

# Scoped verbs

## Suffixes

suffix	use when
_all	you want to apply the verb to all columns
_at	you want to apply the verb to specified columns
_if	you want to apply the verb to all the columns with some property

## Examples

**`mutate()` , `summarize()` , `select()` , and `rename()`**

### Named functions

Verb	Example	Example explanation
summarize_all	summarize_all(mean)	finds the mean of all variables
summarize_at	summarize_at(vars(x, y), mean)	finds the mean of variables x and y
summarize_if	summarize_if(is.double, mean)	finds the mean of all double variables
mutate_all	mutate_all(as.character)	converts all variables to characters
mutate_at	mutate_at(vars(x, y), as.character)	converts variables x and y to characters
mutate_if	mutate_if(is.factor, as.character)	converts all factor variables to characters
rename_all	rename_all(str_to_lower)	changes all column names to lowercase
rename_at	rename_at(vars(X, Y), str_to_lower)	changes the names of columns X and Y to x and y
rename_if	rename_if(is.double, str_to_lower)	changes the names of double columns to lowercase
select_all	select_all(str_to_lower)	selects all columns and changes their names to lowercase (better to use rename_all())
select_at	select_at(vars(X, Y), str_to_lower)	selects just columns X and Y and changes their names to x and y
select_if	select_if(is.double, str_to_lower)	selects just double columns and changes their names to lowercase

## Extra arguments

verb	example	example_explanation
summarize_if	summarize_if(is.double, mean, na.rm = TRUE)	finds the mean, excluding NAs, of all double variables
summarize_all	summarize_all(mean, trim = 0.1, na.rm = TRUE)	finds the mean of all variables, excluding NAs. Removes the bottom and top 10% of values of each variable before computing mean

## Anonymous functions

verb	example	example_explanation
summarize_all	summarize_all(~ sum(is.na(.)))	determines the number of NAs in each column
select_if	select_if(~ n_distinct(.) > 1)	selects only the columns with more than one distinct value

## filter()

verb	example	example_explanation
filter_all	filter_all(all_vars(!is.na(.)))	finds rows without any NAs
filter_all	filter_all(any_vars(!is.na(.)))	finds rows with at least one non-NA value
filter_at	filter_at(vars(x, y), all_vars(!is.na(.)))	finds rows where both x and y are non-NA
filter_at	filter_at(vars(x, y), any_vars(!is.na(.)))	finds rows where at least one of x and y is non-NA
filter_if	filter_if(is.double, all_vars(!is.na(.)))	finds rows where all double variables are non-NA
filter_if	filter_if(is.double, any_vars(!is.na(.)))	finds rows where at least one double variable is non-NA