

Package: tidyformula (via r-universe)

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Title Build Formulas Using Tidy Selection Helpers

Version 0.1.0

Description Provides the function 'tidyformula()', which translates formulas containing 'tidyselect'-style selection helpers. It expands these helpers by evaluating 'dplyr::select()' with the relevant selection helper and a supplied data frame. The package contains methods for traversing abstract syntax trees from Wickham, Hadley (2019) <doi:10.1201/9781351201315>.

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Imports dplyr, purrr, rlang, stats

Suggests testthat (>= 3.0.0)

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Repository <https://cranhaven.r-universe.dev>

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`tidyformula`*Build a formula using tidyselect-style selection helpers*

Description

`tidyformula()` translates formulas containing tidyselect-style [selection helpers](#), expanding these helpers by evaluating `dplyr::select()` with the relevant selection helper and a supplied data frame.

When the selection helper appears as the first argument of a function, that function is distributed across the sum of the selected variables.

Usage

```
tidyformula(  
  formula,  
  data,  
  select_helpers = .select_helpers,  
  nodistribute = c("+", "-", "*", "^"),  
  env = rlang::caller_env()  
)
```

Arguments

<code>formula</code>	An object of class formula . Can contain selection helpers to be expanded.
<code>data</code>	A data frame whose column names should be used for selection
<code>select_helpers</code>	A character vector. The names of selection helpers to be matched and substituted.
<code>nodistribute</code>	A character vector. Functions with these names are not distributed over selection helpers.
<code>env</code>	The environment to associate with the result.

Value

An object of class [formula](#), which is a translation of the argument `formula` in which the selection helpers are replaced with the corresponding variables of `data`.

Examples

```
df <- data.frame(  
  x1 = rnorm(5),  
  x2 = rnorm(5),  
  x3 = rnorm(5),  
  y = rnorm(5)  
)  
  
tidyformula(y ~ num_range("x", 1:2) + z, data = df)
```

```
#> y ~ x1 + x2 + z
#> <environment: 0x000001e0d7d53910>
```

```
tidyformula(y ~ poly(starts_with("x"), 3), data = df)
#> y ~ poly(x1, 3) + poly(x2, 3) + poly(x3, 3)
#> <environment: 0x000001e0d7d53910>
```

```
tidyformula(~ everything() * contains("x"), data = df)
#> ~(x1 + x2 + x3 + y) * (x1 + x2 + x3)
#> <environment: 0x000001e0d7d53910>
```

Interaction operators are typically not distributed, but this behaviour can be changed.

```
tidyformula(y ~ starts_with("x")^2, data = df)
#> y ~ (x1 + x2 + x3)^2
#> <environment: 0x000001e0d7d53910>
```

```
tidyformula(y ~ starts_with("x")^2, data = df, nodistribute = c("+", "-"))
#> y ~ x1^2 + x2^2 + x3^2
#> <environment: 0x000001e0d7d53910>
```

See Also

[dplyr::select\(\)](#), [tidyselect::language](#) for documentation of selection helpers.

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