0 2px;">123</span>	<span style="border: 1px solid black; padding: 0 2px;">ABC</span>	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?

## Answer 1

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

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:

1. 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).*

## Answer 2

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

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:

1. 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).