Package ‘ox’

October 14, 2022

Type Package

Title Shorthand if-Else

Version 0.1.0

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Description Short hand if-else function to easily switch the values depending
on a logical condition.

License GPL (>= 2)

BugReports https://github.com/gogonzo/ox/issues

Encoding UTF-8

Language en-US

Depends R (>= 3.0)

Suggests checkmate, dplyr, magrittr, knitr, rmarkdown, testthat, utils

RoxygenNote 7.1.2

VignetteBuilder knitr

NeedsCompilation no

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Repository CRAN

Date/Publication 2021-12-15 09:00:02 UTC

R topics documented:

`ox` *Short hand if-else*

Description

Short hand if-else functions for simple values switching.

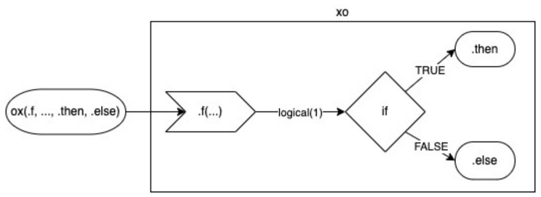
Usage

```
ox(.f, ..., .then = list(...)[[1]], .else = rev(list(...))[[1]])

xo(.f, ..., .then = list(...)[[1]], .else = rev(list(...))[[1]])
```

Arguments

`.f`	`(function)` to be applied on `...`. Must return single logical value.
`...`	arguments passed to the `.f`.
`.then`	A positive-replacement. NOTE, that if `.then` is not specified directly by named argument then the first argument from `...` will be taken.
`.else`	A negative-replacement. NOTE, that if `.else` is not specified directly by named argument then the last argument from `...` will be considered as a replacement.

Details



`ox` evaluates function `.f` which returns a single logical value and depending on the result `ox` returns:

- on `TRUE` returns `.then`.
- on `FALSE` returns `.else`.

It's important to note is that `.then` and `.else` have a default values set as the first and the last element of the `...`. This means that they don't have to be specified if both are arguments of `.f`.
If any of them are not arguments of `.f` then this argument should be specified directly as `.then` or `.else`, otherwise it will be passed to the function.

As, far as `.then` and `.else` won't be specified order of arguments in `...` matters for `ox` but it's up to you if they are passed in the correct order to the `.f`. Then one, might consider name the argument so `.f` will be executed as expected. Consider following example

```
greater_than_by <- function(x, y, by) x > (y + by)
ox(greater_than_by, x = 5, by = 3, y = 3)
```

In above, one needs to move `y` to the end so that it will be considered as `.else`.

To invert the switch one can use `xo` which is equivalent of `ox(Negate(.f), ..., .then, .else)`.

Value

object identical to `.then` or `.else` depending on the condition result.

Examples

```
# if (is.null(NULL)) NULL else 1
ox(NULL, .f = is.null, .else = 1)

# if (is("text", "character")) "text" else "not a character"
ox("text", .f = is, "character", .else = "not a character")

# if (1 > 2) 1 else 2
ox(`>`, 1, 2)
# if (!is.null(NULL)) NULL else 1
xo(NULL, .f = is.null, .else = 1)

# if (!is("text", "character")) "text" else "not a character"
xo("text", .f = is, "character", .else = "not a character")

# if (!1 > 2) 1 else 2
xo(`>`, 1, 2)
```

`vectorized-ox` *Vectorized* `ox`

Description

Switch the values of the vector by another on specific indices.

Usage

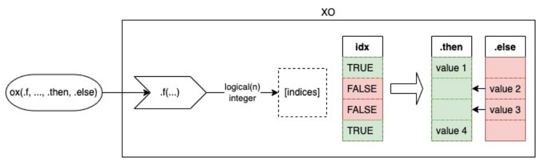
```
OX(.f, ..., .then = list(...)[[1]], .else = rev(list(...))[[1]])

XO(.f, ..., .then = list(...)[[1]], .else = rev(list(...))[[1]])
```

Arguments

`.f`	(`function`) evaluated as `.f(...)`. Must return a vector of indices (`logical` or `integer`), which defines which values will be replaced by `.else`.
`...`	arguments passed to the `.f`.
`.then`	(`list`, `atomic`, `NULL`) A positive-replacement. NOTE, that if `.then` is not specified directly by named argument then the first argument from `...` will be taken.

`.else`	(`list`, `atomic`, `NULL`) A negative-replacement. Should be of length equal to length of `.then`, or single value or `NULL`. NOTE, that if `.else` is not specified directly by named argument then the last argument from `...` will be considered as a replacement.

Details



#' `OX` evaluates function `.f` which returns a vector of indices which are then decide which values of `.then` are replaced by `else`.

```
.then[!idx] <- .else[!idx]
```

Consequence of above is that `idx = .f(...)` should be a `logical` vector or `integer` vector which would be valid indices for `.then` and `.else`. This means that `.then` and `.else` should be of the same length, but there are two exceptions:

- when `.else` is a single value, than this value will replace `.then` at returned indices `.then[!idx] <- .else`
- when `.else` is `NULL`

To invert the switch one can use `XO` which is equivalent of `OX(Negate(.f), ..., .then, .else)`.

Value

`atomic` or `list`. Returned object is a `.then` object with elements replaced by `.else` depending on a result of the logical condition.

Examples

```
# switch values of the vector when condition is true
OX(is.na, c(1, NA, 3), .else = c(2, 2, 2))

# use OX to invert negate the condition
XO(is.na, c(1, NA, 3), .else = c(2, 2, 2))
```

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