latexindent.pl

Version 3.0

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Abstract

latexindent.pl is a Perl script that indents .tex (and other) files according to an indentation scheme that the user can modify to suit their taste. Environments, including those with alignment delimiters (such as tabular), and commands, including those that can split braces and brackets across lines, are *usually* handled correctly by the script. Options for verbatim-like environments and indentation after headings (such as chapter, section, etc) are also available. The script also has the ability to modifiy line breaks, and add comment symbols.

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*and contributors! (See **??** on page ??.) For all communication, please visit [**latexindent-home**].

0.1 noAdditionalIndent and indentRules

0.1.1 Environments and their arguments

FIX

There are a few different YAML switches governing the indentation of environments; let's start with the simple sample code shown in Listing 1.

LISTING 1: myenv.tex

```
\begin{outer}
\begin{myenv}
  body of environment
body of environment
     body of environment
\end{myenv}
\end{outer}
```

noAdditionalIndent: ⟨*0* | *1* **OR** *fields of 0* | *1*⟩

If we do not wish myenv to receive any additional indentation, we have a few choices available to us, as demonstrated in Listings 2 and 3.

LISTING 2: myenv-noAdd1.yaml

```
1 noAdditionalIndent:
2     myenv: 1
```

LISTING 3: myenv-noAdd2.yaml

```
1 noAdditionalIndent:
2     myenv:
3         body: 1
```

On applying either of the following commands,

```
cmh:~$ latexindent.pl myenv.tex -l myenv-noAdd1.yaml
cmh:~$ latexindent.pl myenv.tex -l myenv-noAdd2.yaml
```

we obtain the output given in Listing 4; note in particular that the environment myenv has not received any *additional* indentation, but that the outer environment *has* still received indentation.

LISTING 4: myenv.tex output (using either Listings 2 and 3)

```
\begin{outer}
  \begin{myenv}
  body of environment
  body of environment
  body of environment
  \end{myenv}
\end{outer}
```

Upon changing the YAML files to those shown in Listings 5 and 6, and running either

```
cmh:~$ latexindent.pl myenv.tex -l myenv-noAdd3.yaml
cmh:~$ latexindent.pl myenv.tex -l myenv-noAdd4.yaml
```

we obtain the output given in Listing 7.

LISTING 5: myenv-noAdd3.yaml

```
1 noAdditionalIndent:
2     myenv: 0
```

LISTING 6: myenv-noAdd4.yaml

```
1 noAdditionalIndent:
2     myenv:
3         body: 0
```

LISTING 7: `myenv.tex` output (using either Listings 5 and 6)

```
\begin{outer}
  \begin{myenv}
    body of environment
    body of environment
    body of environment
  \end{myenv}
\end{outer}
```

Let's now allow `myenv` to have some optional and mandatory arguments, as in Listing 8.

LISTING 8: `myenv-args.tex`

```
\begin{outer}
\begin{myenv}[%
  optional argument text
        optional argument text]%
  { mandatory argument text
 mandatory argument text}
  body of environment
body of environment
     body of environment
\end{myenv}
\end{outer}
```

Upon running

```
cmh:~$ latexindent.pl -l=myenv-noAdd1.yaml myenv-args.tex
```

we obtain the output shown in Listing 9; note that the optional argument, mandatory argument and body *all* have received no additional indent. This is because, when `noAdditionalIndent` is specified in 'scalar' form (as in Listing 2), then *all* parts of the environment (body, optional and mandatory arguments) are assumed to want no additional indent.

LISTING 9: `myenv-args.tex` using Listing 2

```
\begin{outer}
  \begin{myenv}[%
  optional argument text
  optional argument text]%
  { mandatory argument text
  mandatory argument text}
  body of environment
  body of environment
  body of environment
  \end{myenv}
\end{outer}
```

We may customise `noAdditionalIndent` for optional and mandatory arguments of the `myenv` environment, as shown in, for example, Listings 10 and 11.

LISTING 10: `myenv-noAdd5.yaml`

```
1 noAdditionalIndent:
2     myenv:
3         body: 0
4         optionalArguments: 1
5         mandatoryArguments: 0
```

LISTING 11: `myenv-noAdd6.yaml`

```
1 noAdditionalIndent:
2     myenv:
3         body: 0
4         optionalArguments: 0
5         mandatoryArguments: 1
```

Upon running

```
cmh:~$ latexindent.pl myenv.tex -l myenv-noAdd5.yaml
cmh:~$ latexindent.pl myenv.tex -l myenv-noAdd6.yaml
```

we obtain the respective outputs given in Listings 12 and 13. Note that in Listing 12 the text for the *optional* argument has not received any additional indentation, and that in Listing 13 the *mandatory* argument has not received any additional indentation; in both cases, the *body* has not received any additional indentation.

LISTING 12: myenv-args.tex using Listing 10

```
\begin{outer}
  \begin{myenv}[%
    optional argument text
    optional argument text]%
    { mandatory argument text
      mandatory argument text}
    body of environment
    body of environment
    body of environment
  \end{myenv}
\end{outer}
```

LISTING 13: myenv-args.tex using Listing 11

```
\begin{outer}
  \begin{myenv}[%
      optional argument text
      optional argument text]%
    { mandatory argument text
    mandatory argument text}
    body of environment
    body of environment
    body of environment
  \end{myenv}
\end{outer}
```

`indentRules`: ⟨*horizontal space* ***OR*** *fields of horizontal space*⟩

We may also specify indentation rules for environment code blocks using the `indentRules` field; see, for example, Listings 14 and 15.

LISTING 14: myenv-rules1.yaml

```
1 indentRules:
2     myenv: "    "
```

LISTING 15: myenv-rules2.yaml

```
1 indentRules:
2     myenv:
3         body: "    "
```

On applying either of the following commands,

```
cmh:~$ latexindent.pl myenv.tex -l myenv-rules1.yaml
cmh:~$ latexindent.pl myenv.tex -l myenv-rules2.yaml
```

we obtain the output given in Listing 16; note in particular that the environment `myenv` has not received any *additional* indentation, but that the `outer` environment *has* still received indentation.

LISTING 16: myenv.tex output (using either Listings 14 and 15)

```
\begin{outer}
  \begin{myenv}
     body of environment
     body of environment
     body of environment
  \end{myenv}
\end{outer}
```

If you specify a field in `indentRules` using anything other than horizontal space, it will be ignored.

Let's now return to the example in Listing 8 that contains optional and mandatory arguments. Upon using Listing 14 as in

```
cmh:~$ latexindent.pl myenv-args.tex -l=myenv-rules1.yaml
```

we obtain the output in Listing 17; note that the body, optional argument and mandatory argument have *all* received the same customised indentation.

LISTING 17: myenv-args.tex using Listing 14

```
\begin{outer}
  \begin{myenv}[%
        optional argument text
        optional argument text]%
     { mandatory argument text
        mandatory argument text}
     body of environment
     body of environment
     body of environment
  \end{myenv}
\end{outer}
```

You can specify different indentation rules for the different features using, for example, Listings 18 and 19

LISTING 18: myenv-rules3.yaml

```
1 indentRules:
2     myenv:
3         body: "    "
4         optionalArguments: " "
```

LISTING 19: myenv-rules4.yaml

```
1 indentRules:
2     myenv:
3         body: "    "
4         mandatoryArguments: "\t\t"
```

After running

```
cmh:~$ latexindent.pl myenv-args.tex -l myenv-rules3.yaml
cmh:~$ latexindent.pl myenv-args.tex -l myenv-rules4.yaml
```

then we obtain the respective outputs given in Listings 20 and 21.

LISTING 20: myenv-args.tex using Listing 18

```
\begin{outer}
  \begin{myenv}[%
      optional argument text
      optional argument text]%
     { mandatory argument text
       mandatory argument text}
     body of environment
     body of environment
     body of environment
  \end{myenv}
\end{outer}
```

LISTING 21: myenv-args.tex using Listing 19

```
\begin{outer}
  \begin{myenv}[%
        optional argument text
        optional argument text]%
     { mandatory argument text
         mandatory argument text}
     body of environment
     body of environment
     body of environment
  \end{myenv}
\end{outer}
```

Note that in Listing 20, the optional argument has only received a single space of indentation, while the mandatory argument has received the default (tab) indentation; the environment body has received three spaces of indentation.

In Listing 21, the optional argument has received the default (tab) indentation, the mandatory argument has received two tabs of indentation, and the body has received three spaces of indentation.

`noAdditionalIndentGlobal`: ⟨*fields*⟩

Assuming that your environment name is not found within neither `noAdditionalIndent` nor `indentRules`, the next place that `latexindent.pl` will look is `noAdditionalIndentGlobal`, and

LISTING 22: env-noAdditionalGlobal.yaml

```
240 noAdditionalIndentGlobal:
241     environments: 0
```

in particular *for the environments* key (see Listing 22). Let's say that you change the value of `environments` to 1 in Listing 22, and that you run

```
cmh:~$ latexindent.pl myenv-args.tex -l env-noAdditionalGlobal.yaml
cmh:~$ latexindent.pl myenv-args.tex -l myenv-rules1.yaml,env-noAdditionalGlobal.yaml
```

The respective output from these two commands are in Listings 23 and 24; in Listing 23 notice that *both* environments receive no additional indentation but that the arguments of `myenv` still *do* receive indentation. In Listing 24 notice that the *outer* environment does not receive additional indentation, but because of the settings from `myenv-rules1.yaml`, the `myenv` environment still *does* receive indentation.

LISTING 23: myenv-args.tex

```
\begin{outer}
\begin{myenv}[%
  optional argument text
  optional argument text]%
{ mandatory argument text
  mandatory argument text}
body of environment
body of environment
body of environment
\end{myenv}
\end{outer}
```

LISTING 24: myenv-args.tex

```
\begin{outer}
\begin{myenv}[%
      optional argument text
      optional argument text]%
   { mandatory argument text
      mandatory argument text}
   body of environment
   body of environment
   body of environment
\end{myenv}
\end{outer}
```

`indentRulesGlobal`: ⟨*fields*⟩

The final check that `latexindent.pl` will make is to look for `indentRules` as detailed in Listing 25; if you change the `environments` field to anything involving horizontal space, say `" "`, and then run the following commands

LISTING 25: env-indentRulesGlobal.yaml

```
256 indentRulesGlobal:
257     environments: 0
```

```
cmh:~$ latexindent.pl  myenv-args.tex -l env-indentRules.yaml
cmh:~$ latexindent.pl  myenv-args.tex -l myenv-rules1.yaml,env-indentRules.yaml
```

then the respective output is shown in Listings 26 and 27. Note that in Listing 26, both the environment blocks have received a single-space indentation, whereas in Listing 27 the `outer` environment has received single-space indentation (specified by `indentRulesGlobal`), but `myenv` has received `"  "`, as specified by Listing 14 on page 4.

LISTING 26: myenv-args.tex

```
\begin{outer}
 \begin{myenv}[%
    optional argument text
    optional argument text]%
  { mandatory argument text
    mandatory argument text}
  body of environment
  body of environment
  body of environment
 \end{myenv}
\end{outer}
```

LISTING 27: myenv-args.tex

```
\begin{outer}
 \begin{myenv}[%
       optional argument text
       optional argument text]%
    { mandatory argument text
       mandatory argument text}
    body of environment
    body of environment
    body of environment
 \end{myenv}
\end{outer}
```