

# Package: codeUtils (via r-universe)

September 19, 2024

**Type** Package

**Title** Helper functions for parsing and classifying R code. Useful for domain specific languages.

**Version** 0.1

**Date** 2014-12-03

**Author** Sebastian Kranz

**Maintainer** Sebastian Kranz <sebastian.kranz@uni-ulm.de>

**Description** Very preliminary. May completely change

**License** GPL >= 2.0

**Depends** roxygenpoint

**RoxygenNote** 5.0.0

**Repository** <https://skranz.r-universe.dev>

**RemoteUrl** <https://github.com/skranz/codeUtils>

**RemoteRef** master

**RemoteSha** 05d485967061867c3c5141fa775273223b11d324

## Contents

call.size . . . . .	2
count.variables . . . . .	2
extract.var.with.index . . . . .	3
find.funs . . . . .	3
find.global.vars . . . . .	3
find.multiple.variables . . . . .	4
find.variables . . . . .	4
get.lhs . . . . .	4
get.rhs . . . . .	5
is.assignment . . . . .	5
make.call . . . . .	5
recursively.replace . . . . .	5
strip.parentheses . . . . .	6
subst.var . . . . .	6
substitute.call . . . . .	6

**Index****call.size***Find the number of functions and variables (counting multiplies) in a call***Description**

Find the number of functions and variables (counting multiplies) in a call

**Usage**

```
call.size(call)
```

**Arguments**

**call**                   the call whose size shall be determined

**Value**

an integer of this size

**count.variables***Count all variables appearances of each variable in a call or expression object***Description**

Count all variables appearances of each variable in a call or expression object

**Usage**

```
count.variables(call)
```

**Arguments**

**a**                   call object

**Value**

table that counts variable names

---

```
extract.var.with.index
```

*extracts from a call expression its variable and its index*

---

### Description

extracts from a call expression its variable and its index

### Usage

```
extract.var.with.index(call, as.character = FALSE)
```

---

```
find.funs
```

*Find all function calls from a call or expression object*

---

### Description

Find all function calls from a call or expression object

### Usage

```
find.funs(call, max.level = Inf, level = 1)
```

### Value

unique names of called functions as character vector

---

```
find.global.vars
```

*Find all globale variables in a function*

---

### Description

just a wrapper to codetools::findGlobals

### Usage

```
find.global.vars(fun)
```

`find.multiple.variables`

*Find all variables from a call or expression object. If a variable appears n times, it is returned n times*

### Description

Find all variables from a call or expression object. If a variable appears n times, it is returned n times

### Usage

`find.multiple.variables(call)`

### Arguments

`a` call object

### Value

variables names (possibly duplicated) as character vector

`find.variables`

*Find all variables from a call or expression object*

### Description

Find all variables from a call or expression object

### Usage

`find.variables(call)`

### Value

unique variables names as character vector

`get.lhs`

*get lhs of an assignment*

### Description

get lhs of an assignment

### Usage

`get.lhs(call)`

---

get.rhs	<i>get rhs of an assignment</i>
---------	---------------------------------

---

**Description**

get rhs of an assignment

**Usage**

get.rhs(call)

---

is.assignment	<i>check if a call is an assignment</i>
---------------	---

---

**Description**

check if a call is an assignment

**Usage**

is.assignment(call)

---

make.call	<i>Creates a call with name name and arguments in arg.list</i>
-----------	--

---

**Description**

Creates a call with name name and arguments in arg.list

**Usage**

make.call(name, arg.list, use.names = !is.null(names(arg.list)))

---

recursively.replace	<i>Recursively replace elements of a call or list</i>
---------------------	---

---

**Description**

Recursively replace elements of a call or list

**Usage**

recursively.replace(call, replace.fun)

`strip.parentheses`      *strip a call object from outer parentheses*

### Description

strip a call object from outer parentheses

### Usage

```
strip.parentheses(call, parentheses = "(")
```

`subst.var`      *Substitute a variable or a symbol in the expression by subs*

### Description

Substitute a variable or a symbol in the expression by subs

### Usage

```
subst.var(call, var, subs, subset = TRUE)
```

### Arguments

<code>call</code>	a call object or string
<code>var</code>	a symbol or string
<code>subs</code>	a call or string

`substitute.call`      *substitutes in a call object x (works like substitute2 in pryr)*

### Description

substitutes in a call object x (works like substitute2 in pryr)

### Usage

```
substitute.call(x, env)
```

# Index

call.size, 2  
count.variables, 2  
  
extract.var.with.index, 3  
  
find.funs, 3  
find.global.vars, 3  
find.multiple.variables, 4  
find.variables, 4  
  
get.lhs, 4  
get.rhs, 5  
  
is.assignment, 5  
  
make.call, 5  
  
recursively.replace, 5  
  
strip.parentheses, 6  
subst.var, 6  
substitute.call, 6