

The `switchcase` package*

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1 Introduction

The `switchcase` package provides a simple interface for switch-case structures in LaTeX, built on top of the powerful `expl3` programming layer.

2 Usage

`\Switch` The `\Switch` command performs a string-based case selection.

```
\Switch{\(string)}{\(cases)}[\(default)]
```

The `\(cases)` should be provided as a sequence of alternating values and code blocks:
`\{val1\}{code1}\{val2\}{code2}\dots`.

`\IntSwitch` The `\IntSwitch` command performs an integer-based case selection.

```
\IntSwitch{\(integer)}{\(cases)}[\(default)]
```

`\SwitchEnv` The `\SwitchEnv` environment allows for a more readable switch-case structure.
Inside the environment, use `\Case` to define cases and `\Default` for the fallback.

```
\begin{SwitchEnv}{\(string)}
\Case{\(val1)}{\(code1)}
\Case{\(val2)}{\(code2)}
\Default{\(default code)}
\end{SwitchEnv}
```

3 Implementation

```
1 /*package*/
\Switch A LaTeX2e wrapper for \str_case:nnF.
2 \NewDocumentCommand{\Switch}{m m O{}}
3   \str_case:nnF {#1} {#2} {#3}
4 }
```

*This document corresponds to `switchcase ?`, dated ?.

```

\IntSwitch A LaTeX2e wrapper for \int_case:nnF.
5 \NewDocumentCommand{\IntSwitch}{m m O{} }{
6     \int_case:nnF {#1} {#2} {#3}
7 }

\Case Appends a case to the current list of cases.
8 \NewDocumentCommand{\Case}{m m }{
9     \tl_put_right:Nn \l_switchcase_cases_tl { {#1}{#2} }
10 }

\Default Sets the default code to execute if no case matches.
11 \NewDocumentCommand{\Default}{m }{
12     \tl_set:Nn \l_switchcase_default_tl { #1 }
13 }

\SwitchEnv Environment wrapper for a string-based switch-case selection.
14 \NewDocumentEnvironment{\SwitchEnv}{m }{
15     \tl_set:Nn \l_switchcase_input_tl {#1}
16     \tl_clear:N \l_switchcase_cases_tl
17     \tl_clear:N \l_switchcase_default_tl
18 }{
19     \exp_args:NVV \str_case:nnF \l_switchcase_input_tl \l_switchcase_cases_tl { \l_switchcase_d
20 }

21 </package>

```