

# Package ‘radiant’

December 8, 2015

**Title** Business Analytics using R and Shiny

**Version** 0.4.01

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**Description** A platform-independent browser-based interface for business analytics in R, based on the Shiny package.

**Depends** R (>= 3.2.0),  
magrittr (>= 1.5),  
ggplot2 (>= 1.0.0),  
lubridate (>= 1.3.3),  
tidyr (>= 0.3.1),  
dplyr (>= 0.4.3)

**Imports** DiagrammeR(>= 0.7),  
car (>= 2.0.22),  
MASS (>= 7.3),  
gridExtra (>= 2.0.0),  
AlgDesign (>= 1.1.7.3),  
psych (>= 1.4.8.11),  
GPArotation (>= 2014.11.1),  
wordcloud (>= 2.5),  
markdown (>= 0.7.4),  
knitr (>= 1.8),  
ggdendro (>= 0.1.17),  
broom (>= 0.3.7),  
pryr (>= 0.1),  
shiny (>= 0.12.2),  
shinyAce (>= 0.2.1),  
DT (>= 0.1.39),  
MathJaxR (>= 0.11),  
readr (>= 0.1.1),  
data.tree(>= 0.2.1),  
yaml(>= 2.1.13),  
scales(>= 0.2.5),  
curl(>= 0.9.1),  
stringr (>= 1.0)

**Suggests** rmarkdown (>= 0.4.2),  
devtools (>= 1.8.0),  
testthat (>= 0.10.0),  
covr (>= 1.2.0)

**URL** <https://github.com/vnijs/radiant>, <http://vnijs.github.io/radiant/>

**BugReports** <https://github.com/vnijs/radiant/issues>

**License** AGPL-3 | file LICENSE

**LazyData** true

## R topics documented:

as_character	6
as_distance	6
as_dmy	7
as_dmy_hm	7
as_dmy_hms	8
as_duration	8
as_factor	9
as_hm	9
as_hms	10
as_integer	10
as_mdy	11
as_mdy_hm	11
as_mdy_hms	12
as_numeric	12
as_ymd	13
as_ymd_hm	13
as_ymd_hms	14
avengers	14
center	15
changedata	15
city	16
ci_label	16
ci_perc	17
clean_loadings	17
combinedata	18
compare_means	19
compare_props	20
computer	21
conjoint	21
conjoint_profiles	22
copy_all	23
copy_from	23
copy_imported	24
correlation	24
cross_tabs	25
cv	26
decile_split	26
diamonds	27
does_vary	27
dtree	28
dtree_parser	28
explore	29
factorizer	30

ff_design . . . . .	30
filterdata . . . . .	31
find_max . . . . .	31
find_min . . . . .	32
flip . . . . .	32
full_factor . . . . .	33
getclass . . . . .	34
getdata . . . . .	34
getsummary . . . . .	35
glm_reg . . . . .	35
goodness . . . . .	36
hier_clus . . . . .	37
inverse . . . . .	38
is_empty . . . . .	38
is_string . . . . .	39
iterms . . . . .	40
kmeans_clus . . . . .	40
kurtosi . . . . .	41
launcher . . . . .	41
lin_launcher . . . . .	42
ln . . . . .	42
loadcsv . . . . .	43
loadcsv_url . . . . .	43
loadrda . . . . .	44
loadrda_url . . . . .	44
mac_launcher . . . . .	45
make_dt . . . . .	45
make_expl . . . . .	46
make_funs . . . . .	47
make_train . . . . .	47
max_rm . . . . .	48
mds . . . . .	48
mean_rm . . . . .	49
median_rm . . . . .	50
median_split . . . . .	50
min_rm . . . . .	51
mode_rm . . . . .	51
mp3 . . . . .	52
mutate_each . . . . .	52
newspaper . . . . .	53
normalize . . . . .	53
n_missing . . . . .	54
p05 . . . . .	54
p25 . . . . .	55
p75 . . . . .	55
p95 . . . . .	56
pivotr . . . . .	56
plot.compare_means . . . . .	57
plot.compare_props . . . . .	58
plot.conjoint . . . . .	58
plot.correlation_ . . . . .	59
plot.cross_tabs . . . . .	60

plot.dtree . . . . .	61
plot.full_factor . . . . .	61
plot.glm_predict . . . . .	62
plot.glm_reg . . . . .	63
plot.goodness . . . . .	64
plot.hier_clus . . . . .	65
plot.kmeans_clus . . . . .	66
plot.mds . . . . .	66
plot.pivotr . . . . .	67
plot.pmap . . . . .	68
plot.pre_factor . . . . .	69
plot.prob_binom . . . . .	69
plot.prob_chisq . . . . .	70
plot.prob_disc . . . . .	70
plot.prob_fdist . . . . .	71
plot.prob_norm . . . . .	71
plot.prob_tdist . . . . .	72
plot.prob_unif . . . . .	72
plot.regression . . . . .	73
plot.reg_predict . . . . .	74
plot.repeater . . . . .	75
plot.simulater . . . . .	75
plot.single_mean . . . . .	76
plot.single_prop . . . . .	77
pmap . . . . .	78
predict.glm_reg . . . . .	79
predict.regression . . . . .	80
pre_factor . . . . .	81
print.gtable . . . . .	81
prob_binom . . . . .	82
prob_chisq . . . . .	83
prob_disc . . . . .	83
prob_fdist . . . . .	84
prob_norm . . . . .	84
prob_tdist . . . . .	85
prob_unif . . . . .	85
publishers . . . . .	86
radiant . . . . .	86
recode . . . . .	87
regression . . . . .	87
repeater . . . . .	88
rndnames . . . . .	88
sample_size . . . . .	89
sampling . . . . .	90
save_factors . . . . .	90
save_membership . . . . .	91
sdp_rm . . . . .	92
sdw . . . . .	92
sd_rm . . . . .	93
serr . . . . .	93
set_class . . . . .	94
shopping . . . . .	94

show_duplicated	94
sig_stars	95
simulator	96
sim_cleaner	97
sim_splitter	98
sim_summary	98
single_mean	99
single_prop	100
skew	100
square	101
sshh	101
sshhr	102
standardize	102
state_init	103
state_multiple	104
state_single	105
store_glm	106
store_reg	106
summary.compare_means	107
summary.compare_props	108
summary.conjoint	108
summary.conjoint_profiles	109
summary.correlation_	110
summary.cross_tabs	110
summary.dtree	111
summary.explore	112
summary.full_factor	112
summary.glm_reg	113
summary.goodness	114
summary.hier_clus	115
summary.kmeans_clus	115
summary.mds	116
summary.pivotr	117
summary.pmap	118
summary.pre_factor	118
summary.prob_binom	119
summary.prob_chisq	120
summary.prob_disc	120
summary.prob_fdist	121
summary.prob_norm	121
summary.prob_tdist	122
summary.prob_unif	122
summary.regression	123
summary.repeater	124
summary.sample_size	124
summary.sampling	125
summary.simulator	126
summary.single_mean	126
summary.single_prop	127
sum_rm	128
superheroes	128
test_specs	129

the_table . . . . .	129
titanic . . . . .	130
titanic_pred . . . . .	130
toothpaste . . . . .	131
varp_rm . . . . .	131
var_check . . . . .	132
var_rm . . . . .	132
viewdata . . . . .	133
visualize . . . . .	133
win_launcher . . . . .	135

## Index 136

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as_character	<i>Wrapper for as.character</i>
--------------	---------------------------------

---

### Description

Wrapper for as.character

### Usage

```
as_character(x)
```

### Arguments

x	Input vector
---	--------------

---

as_distance	<i>Distance in kilometers or miles between two locations based on lat-long Function based on <a href="http://www.movable-type.co.uk/scripts/latlong.html">http://www.movable-type.co.uk/scripts/latlong.html</a>. Uses the haversine formula</i>
-------------	--

---

### Description

Distance in kilometers or miles between two locations based on lat-long Function based on <http://www.movable-type.co.uk/scripts/latlong.html>. Uses the haversine formula

### Usage

```
as_distance(lat1, long1, lat2, long2, unit = "km", R = c(km = 6371, miles = 3959)[[unit]])
```

### Arguments

lat1	Latitude of location 1
long1	Longitude of location 1
lat2	Latitude of location 2
long2	Longitude of location 2
unit	Measure kilometers ("km", default) or miles ("miles")
R	Radius of the earth

**Value**

Distance bewteen two points

**Examples**

```
as_distance(32.8245525,-117.0951632, 40.7033127,-73.979681, unit = "km")
as_distance(32.8245525,-117.0951632, 40.7033127,-73.979681, unit = "miles")
```

---

**as\_dmy***Convert input in day-month-year format to date*

---

**Description**

Convert input in day-month-year format to date

**Usage**

```
as_dmy(x)
```

**Arguments**

x                      Input variable

**Value**

Date variable of class Date

**Examples**

```
as_dmy("1-2-2014")
```

---

**as\_dmy\_hm***Convert input in day-month-year-hour-minute format to date-time*

---

**Description**

Convert input in day-month-year-hour-minute format to date-time

**Usage**

```
as_dmy_hm(x)
```

**Arguments**

x                      Input variable

**Value**

Date-time variable of class Date

**Examples**

```
as_mdy_hm("1-1-2014 12:15")
```

---

as_dmy_hms	<i>Convert input in day-month-year-hour-minute-second format to date-time</i>
------------	---

---

**Description**

Convert input in day-month-year-hour-minute-second format to date-time

**Usage**

```
as_dmy_hms(x)
```

**Arguments**

x	Input variable
---	----------------

**Value**

Date-time variable of class Date

**Examples**

```
as_dmy_hms("1-1-2014 12:15:01")
```

---

as_duration	<i>Wrapper for lubridate's as.duration function. Result converted to numeric</i>
-------------	--

---

**Description**

Wrapper for lubridate's as.duration function. Result converted to numeric

**Usage**

```
as_duration(x)
```

**Arguments**

x	Time difference
---	-----------------



---

as_factor	<i>Wrapper for as.factor</i>
-----------	------------------------------

---

**Description**

Wrapper for as.factor

**Usage**

```
as_factor(x)
```

**Arguments**

x	Input vector
---	--------------

---

as_hm	<i>Convert input in hour-minute format to time</i>
-------	--

---

**Description**

Convert input in hour-minute format to time

**Usage**

```
as_hm(x)
```

**Arguments**

x	Input variable
---	----------------

**Value**

Time variable of class Period

**Examples**

```
as_hm("12:45")  
## Not run:  
as_hm("12:45") %>% minute  
  
## End(Not run)
```

---

as_hms	<i>Convert input in hour-minute-second format to time</i>
--------	---

---

**Description**

Convert input in hour-minute-second format to time

**Usage**

```
as_hms(x)
```

**Arguments**

x	Input variable
---	----------------

**Value**

Time variable of class Period

**Examples**

```
as_hms("12:45:00")
## Not run:
as_hms("12:45:00") %>% hour
as_hms("12:45:00") %>% second

## End(Not run)
```

---

as_integer	<i>Convert variable to integer avoiding potential issues with factors</i>
------------	---

---

**Description**

Convert variable to integer avoiding potential issues with factors

**Usage**

```
as_integer(x)
```

**Arguments**

x	Input variable
---	----------------

**Value**

Integer

**Examples**

```
as_integer(rnorm(10))
as_integer(letters)
as_integer(5:10 %>% as.factor)
as.integer(5:10 %>% as.factor)
```

---

as_mdy	<i>Convert input in month-day-year format to date</i>
--------	---

---

**Description**

Convert input in month-day-year format to date

**Usage**

```
as_mdy(x)
```

**Arguments**

x	Input variable
---	----------------

**Details**

Use as.character if x is a factor

**Value**

Date variable of class Date

**Examples**

```
as_mdy("2-1-2014")
## Not run:
as_mdy("2-1-2014") %>% month(label = TRUE)
as_mdy("2-1-2014") %>% week
as_mdy("2-1-2014") %>% wday(label = TRUE)

## End(Not run)
```

---

as_mdy_hm	<i>Convert input in month-day-year-hour-minute format to date-time</i>
-----------	--

---

**Description**

Convert input in month-day-year-hour-minute format to date-time

**Usage**

```
as_mdy_hm(x)
```

**Arguments**

x	Input variable
---	----------------

**Value**

Date-time variable of class Date

**Examples**

```
as_mdy_hm("1-1-2014 12:15")
```

---

as_mdy_hms	<i>Convert input in month-day-year-hour-minute-second format to date-time</i>
------------	---

---

**Description**

Convert input in month-day-year-hour-minute-second format to date-time

**Usage**

```
as_mdy_hms(x)
```

**Arguments**

x	Input variable
---	----------------

**Value**

Date-time variable of class Date

**Examples**

```
as_mdy_hms("1-1-2014 12:15:01")
```

---

as_numeric	<i>Convert variable to numeric avoiding potential issues with factors</i>
------------	---

---

**Description**

Convert variable to numeric avoiding potential issues with factors

**Usage**

```
as_numeric(x)
```

**Arguments**

x	Input variable
---	----------------

**Value**

Numeric

**Examples**

```
as_numeric(rnorm(10))
as_numeric(letters)
as_numeric(5:10 %>% as.factor)
as_numeric(5:10 %>% as.factor)
as_numeric(c("1", "2"))
```

---

as_ymd	<i>Convert input in year-month-day format to date</i>
--------	---

---

**Description**

Convert input in year-month-day format to date

**Usage**

```
as_ymd(x)
```

**Arguments**

x	Input variable
---	----------------

**Value**

Date variable of class Date

**Examples**

```
as_ymd("2013-1-1")
```

---

as_ymd_hm	<i>Convert input in year-month-day-hour-minute format to date-time</i>
-----------	--

---

**Description**

Convert input in year-month-day-hour-minute format to date-time

**Usage**

```
as_ymd_hm(x)
```

**Arguments**

x	Input variable
---	----------------

**Value**

Date-time variable of class Date

**Examples**

```
as_ymd_hm("2014-1-1 12:15")
```

---

as_ymd_hms	<i>Convert input in year-month-day-hour-minute-second format to date-time</i>
------------	---

---

**Description**

Convert input in year-month-day-hour-minute-second format to date-time

**Usage**

```
as_ymd_hms(x)
```

**Arguments**

x	Input variable
---	----------------

**Value**

Date-time variable of class Date

**Examples**

```
as_ymd_hms("2014-1-1 12:15:01")
## Not run:
as_ymd_hms("2014-1-1 12:15:01") %>% as.Date
as_ymd_hms("2014-1-1 12:15:01") %>% month
as_ymd_hms("2014-1-1 12:15:01") %>% hour

## End(Not run)
```

---

avengers	<i>Avengers</i>
----------	-----------------

---

**Description**

Avengers

**Usage**

```
data(avengers)
```

**Format**

A data frame with 7 rows and 4 variables

**Details**

List of avengers. The dataset is used to illustrate data merging / joining. Description provided in `attr(avengers,"description")`

---

center	<i>Center</i>
--------	---------------

---

**Description**

Center

**Usage**

```
center(x)
```

**Arguments**

x	Input variable
---	----------------

**Value**

If x is a numeric variable return  $x - \text{mean}(x)$

---

changedata	<i>Change data</i>
------------	--------------------

---

**Description**

Change data

**Usage**

```
changedata(dataset, vars = c(), var_names = names(vars))
```

**Arguments**

dataset	Name of the dataframe to change
vars	New variables to add to the data.frame
var_names	Names for the new variables to add to the data.frame

**Value**

None

**Examples**

```
r_data <- list()
r_data$dat <- data.frame(a = 1:20)
changedata("dat", 20:1, "b")
head(r_data$dat)
rm(r_data, envir = .GlobalEnv)
```

---

city	<i>City distances</i>
------	-----------------------

---

**Description**

City distances

**Usage**

```
data(city)
```

**Format**

A data frame with 45 rows and 3 variables

**Details**

Distance in miles between nine cities in the USA. The dataset is used to illustrate multi-dimensional scaling (MDS). Description provided in `attr(city,"description")`

---

ci_label	<i>Labels for confidence intervals</i>
----------	--

---

**Description**

Labels for confidence intervals

**Usage**

```
ci_label(alt, cl)
```

**Arguments**

alt	Type of hypothesis ("two.sided", "less", "greater")
cl	Confidence level

**Value**

A character vector with labels for a confidence interval

**Examples**

```
ci_label("less", .95)
ci_label("two.sided", .95)
ci_label("greater", .9)
```



---

ci_perc	<i>Values at confidence levels</i>
---------	------------------------------------

---

**Description**

Values at confidence levels

**Usage**

```
ci_perc(dat, alt, cl)
```

**Arguments**

dat	Data
alt	Type of hypothesis ("two.sided", "less", "greater")
cl	Confidence level

**Value**

A vector with values at a confidence level

**Examples**

```
ci_perc(0:100, "less", .95)
ci_perc(0:100, "greater", .95)
ci_perc(0:100, "two.sided", .80)
```

---

clean_loadings	<i>Sort and clean loadings</i>
----------------	--------------------------------

---

**Description**

Sort and clean loadings

**Usage**

```
clean_loadings(floadings, cutoff = 0, fsort = FALSE, dec = 8)
```

**Arguments**

floadings	Data frame with loadings
cutoff	Show only loadings with (absolute) values above cutoff (default = 0)
fsort	Sort factor loadings
dec	Number of decimals to show

**Details**

See [http://vnijs.github.io/radiant/marketing/full\\_factor.html](http://vnijs.github.io/radiant/marketing/full_factor.html) for an example in Radiant

## Examples

```
result <- full_factor("diamonds",c("price","carat","table","x","y"))
clean_loadings(result$floadings, TRUE, .5, 2)
```

---

combinedata	<i>Combine datasets using dplyr's bind and join functions</i>
-------------	---

---

## Description

Combine datasets using dplyr's bind and join functions

## Usage

```
combinedata(dataset, cmb_dataset, by = "", type = "inner_join", name = "")
```

## Arguments

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an <code>r_data</code> list from Radiant
cmb_dataset	Dataset name (string) to combine with 'dataset'. This can be a dataframe in the global environment or an element in an <code>r_data</code> list from Radiant
by	Variables used to combine 'dataset' and 'cmb_dataset'
type	The main bind and join types from the dplyr package are provided. <b>inner_join</b> returns all rows from x with matching values in y, and all columns from x and y. If there are multiple matches between x and y, all match combinations are returned. <b>left_join</b> returns all rows from x, and all columns from x and y. If there are multiple matches between x and y, all match combinations are returned. <b>right_join</b> is equivalent to a left join for datasets y and x. <b>full_join</b> combines two datasets, keeping rows and columns that appear in either. <b>semi_join</b> returns all rows from x with matching values in y, keeping just columns from x. A semi join differs from an inner join because an inner join will return one row of x for each matching row of y, whereas a semi join will never duplicate rows of x. <b>anti_join</b> returns all rows from x without matching values in y, keeping only columns from x. <b>bind_rows</b> and <b>bind_cols</b> are also included, as are <b>intersect</b> , <b>union</b> , and <b>setdiff</b> . See <a href="http://vnijs.github.io/radiant/base/combine.html">http://vnijs.github.io/radiant/base/combine.html</a> for further details
name	Name for the combined dataset

## Details

See <http://vnijs.github.io/radiant/base/combine.html> for an example in Radiant

## Value

If list 'r\_data' exists the combined dataset is added as 'name'. Else the combined dataset will be returned as 'name'

## Examples

```
combinedata("titanic","titanic_pred",c("pclass","sex","age")) %>% head
titanic %>% combinedata("titanic_pred",c("pclass","sex","age")) %>% head
titanic %>% combinedata(titanic_pred,c("pclass","sex","age")) %>% head
avengers %>% combinedata(superheroes, type = "bind_cols")
combinedata("avengers", "superheroes", type = "bind_cols")
avengers %>% combinedata(superheroes, type = "bind_rows")
```

---

compare_means	<i>Compare means for two or more variables</i>
---------------	--

---

## Description

Compare means for two or more variables

## Usage

```
compare_means(dataset, var1, var2, samples = "independent",
  alternative = "two.sided", conf_lev = 0.95, comb = "",
  adjust = "none", test = "t", dec = 3, data_filter = "")
```

## Arguments

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an <code>r_data</code> list from Radiant
var1	A numeric variable or factor selected for comparison
var2	One or more numeric variables for comparison. If var1 is a factor only one variable can be selected and the mean of this variable is compared across (factor) levels of var1
samples	Are samples independent ("independent") or not ("paired")
alternative	The alternative hypothesis ("two.sided", "greater" or "less")
conf_lev	Span of the confidence interval
comb	Combinations to evaluate
adjust	Adjustment for multiple comparisons ("none" or "bonf" for Bonferroni)
test	T-test ("t") or Wilcox ("wilcox")
dec	Number of decimals to show
data_filter	Expression entered in, e.g., Data > View to filter the dataset in Radiant. The expression should be a string (e.g., "price > 10000")

## Details

See [http://vnijs.github.io/radiant/quant/compare\\_means.html](http://vnijs.github.io/radiant/quant/compare_means.html) for an example in Radiant

## Value

A list of all variables defined in the function as an object of class `compare_means`

**See Also**

[summary.compare\\_means](#) to summarize results

[plot.compare\\_means](#) to plot results

**Examples**

```
result <- compare_means("diamonds", "cut", "price")
result <- diamonds %>% compare_means("cut", "price")
```

---

compare\_props

*Compare proportions across groups*

---

**Description**

Compare proportions across groups

**Usage**

```
compare_props(dataset, var1, var2, levs = "", alternative = "two.sided",
  conf_lev = 0.95, comb = "", adjust = "none", dec = 3,
  data_filter = "")
```

**Arguments**

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an <code>r_data</code> list from Radiant
var1	A grouping variable to split the data for comparisons
var2	The variable to calculate proportions for
levs	The factor level selected for the proportion comparison
alternative	The alternative hypothesis ("two.sided", "greater" or "less")
conf_lev	Span of the confidence interval
comb	Combinations to evaluate
adjust	Adjustment for multiple comparisons ("none" or "bonf" for Bonferroni)
dec	Number of decimals to show
data_filter	Expression entered in, e.g., Data > View to filter the dataset in Radiant. The expression should be a string (e.g., "price > 10000")

**Details**

See [http://vnijs.github.io/radiant/quant/compare\\_props.html](http://vnijs.github.io/radiant/quant/compare_props.html) for an example in Radiant

**Value**

A list of all variables defined in the function as an object of class `compare_props`

**See Also**

[summary.compare\\_props](#) to summarize results

[plot.compare\\_props](#) to plot results

**Examples**

```
result <- compare_props("titanic", "pclass", "survived")
result <- titanic %>% compare_props("pclass", "survived")
```

---

computer	<i>Perceptions of computer (re)sellers</i>
----------	--

---

**Description**

Perceptions of computer (re)sellers

**Usage**

```
data(computer)
```

**Format**

A data frame with 5 rows and 8 variables

**Details**

Perceptions of computer (re)sellers. The dataset is used to illustrate perceptual maps. Description provided in `attr(computer,"description")`

---

conjoint	<i>Conjoint analysis</i>
----------	--------------------------

---

**Description**

Conjoint analysis

**Usage**

```
conjoint(dataset, dep_var, indep_var, reverse = FALSE, data_filter = "")
```

**Arguments**

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an <code>r_data</code> list from Radiant
dep_var	The response variable (e.g., profile ratings)
indep_var	Explanatory variables in the regression
reverse	Reverse the values of the response variable ('dep_var')
data_filter	Expression entered in, e.g., Data > View to filter the dataset in Radiant. The expression should be a string (e.g., "price > 10000")

**Details**

See <http://vnijs.github.io/radiant/marketing/conjoint.html> for an example in Radiant

**Value**

A list with all variables defined in the function as an object of class conjoint

**See Also**

[summary.conjoint](#) to summarize results

[plot.conjoint](#) to plot results

**Examples**

```
result <- conjoint("mp3", dep_var = "Rating", indep_var = "Memory:Shape")
result <- mp3 %>% conjoint(dep_var = "Rating", indep_var = "Memory:Shape")
```

---

conjoint\_profiles

---

*Create fractional factorial design for conjoint analysis*


---

**Description**

Create fractional factorial design for conjoint analysis

**Usage**

```
conjoint_profiles(dataset)
```

**Arguments**

dataset                      Dataset name (string). This can be a dataframe in the global environment or an element in an `r_data` list from Radiant

**Details**

See [http://vnijis.github.io/radiant/marketing/conjoint\\_profiles.html](http://vnijis.github.io/radiant/marketing/conjoint_profiles.html) for an example in Radiant

**Value**

A list with all variables defined in the function as an object of class conjoint\_profiles

**See Also**

[summary.conjoint\\_profiles](#) to summarize results

**Examples**

```
cp <- c("price = c('$10','$13','$16')", "sight = c('Staggered','Not Staggered')",
       "comfort = c('Average no cupholder','Average cupholder','Large cupholder')",
       "audio.visual = c('Small plain','Large plain','Large digital')",
       "food = c('No food','Hot dogs and popcorn','Gourmet food')")
result <- conjoint_profiles("cp")
result <- cp %>% conjoint_profiles
rm(cp, envir = .GlobalEnv)
```

---

copy_all	<i>Source all package functions</i>
----------	-------------------------------------

---

**Description**

Source all package functions

**Usage**

```
copy_all(.from)
```

**Arguments**

.from	The package to pull the function from
-------	---------------------------------------

**Details**

Equivalent of source with local=TRUE for all package functions. Adapted from functions by smbache, author of the import package. See <https://github.com/smbache/import/issues/4> for a discussion. This function will be deprecated when (if) it is included in <https://github.com/smbache/import>

**Examples**

```
copy_all(radiant)
```

---

copy_from	<i>Source for package functions</i>
-----------	-------------------------------------

---

**Description**

Source for package functions

**Usage**

```
copy_from(.from, ...)
```

**Arguments**

.from	The package to pull the function from
...	Functions to pull

**Details**

Equivalent of source with local=TRUE for package functions. Written by smbache, author of the import package. See <https://github.com/smbache/import/issues/4> for a discussion. This function will be deprecated when (if) it is included in <https://github.com/smbache/import>

**Examples**

```
copy_from(radiant, state_init)
```

---

copy_imported	<i>Import all functions that a package imports for use with Shiny</i>
---------------	---

---

**Description**

Import all functions that a package imports for use with Shiny

**Usage**

```
copy_imported(.from)
```

**Arguments**

.from	The package to pull the function from
-------	---------------------------------------

**Examples**

```
copy_imported(radiant)
```

---

correlation	<i>Calculate correlations for two or more variables</i>
-------------	---

---

**Description**

Calculate correlations for two or more variables

**Usage**

```
correlation(dataset, vars, type = "pearson", dec = 2, data_filter = "")
```

**Arguments**

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an <code>r_data</code> list from Radiant
vars	Variables to include in the analysis
type	Type of correlations to calculate. Options are "pearson", "spearman", and "kendall". "pearson" is the default
dec	Number of decimals to show
data_filter	Expression entered in, e.g., Data > View to filter the dataset in Radiant. The expression should be a string (e.g., "price > 10000")

**Details**

See <http://vnijs.github.io/radiant/quant/correlation.html> for an example in Radiant

**Value**

A list with all variables defined in the function as an object of class `compare_means`



**See Also**

[summary.correlation\\_](#) to summarize results

[plot.correlation\\_](#) to plot results

**Examples**

```
result <- correlation("diamonds", c("price","carat"))
result <- correlation("diamonds", c("price","carat","clarity"))
result <- correlation("diamonds", "price:table")
result <- diamonds %>% correlation("price:table")
```

---

cross_tabs	<i>Evaluate associations between categorical variables</i>
------------	--

---

**Description**

Evaluate associations between categorical variables

**Usage**

```
cross_tabs(dataset, var1, var2, data_filter = "")
```

**Arguments**

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an <code>r_data</code> list from Radiant
var1	A categorical variable
var2	Another categorical variable
data_filter	Expression entered in, e.g., Data > View to filter the dataset in Radiant. The expression should be a string (e.g., "price > 10000")

**Details**

See [http://vnijs.github.io/radiant/quant/cross\\_tabs.html](http://vnijs.github.io/radiant/quant/cross_tabs.html) for an example in Radiant

**Value**

A list of all variables used in `cross_tabs` as an object of class `cross_tabs`

**See Also**

[summary.cross\\_tabs](#) to summarize results

[plot.cross\\_tabs](#) to plot results

**Examples**

```
result <- cross_tabs("newspaper", "Income", "Newspaper")
result <- newspaper %>% cross_tabs("Income", "Newspaper")
```

---

cv	<i>Coefficient of variation</i>
----	---------------------------------

---

**Description**

Coefficient of variation

**Usage**

```
cv(x, na.rm = TRUE)
```

**Arguments**

x	Input variable
na.rm	If TRUE missing values are removed before calculation

**Value**

Coefficient of variation

**Examples**

```
cv(runif (100))
```

---

decile_split	<i>Create deciles</i>
--------------	-----------------------

---

**Description**

Create deciles

**Usage**

```
decile_split(x)
```

**Arguments**

x	Input variable
---	----------------

**Value**

Factor variable

---

diamonds*Diamond prices*

---

**Description**

Diamond prices

**Usage**

```
data(diamonds)
```

**Format**

A data frame with 3000 rows and 10 variables

**Details**

A sample of 3,000 from the diamonds dataset bundled with ggplot2. Description provided in `attr(diamonds,"description")`

---

does\_vary*Does a vector have non-zero variability?*

---

**Description**

Does a vector have non-zero variability?

**Usage**

```
does_vary(x)
```

**Arguments**

x                      Input variable

**Value**

Logical. TRUE if there is variability

**Examples**

```
summarise_each(diamonds, funs(does_vary)) %>% as.logical
```

---

dtree	<i>Create a decision tree</i>
-------	-------------------------------

---

**Description**

Create a decision tree

**Usage**

```
dtree(yl, opt = "max")
```

**Arguments**

yl	A yaml string or a list (e.g., from <code>yaml::yaml.load_file()</code> )
opt	Find the maximum ("max") or minimum ("min") value for each decision node

**Details**

See <http://vnijs.github.io/radiant/base/dtree.html> for an example in Radiant

**Value**

A list with the initial tree and the calculated tree

**See Also**

[summary.dtree](#) to summarize results  
[plot.dtree](#) to plot results

---

dtree_parser	<i>Parse yaml input for dtree to provide (more) useful error messages</i>
--------------	---

---

**Description**

Parse yaml input for dtree to provide (more) useful error messages

**Usage**

```
dtree_parser(yl)
```

**Arguments**

yl	A yaml string
----	---------------

**Details**

See <http://vnijs.github.io/radiant/base/dtree.html> for an example in Radiant

**Value**

An updated yaml string or a vector messages to return to the users

**See Also**

`dtree` to calculate tree  
`summary.dtree` to summarize results  
`plot.dtree` to plot results

---

explore	<i>Explore data</i>
---------	---------------------

---

**Description**

Explore data

**Usage**

```
explore(dataset, vars = "", byvar = "", fun = "mean_rm", tabfilt = "",
        tabsort = "", data_filter = "", shiny = FALSE)
```

**Arguments**

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an <code>r_data</code> list from Radiant
vars	(Numerical) variables to summaries
byvar	Variable(s) to group data by before summarizing
fun	Functions to use for summarizing
tabfilt	Expression used to filter the table. This should be a string (e.g., "Total > 10000")
tabsort	Expression used to sort the table (e.g., "-Total")
data_filter	Expression entered in, e.g., Data > View to filter the dataset in Radiant. The expression should be a string (e.g., "price > 10000")
shiny	Logical (TRUE, FALSE) to indicate if the function call originate inside a shiny app

**Details**

See <http://vnijs.github.io/radiant/base/explore.html> for an example in Radiant

**Value**

A list of all variables defined in the function as an object of class `explore`

**See Also**

`summary.explore` to show summaries

**Examples**

```
result <- explore("diamonds", "price:x")
summary(result)
result <- explore("diamonds", c("price", "carat"), byvar = "cut", fun = c("n_missing", "skew"))
summary(result)
diamonds %>% explore("price", byvar = "cut", fun = c("length", "n_distinct"))
```

---

factorizer	<i>Convert character to factors as needed</i>
------------	---

---

**Description**

Convert character to factors as needed

**Usage**

```
factorizer(dat, safx = 20)
```

**Arguments**

dat	Data.frame
safox	Values to levels ratio

**Value**

Data.frame with factors

---

ff_design	<i>Function to generate a fractional factorial design</i>
-----------	---

---

**Description**

Function to generate a fractional factorial design

**Usage**

```
ff_design(attr, trial = 0, rseed = 172110)
```

**Arguments**

attr	Attributes used to generate profiles
trial	Number of trials that have already been run
rseed	Random seed to use

**Details**

See [http://vnijs.github.io/radiant/marketing/conjoint\\_profiles.html](http://vnijs.github.io/radiant/marketing/conjoint_profiles.html) for an example in Radiant

**See Also**

[conjoint\\_profiles](#) to calculate results  
[summary.conjoint\\_profiles](#) to summarize results

---

filterdata	<i>Filter data with user-specified expression</i>
------------	---

---

**Description**

Filter data with user-specified expression

**Usage**

```
filterdata(dat, filt = "")
```

**Arguments**

dat	Data.frame to filter
filt	Filter expression to apply to the specified dataset (e.g., "price > 10000" if dataset is "diamonds")

**Value**

Filtered data.frame

---

find_max	<i>Find maximum value of a vector</i>
----------	---------------------------------------

---

**Description**

Find maximum value of a vector

**Usage**

```
find_max(var, val = "")
```

**Arguments**

var	Variable to find the maximum for
val	Variable to find the value for at the maximum of var

**Value**

Value of val at the maximum of var

---

find_min	<i>Find minimum value of a vector</i>
----------	---------------------------------------

---

**Description**

Find minimum value of a vector

**Usage**

```
find_min(var, val = "")
```

**Arguments**

var	Variable to find the minimum for
val	Variable to find the value for at the maximum of var

**Value**

Value of val at the minimum of var

---



---

flip	<i>Flip the DT table to put Function, Variable, or Group by on top</i>
------	--

---

**Description**

Flip the DT table to put Function, Variable, or Group by on top

**Usage**

```
flip(expl, top = "fun")
```

**Arguments**

expl	Return value from <a href="#">explore</a>
top	The variable (type) to display at the top of the table ("fun" for Function, "var" for Variable, and "byvar" for Group by. "fun" is the default)

**Details**

See <http://vnijs.github.io/radiant/base/explore.html> for an example in Radiant

**See Also**

[explore](#) to generate summaries  
[make\\_expl](#) to create the DT table

**Examples**

```
result <- explore("diamonds", "price:x") %>% flip("var")

result <- explore("diamonds", "price", byvar = "cut", fun = c("length", "skew")) %>%
  flip("byvar")
```



---

full_factor	Factor analysis (PCA)
-------------	-----------------------

---

**Description**

Factor analysis (PCA)

**Usage**

```
full_factor(dataset, vars, method = "PCA", nr_fact = 2,  
            rotation = "varimax", data_filter = "")
```

**Arguments**

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an <code>r_data</code> list from Radiant
vars	Variables to include in the analysis
method	Factor extraction method to use
nr_fact	Number of factors to extract
rotation	Apply varimax rotation or no rotation ("varimax" or "none")
data_filter	Expression entered in, e.g., Data > View to filter the dataset in Radiant. The expression should be a string (e.g., "price > 10000")

**Details**

See [http://vnijs.github.io/radiant/marketing/full\\_factor.html](http://vnijs.github.io/radiant/marketing/full_factor.html) for an example in Radiant

**Value**

A list with all variables defined in the function as an object of class `full_factor`

**See Also**

`summary.full_factor` to summarize results

`plot.full_factor` to plot results

**Examples**

```
result <- full_factor("diamonds",c("price","carat","table","x","y"))  
result <- full_factor("diamonds",c("price","carat","table","x","y"), method = "maxlik")  
result <- diamonds %>% full_factor(c("price","carat","table","x","y"), method = "maxlik")
```

---

`getclass`*Get variable class*

---

**Description**

Get variable class

**Usage**

```
getclass(dat)
```

**Arguments**

`dat`                      Dataset to evaluate

**Details**

Get variable class information for each column in a data.frame

**Value**

Vector with class information for each variable

**Examples**

```
getclass(mtcars)
```

---

`getdata`*Get data for analysis functions*

---

**Description**

Get data for analysis functions

**Usage**

```
getdata(dataset, vars = "", filt = "", rows = NULL, na.rm = TRUE)
```

**Arguments**

<code>dataset</code>	Name of the dataframe
<code>vars</code>	Variables to extract from the dataframe
<code>filt</code>	Filter to apply to the specified dataset. For example "price > 10000" if dataset is "diamonds" (default is "")
<code>rows</code>	Select rows in the specified dataset. For example "1:10" for the first 10 rows or "n()-10:n()" for the last 10 rows (default is NULL)
<code>na.rm</code>	Remove rows with missing values (default is TRUE)

**Value**

Data.frame with specified columns and rows

**Examples**

```
r_data <- list()
r_data$dat <- mtcars
getdata("dat", "mpg:vs", filt = "mpg > 20", rows = 1:5)
rm(r_data, envir = .GlobalEnv)
```

---

getsummary	<i>Create data.frame summary</i>
------------	----------------------------------

---

**Description**

Create data.frame summary

**Usage**

```
getsummary(dat, dc = getclass(dat))
```

**Arguments**

dat	Data.frame
dc	Class for each variable

**Details**

Used in Radiant's Data > Transform tab

---

glm_reg	<i>Generalized linear models (GLM)</i>
---------	--

---

**Description**

Generalized linear models (GLM)

**Usage**

```
glm_reg(dataset, dep_var, indep_var, lev = "", link = "logit",
  int_var = "", check = "", dec = 3, data_filter = "")
```

**Arguments**

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an <code>r_data</code> list from Radiant
dep_var	The response variable in the logit (probit) model
indep_var	Explanatory variables in the model
lev	The level in the response variable defined as <code>_success_</code>
link	Link function for <code>_glm_</code> ('logit' or 'probit'). 'logit' is the default
int_var	Interaction term to include in the model (not implement)
check	Optional output or estimation parameters. "vif" to show the multicollinearity diagnostics. "confint" to show coefficient confidence interval estimates. "odds" to show odds ratios and confidence interval estimates. "standardize" to output standardized coefficient estimates. "stepwise" to apply step-wise selection of variables
dec	Number of decimals to show
data_filter	Expression entered in, e.g., Data > View to filter the dataset in Radiant. The expression should be a string (e.g., "price > 10000")

**Details**

See [http://vnijs.github.io/radiant/quant/glm\\_reg.html](http://vnijs.github.io/radiant/quant/glm_reg.html) for an example in Radiant

**Value**

A list with all variables defined in `glm_reg` as an object of class `glm_reg`

**See Also**

`summary.glm_reg` to summarize the results  
`plot.glm_reg` to plot the results  
`predict.glm_reg` to generate predictions  
`plot.glm_predict` to plot prediction output

**Examples**

```
result <- glm_reg("titanic", "survived", c("pclass","sex"), lev = "Yes")
result <- glm_reg("titanic", "survived", c("pclass","sex"))
```

---

goodness	<i>Evaluate if sample data for a categorical variable is consistent with a hypothesized distribution</i>
----------	--

---

**Description**

Evaluate if sample data for a categorical variable is consistent with a hypothesized distribution

**Usage**

```
goodness(dataset, var, p = c(), data_filter = "")
```

**Arguments**

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an <code>r_data</code> list from Radiant
var	A categorical variable
p	Hypothesized distribution (either a numeric or character vector). If unspecified, defaults to an even distribution
data_filter	Expression entered in, e.g., Data > View to filter the dataset in Radiant. The expression should be a string (e.g., "price > 10000")

**Details**

See <http://vnijs.github.io/radiant/quant/goodness.html> for an example in Radiant

**Value**

A list of all variables used in `cross_tabs` as an object of class `cross_tabs`

**See Also**

[summary.goodness](#) to summarize results

[plot.goodness](#) to plot results

**Examples**

```
result <- goodness("newspaper", "Income")
```

---

hier_clus	<i>Hierarchical cluster analysis</i>
-----------	--------------------------------------

---

**Description**

Hierarchical cluster analysis

**Usage**

```
hier_clus(dataset, vars, distance = "sq.euclidian", method = "ward.D",
  data_filter = "")
```

**Arguments**

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an <code>r_data</code> list from Radiant
vars	Vector of variables to include in the analysis
distance	Distance
method	Method
data_filter	Expression entered in, e.g., Data > View to filter the dataset in Radiant. The expression should be a string (e.g., "price > 10000")

**Details**

See [http://vnijs.github.io/radiant/marketing/hier\\_clus.html](http://vnijs.github.io/radiant/marketing/hier_clus.html) for an example in Radiant

**Value**

A list of all variables used in hier\_clus as an object of class hier\_clus

**See Also**

`summary.hier_clus` to summarize results

`plot.hier_clus` to plot results

**Examples**

```
result <- hier_clus("shopping", vars = c("v1:v6"))
```

---

inverse	<i>Calculate inverse of a variable</i>
---------	--

---

**Description**

Calculate inverse of a variable

**Usage**

```
inverse(x)
```

**Arguments**

x                      Input variable

**Value**

1/x

---

is_empty	<i>Is a character variable defined</i>
----------	--

---

**Description**

Is a character variable defined

**Usage**

```
is_empty(x, empty = "")
```

**Arguments**

x                      Character value to evaluate  
 empty                  Indicate what 'empty' means. Default is empty string (i.e., "")

**Details**

Is a variable NULL or an empty string

**Value**

TRUE if empty, else FALSE

**Examples**

```
is_empty("")  
is_empty(NULL)
```

---

is_string	<i>Is input a string?</i>
-----------	---------------------------

---

**Description**

Is input a string?

**Usage**

```
is_string(x)
```

**Arguments**

x	Input
---	-------

**Details**

Is input a string

**Value**

TRUE if string, else FALSE

**Examples**

```
is_string("")  
is_string("data")  
is_string(c("data", "data"))  
is_string(NULL)
```

---

iterms	<i>Create a vector of interaction terms</i>
--------	---

---

**Description**

Create a vector of interaction terms

**Usage**

```
iterms(vars, nway, sep = "：")
```

**Arguments**

vars	Variables lables to use
nway	2-way (2) or 3-way (3) interactions labels to create
sep	Separator between variable names (default is :)

**Value**

Character vector of interaction term labels

**Examples**

```
paste0("var", 1:3) %>% iterms(2)
paste0("var", 1:3) %>% iterms(3)
paste0("var", 1:3) %>% iterms(2, sep = ".")
```

---

kmeans_clus	<i>K-means cluster analysis</i>
-------------	---------------------------------

---

**Description**

K-means cluster analysis

**Usage**

```
kmeans_clus(dataset, vars, hc_init = TRUE, distance = "sq.euclidian",
  method = "ward.D", seed = 1234, nr_clus = 2, data_filter = "")
```

**Arguments**

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an <code>r_data</code> list from Radiant
vars	Vector of variables to include in the analysis
hc_init	Use centers from hier_clus as the starting point
distance	Distance for hier_clus
method	Method for hier_clus
seed	Random see to use for kmeans if hc_init is FALSE
nr_clus	Number of clusters to extract
data_filter	Expression entered in, e.g., Data > View to filter the dataset in Radiant. The expression should be a string (e.g., "price > 10000")



**Details**

See [http://vnijs.github.io/radiant/marketing/kmeans\\_clus.html](http://vnijs.github.io/radiant/marketing/kmeans_clus.html) for an example in Radiant

**Value**

A list of all variables used in `kmeans_clus` as an object of class `kmeans_clus`

**See Also**

`summary.kmeans_clus` to summarize results  
`plot.kmeans_clus` to plot results  
`save_membership` to add cluster membership to the selected dataset

**Examples**

```
result <- kmeans_clus("shopping", c("v1:v6"))
```

---

kurtosi	<i>Exporting the kurtosi function from the psych package</i>
---------	--

---

**Description**

Exporting the kurtosi function from the psych package

---

launcher	<i>Create a launcher on the desktop for Windows (.bat), Mac (.command), or Linux (.sh)</i>
----------	--

---

**Description**

Create a launcher on the desktop for Windows (.bat), Mac (.command), or Linux (.sh)

**Usage**

```
launcher(app = c("analytics", "marketing", "quant", "base"))
```

**Arguments**

`app` App to run when the desktop icon is double-clicked ("analytics", "marketing", "quant", or "base"). Default is "analytics"

**Details**

On Windows/Mac/Linux a file named `radiant.bat/radiant.command/radiant.sh` will be put on the desktop. Double-click the file to launch the specified Radiant app

**See Also**

`win_launcher` to create a shortcut on Windows  
`mac_launcher` to create a shortcut on Mac  
`lin_launcher` to create a shortcut on Linux

---

lin_launcher	Create a launcher and updater for Linux (.sh)
--------------	---

---

### Description

Create a launcher and updater for Linux (.sh)

### Usage

```
lin_launcher(app = c("analytics", "marketing", "quant", "base"))
```

### Arguments

app	App to run when the desktop icon is double-clicked ("analytics", "marketing", "quant", or "base"). Default is "analytics"
-----	---

### Details

On Linux a file named 'radiant.sh' and one named 'update\_radiant.sh' will be put on the desktop. Double-click the file to launch the specified Radiant app or update Radiant to the latest version

### Examples

```
if (interactive()) {
  if (Sys.info()["sysname"] == "Linux") {
    lin_launcher()
    fn <- paste0("/home/", Sys.getenv("USER"), "/Desktop/radiant.sh")
    if (!file.exists(fn))
      stop("Linux launcher not created")
    else
      unlink(fn)
  }
}
```

---

ln	Natural log
----	-------------

---

### Description

Natural log

### Usage

```
ln(x, na.rm = TRUE)
```

### Arguments

x	Input variable
na.rm	Remove missing values (default is TRUE)

**Value**

Natural log of vector

**Examples**

```
ln(runif(10,1,2))
```

---

loadcsv

*Load a csv file with read.csv and read\_csv*


---

**Description**

Load a csv file with read.csv and read\_csv

**Usage**

```
loadcsv(fn, header = TRUE, sep = ",", dec = ".", saf = TRUE,
        safx = 20)
```

**Arguments**

fn	File name string
header	Header in file (TRUE, FALSE)
sep	Use , (default) or ; or \t
dec	Decimal symbol. Use . (default) or ,
saf	Convert character variables to factors if (1) there are less than 100 distinct values (2) there are X (see safx) more values than levels
safox	Values to levels ratio

**Value**

Data.frame with (some) variables converted to factors

---

loadcsv\_url

*Load a csv file with from a url*


---

**Description**

Load a csv file with from a url

**Usage**

```
loadcsv_url(csv_url, header = TRUE, sep = ",", dec = ".", saf = TRUE,
            safox = 20)
```

**Arguments**

csv_url	URL for the csv file
header	Header in file (TRUE, FALSE)
sep	Use , (default) or ; or \t
dec	Decimal symbol. Use . (default) or ,
saf	Convert character variables to factors if (1) there are less than 100 distinct values (2) there are X (see safx) more values than levels
safx	Values to levels ratio

**Value**

Data.frame with (some) variables converted to factors

---

loadrda	<i>Load an rda file and add it to the radiant data list (r_data)</i>
---------	--

---

**Description**

Load an rda file and add it to the radiant data list (r\_data)

**Usage**

```
loadrda(fn, ext = "rda")
```

**Arguments**

fn	File name string
ext	File extension ("rda" is the default)

**Value**

Data.frame in r\_data

---

loadrda_url	<i>Load an rda file from a url</i>
-------------	------------------------------------

---

**Description**

Load an rda file from a url

**Usage**

```
loadrda_url(rda_url)
```

**Arguments**

rda_url	URL for the csv file
---------	----------------------

**Value**

Data.frame

mac\_launcher

*Create a launcher and updater for Mac (.command)***Description**

Create a launcher and updater for Mac (.command)

**Usage**

```
mac_launcher(app = c("analytics", "marketing", "quant", "base"))
```

**Arguments**

**app** App to run when the desktop icon is double-clicked ("analytics", "marketing", "quant", or "base"). Default is "analytics"

**Details**

On Mac a file named 'radiant.command' and one named 'update\_radiant.command' will be put on the desktop. Double-click the file to launch the specified Radiant app or update Radiant to the latest version

**Examples**

```
if (interactive()) {
  if (Sys.info()["sysname"] == "Darwin") {
    mac_launcher()
    fn <- paste0("/Users/", Sys.getenv("USER"), "/Desktop/radiant.command")
    if (!file.exists(fn))
      stop("Mac launcher not created")
    else
      unlink(fn)
  }
}
```

make\_dt

*Make a pivot tabel in DT***Description**

Make a pivot tabel in DT

**Usage**

```
make_dt(pvt, format = "none", perc = FALSE, search = "",
        searchCols = NULL, order = NULL)
```

**Arguments**

pvt	Return value from <a href="#">pivotr</a>
format	Show Color bar ("color_bar"), Heat map ("heat"), or None ("none")
perc	Display numbers as percentages (TRUE or FALSE)
search	Global search. Used to save and restore state
searchCols	Column search and filter. Used to save and restore state
order	Column sorting. Used to save and restore state

**Details**

See <http://vnijs.github.io/radiant/base/pivotr.html> for an example in Radiant

**See Also**

[pivotr](#) to create the pivot-table using dplyr  
[summary.pivotr](#) to print a plain text table

**Examples**

```
pivotr("diamonds", cvars = "cut") %>% make_dt
pivotr("diamonds", cvars = c("cut","clarity")) %>% make_dt(format = "color_bar")
ret <- pivotr("diamonds", cvars = c("cut","clarity"), normalize = "total") %>%
  make_dt(format = "color_bar", perc = TRUE)
```

---

make\_expl

---

*Make a tabel of summary statistics in DT*


---

**Description**

Make a tabel of summary statistics in DT

**Usage**

```
make_expl(expl, top = "fun", dec = 3, search = "", searchCols = NULL,
  order = NULL)
```

**Arguments**

expl	Return value from <a href="#">explore</a>
top	The variable (type) to display at the top of the table ("fun" for Function, "var" for Variable, and "byvar" for Group by)
dec	Number of decimals to show
search	Global search. Used to save and restore state
searchCols	Column search and filter. Used to save and restore state
order	Column sorting. Used to save and restore state

**Details**

See <http://vnijs.github.io/radiant/base/explore.html> for an example in Radiant

**See Also**

[pivotr](#) to create the pivot-table using dplyr

[summary.pivotr](#) to print a plain text table

**Examples**

```
tab <- explore("diamonds", "price:x") %>% make_expl
tab <- explore("diamonds", "price", byvar = "cut", fun = c("length", "skew")) %>%
  make_expl(top = "byvar")
```

---

make_funs	<i>Make a list of functions-as-formulas to pass to dplyr</i>
-----------	--

---

**Description**

Make a list of functions-as-formulas to pass to dplyr

**Usage**

```
make_funs(x)
```

**Arguments**

x                      List of functions as strings

**Value**

List of functions to pass to dplyr in formula form

**Examples**

```
make_funs(c("mean", "sum_rm"))
```

---

make_train	<i>Generate a variable used to selected a training sample</i>
------------	---

---

**Description**

Generate a variable used to selected a training sample

**Usage**

```
make_train(n = 0.7, nr = 100)
```

**Arguments**

n                      Number (or fraction) of observations to label as training  
 nr                     Number of rows in the dataset

**Value**

0/1 variables for filtering

**Examples**

```
make_train(.5, 10)
```

---

max_rm	<i>Max with na.rm = TRUE</i>
--------	------------------------------

---

**Description**

Max with na.rm = TRUE

**Usage**

```
max_rm(x)
```

**Arguments**

x                      Input variable

**Value**

Maximum value

**Examples**

```
max_rm(runif (100))
```

---

mds	<i>(Dis)similarity based brand maps (MDS)</i>
-----	---

---

**Description**

(Dis)similarity based brand maps (MDS)

**Usage**

```
mds(dataset, id1, id2, dis, method = "metric", nr_dim = 2,
      data_filter = "")
```



**Arguments**

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an <code>r_data</code> list from Radiant
id1	A character variable or factor with unique entries
id2	A character variable or factor with unique entries
dis	A numeric measure of brand dissimilarity
method	Apply metric or non-metric MDS
nr_dim	Number of dimensions
data_filter	Expression entered in, e.g., <code>Data &gt; View</code> to filter the dataset in Radiant. The expression should be a string (e.g., <code>"price &gt; 10000"</code> )

**Details**

See <http://vnijs.github.io/radiant/marketing/mds.html> for an example in Radiant

**Value**

A list of all variables defined in the function as an object of class `mds`

**See Also**

[summary.mds](#) to summarize results

[plot.mds](#) to plot results

**Examples**

```
result <- mds("city", "from", "to", "distance")
summary(result)
result <- mds("diamonds", "clarity", "cut", "price")
summary(result)
```

---

mean\_rm

*Mean with na.rm = TRUE*


---

**Description**

Mean with `na.rm = TRUE`

**Usage**

```
mean_rm(x)
```

**Arguments**

x	Input variable
---	----------------

**Value**

Mean value

**Examples**

```
mean_rm(runif (100))
```

---

median_rm	<i>Median with na.rm = TRUE</i>
-----------	---------------------------------

---

**Description**

Median with na.rm = TRUE

**Usage**

```
median_rm(x)
```

**Arguments**

x	Input variable
---	----------------

**Value**

Median value

**Examples**

```
median_rm(runif (100))
```

---

median_split	<i>Median split</i>
--------------	---------------------

---

**Description**

Median split

**Usage**

```
median_split(x)
```

**Arguments**

x	Input variable
---	----------------

**Value**

Factor variable deciles

---

min_rm	<i>Min with na.rm = TRUE</i>
--------	------------------------------

---

**Description**

Min with na.rm = TRUE

**Usage**

```
min_rm(x)
```

**Arguments**

x	Input variable
---	----------------

**Value**

Minimum value

**Examples**

```
min_rm(runif (100))
```

---

mode_rm	<i>Mode with na.rm = TRUE</i>
---------	-------------------------------

---

**Description**

Mode with na.rm = TRUE

**Usage**

```
mode_rm(x)
```

**Arguments**

x	Input variable
---	----------------

**Value**

Mode value

**Examples**

```
mode_rm(diamonds$cut)
```

---

mp3	<i>Conjoint data for MP3 players</i>
-----	--------------------------------------

---

**Description**

Conjoint data for MP3 players

**Usage**

```
data(mp3)
```

**Format**

A data frame with 18 rows and 6 variables

**Details**

Conjoint data for MP3 players. Description provided in attr(mp3,"description")

---

mutate_each	<i>Add transformed variables to a data frame (NSE)</i>
-------------	--

---

**Description**

Add tranformed variables to a data frame (NSE)

**Usage**

```
mutate_each(tbl, funs, ..., ext = "")
```

**Arguments**

tbl	Data frame to add transformed variables to
funs	Function(s) to apply (e.g., funs(log))
...	Variables to transform
ext	Extension to add for each variable

**Details**

Wrapper for dplyr::mutate\_each that allows custom variable name extensions

**Examples**

```
mutate_each(mtcars, funs(log), mpg, cyl, ext = "_log")
```

---

newspaper	<i>Newspaper readership</i>
-----------	-----------------------------

---

**Description**

Newspaper readership

**Usage**

```
data(newspaper)
```

**Format**

A data frame with 580 rows and 2 variables

**Details**

Newspaper readership data for 580 consumers. Description provided in `attr(newspaper,"description")`

---

normalize	<i>Normalize a variable x by a variable y</i>
-----------	---

---

**Description**

Normalize a variable x by a variable y

**Usage**

```
normalize(x, y)
```

**Arguments**

x	Input variable
y	Normalizing variable

**Value**

x/y

---

n_missing	<i>Number of missing values</i>
-----------	---------------------------------

---

**Description**

Number of missing values

**Usage**

```
n_missing(x)
```

**Arguments**

x	Input variable
---	----------------

**Value**

number of missing values

**Examples**

```
n_missing(c("a", "b", NA))
```

---

p05	<i>5th percentile</i>
-----	-----------------------

---

**Description**

5th percentile

**Usage**

```
p05(x, na.rm = TRUE)
```

**Arguments**

x	Input variable
na.rm	If TRUE missing values are removed before calculation

**Value**

5th percentile

**Examples**

```
p05(rnorm(100))
```

---

p25	<i>25th percentile</i>
-----	------------------------

---

**Description**

25th percentile

**Usage**

```
p25(x, na.rm = TRUE)
```

**Arguments**

x	Input variable
na.rm	If TRUE missing values are removed before calculation

**Value**

25th percentile

**Examples**

```
p25(rnorm(100))
```

---

p75	<i>75th percentile</i>
-----	------------------------

---

**Description**

75th percentile

**Usage**

```
p75(x, na.rm = TRUE)
```

**Arguments**

x	Input variable
na.rm	If TRUE missing values are removed before calculation

**Value**

75th percentile

**Examples**

```
p75(rnorm(100))
```

---

p95	<i>95th percentile</i>
-----	------------------------

---

**Description**

95th percentile

**Usage**

```
p95(x, na.rm = TRUE)
```

**Arguments**

x	Input variable
na.rm	If TRUE missing values are removed before calculation

**Value**

95th percentile

**Examples**

```
p95(rnorm(100))
```

---

pivotr	<i>Create a pivot table using dplyr</i>
--------	---

---

**Description**

Create a pivot table using dplyr

**Usage**

```
pivotr(dataset, cvars = "", nvar = "None", fun = "mean",
        normalize = "None", tabfilt = "", tabsort = "", data_filter = "",
        shiny = FALSE)
```

**Arguments**

dataset	Name of the dataframe to change
cvars	Categorical variables
nvar	Numerical variable
fun	Function to apply to numerical variable
normalize	Normalize the table by "row" total,"column" totals, or overall "total"
tabfilt	Expression used to filter the table. This should be a string (e.g., "Total > 10000")
tabsort	Expression used to sort the table (e.g., "-Total")
data_filter	Expression used to filter the dataset. This should be a string (e.g., "price > 10000")
shiny	Logical (TRUE, FALSE) to indicate if the function call originate inside a shiny app



**Details**

Create a pivot-table. See <http://vnijs.github.io/radiant/base/pivotr.html> for an example in Radiant

**Examples**

```
result <- pivotr("diamonds", cvars = "cut")$tab
result <- pivotr("diamonds", cvars = c("cut","clarity","color"))$tab
result <- pivotr("diamonds", cvars = "cut:clarity", nvar = "price")$tab
```

---

plot.compare_means	<i>Plot method for the compare_means function</i>
--------------------	---

---

**Description**

Plot method for the compare\_means function

**Usage**

```
## S3 method for class 'compare_means'
plot(x, plots = "scatter", shiny = FALSE, ...)
```

**Arguments**

x	Return value from <a href="#">compare_means</a>
plots	One or more plots ("bar", "density", "box", or "scatter")
shiny	Did the function call originate inside a shiny app
...	further arguments passed to or from other methods

**Details**

See [http://vnijs.github.io/radiant/quant/compare\\_means.html](http://vnijs.github.io/radiant/quant/compare_means.html) for an example in Radiant

**See Also**

[compare\\_means](#) to calculate results  
[summary.compare\\_means](#) to summarize results

**Examples**

```
result <- compare_means("diamonds","cut","price")
plot(result, plots = c("bar","density"))
```

---

plot.compare_props	<i>Plot method for the compare_props function</i>
--------------------	---

---

### Description

Plot method for the compare\_props function

### Usage

```
## S3 method for class 'compare_props'
plot(x, plots = "bar", shiny = FALSE, ...)
```

### Arguments

x	Return value from <a href="#">compare_props</a>
plots	One or more plots of proportions ("bar" or "dodge")
shiny	Did the function call originate inside a shiny app
...	further arguments passed to or from other methods

### Details

See [http://vnijs.github.io/radiant/quant/compare\\_props.html](http://vnijs.github.io/radiant/quant/compare_props.html) for an example in Radiant

### See Also

[compare\\_props](#) to calculate results  
[summary.compare\\_props](#) to summarize results

### Examples

```
result <- compare_props("titanic", "pclass", "survived")
plot(result, plots = c("bar", "dodge"))
```

---

plot.conjoint	<i>Plot method for the conjoint function</i>
---------------	--

---

### Description

Plot method for the conjoint function

### Usage

```
## S3 method for class 'conjoint'
plot(x, plots = "pw", scale_plot = FALSE,
     shiny = FALSE, ...)
```

**Arguments**

x	Return value from <a href="#">conjoint</a>
plots	Show either the part-worth ("pw") or importance-weights ("iw") plot
scale_plot	Scale the axes of the part-worth plots to the same range
shiny	Did the function call originate inside a shiny app
...	further arguments passed to or from other methods

**Details**

See <http://vnijs.github.io/radiant/marketing/conjoint.html> for an example in Radiant

**See Also**

[conjoint](#) to generate results  
[summary.conjoint](#) to summarize results

**Examples**

```
result <- conjoint(dataset = "mp3", dep_var = "Rating", indep_var = "Memory:Shape")
plot(result, scale_plot = TRUE)
plot(result, plots = "iw")
```

---

plot.correlation_	<i>Plot method for the correlation function</i>
-------------------	---

---

**Description**

Plot method for the correlation function

**Usage**

```
## S3 method for class 'correlation_'
plot(x, ...)
```

**Arguments**

x	Return value from <a href="#">correlation</a>
...	further arguments passed to or from other methods.

**Details**

See <http://vnijs.github.io/radiant/quant/correlation.html> for an example in Radiant

**See Also**

[correlation](#) to calculate results  
[summary.correlation\\_](#) to summarize results

**Examples**

```
result <- correlation("diamonds", c("price", "carat", "clarity"))
plot(result)
diamonds %>% correlation("price:clarity") %>% plot
```

---

plot.cross\_tabs

*Plot method for the cross\_tabs function*


---

**Description**

Plot method for the cross\_tabs function

**Usage**

```
## S3 method for class 'cross_tabs'
plot(x, check = "", shiny = FALSE, ...)
```

**Arguments**

x	Return value from <a href="#">cross_tabs</a>
check	Show plots for variables var1 and var2. "observed" for the observed frequencies table, "expected" for the expected frequencies table (i.e., frequencies that would be expected if the null hypothesis holds), "chi_sq" for the contribution to the overall chi-squared statistic for each cell (i.e., $(o - e)^2 / e$ ), "dev_std" for the standardized differences between the observed and expected frequencies (i.e., $(o - e) / \sqrt{e}$ ), and "row_perc", "col_perc", and "perc" for row, column, and table percentages respectively
shiny	Did the function call originate inside a shiny app
...	further arguments passed to or from other methods

**Details**

See [http://vnijs.github.io/radiant/quant/cross\\_tabs.html](http://vnijs.github.io/radiant/quant/cross_tabs.html) for an example in Radiant

**See Also**

[cross\\_tabs](#) to calculate results

[summary.cross\\_tabs](#) to summarize results

**Examples**

```
result <- cross_tabs("newspaper", "Income", "Newspaper")
plot(result, check = c("observed", "expected", "chi_sq"))
newspaper %>% cross_tabs("Income", "Newspaper") %>% plot(c("observed", "expected"))
```

---

plot.dtree	<i>Plot method for the dtree function</i>
------------	---

---

**Description**

Plot method for the dtree function

**Usage**

```
## S3 method for class 'dtree'  
plot(x, symbol = "$", dec = 3, final = FALSE,  
     shiny = FALSE, ...)
```

**Arguments**

x	Return value from <a href="#">dtree</a>
symbol	Monetary symbol to use (\$ is the default)
dec	Decimal places to round results to
final	If TRUE plot the decision tree solution, else the initial decision tree
shiny	Did the function call originate inside a shiny app
...	further arguments passed to or from other methods

**Details**

See <http://vnijs.github.io/radiant/quant/dtree.html> for an example in Radiant

**See Also**

[dtree](#) to generate the result  
[summary.dtree](#) to summarize results

---

plot.full_factor	<i>Plot method for the full_factor function</i>
------------------	---

---

**Description**

Plot method for the full\_factor function

**Usage**

```
## S3 method for class 'full_factor'  
plot(x, shiny = FALSE, ...)
```

**Arguments**

x	Return value from <a href="#">full_factor</a>
shiny	Did the function call originate inside a shiny app
...	further arguments passed to or from other methods

**Details**

See [http://vnijs.github.io/radiant/marketing/full\\_factor.html](http://vnijs.github.io/radiant/marketing/full_factor.html) for an example in Radiant

**See Also**

[full\\_factor](#) to calculate results

[plot.full\\_factor](#) to plot results

**Examples**

```
result <- full_factor("diamonds",c("price","carat","table"))
plot(result)
result <- full_factor("computer","high_end:business")
summary(result)
```

---

plot.glm_predict	<i>Plot method for the predict.glm_reg function</i>
------------------	---

---

**Description**

Plot method for the predict.glm\_reg function

**Usage**

```
## S3 method for class 'glm_predict'
plot(x, xvar = "", facet_row = ".", facet_col = ".",
     color = "none", conf_lev = 0.95, ...)
```

**Arguments**

x	Return value from <a href="#">predict.glm_reg</a> .
xvar	Variable to display along the X-axis of the plot
facet_row	Create vertically arranged subplots for each level of the selected factor variable
facet_col	Create horizontally arranged subplots for each level of the selected factor variable
color	Adds color to a scatter plot to generate a heat map. For a line plot one line is created for each group and each is assigned a different colour
conf_lev	Confidence level to use for prediction intervals (.95 is the default). Note that the error bars for predictions are approximations at this point.
...	further arguments passed to or from other methods

**Details**

See [http://vnijs.github.io/radiant/quant/glm\\_reg.html](http://vnijs.github.io/radiant/quant/glm_reg.html) for an example in Radiant

**See Also**

[glm\\_reg](#) to generate the result  
[summary.glm\\_reg](#) to summarize results  
[plot.glm\\_reg](#) to plot results  
[predict.glm\\_reg](#) to generate predictions

**Examples**

```

result <- glm_reg("titanic", "survived", c("pclass","sex","age"), lev = "Yes")
pred <- predict(result, pred_cmd = "pclass = levels(pclass)")
plot(pred, xvar = "pclass")
pred <- predict(result, pred_cmd = "age = 0:100")
plot(pred, xvar = "age")
pred <- predict(result, pred_cmd = "pclass = levels(pclass), sex = levels(sex)")
plot(pred, xvar = "pclass", color = "sex")
pred <- predict(result, pred_cmd = "pclass = levels(pclass), age = seq(0,100,20)")
plot(pred, xvar = "pclass", color = "age")
plot(pred, xvar = "age", color = "pclass")
pred <- predict(result, pred_cmd="pclass=levels(pclass), sex=levels(sex), age=seq(0,100,20)")
plot(pred, xvar = "age", color = "sex", facet_col = "pclass")
plot(pred, xvar = "age", color = "pclass", facet_col = "sex")
pred <- predict(result, pred_cmd="pclass=levels(pclass), sex=levels(sex), age=seq(0,100,5)")
plot(pred, xvar = "age", color = "sex", facet_col = "pclass")
plot(pred, xvar = "age", color = "pclass", facet_col = "sex")

```

plot.glm\_reg

*Plot method for the glm\_reg function***Description**

Plot method for the glm\_reg function

**Usage**

```

## S3 method for class 'glm_reg'
plot(x, plots = "", conf_lev = 0.95, intercept = FALSE,
     shiny = FALSE, ...)

```

**Arguments**

x	Return value from <a href="#">glm_reg</a>
plots	Plots to produce for the specified GLM model. Use "" to avoid showing any plots (default). "hist" shows histograms of all variables in the model. "scatter" shows scatter plots (or box plots for factors) for the response variable with each explanatory variable. "dashboard" is a series of four plots used to visually evaluate model. "coef" provides a coefficient plot
conf_lev	Confidence level to use for coefficient and odds confidence intervals (.95 is the default)
intercept	Include the intercept in the coefficient plot (TRUE or FALSE). FALSE is the default
shiny	Did the function call originate inside a shiny app
...	further arguments passed to or from other methods

## Details

See [http://vnijs.github.io/radiant/quant/glm\\_reg.html](http://vnijs.github.io/radiant/quant/glm_reg.html) for an example in Radiant

## See Also

[glm\\_reg](#) to generate results

[plot.glm\\_reg](#) to plot results

[predict.glm\\_reg](#) to generate predictions

[plot.glm\\_predict](#) to plot prediction output

## Examples

```
result <- glm_reg("titanic", "survived", c("pclass","sex"), lev = "Yes")
plot(result, plots = "coef")
```

---

plot.goodness	<i>Plot method for the goodness function</i>
---------------	--

---

## Description

Plot method for the goodness function

## Usage

```
## S3 method for class 'goodness'
plot(x, check = "", shiny = FALSE, ...)
```

## Arguments

x	Return value from <a href="#">goodness</a>
check	Show plots for variable var. "observed" for the observed frequencies table, "expected" for the expected frequencies table (i.e., frequencies that would be expected if the null hypothesis holds), "chi_sq" for the contribution to the overall chi-squared statistic for each cell (i.e., $(o - e)^2 / e$ ), "dev_std" for the standardized differences between the observed and expected frequencies (i.e., $(o - e) / \sqrt{e}$ ), and "perc" for percentages
shiny	Did the function call originate inside a shiny app
...	further arguments passed to or from other methods

## Details

See <http://vnijs.github.io/radiant/quant/goodness> for an example in Radiant

## See Also

[goodness](#) to calculate results

[summary.goodness](#) to summarize results



## Examples

```
result <- goodness("newspaper", "Income")
plot(result, check = c("observed", "expected", "chi_sq"))
newspaper %>% goodness("Income") %>% plot(c("observed", "expected"))
```

---

plot.hier\_clus

*Plot method for the hier\_clus function*


---

## Description

Plot method for the hier\_clus function

## Usage

```
## S3 method for class 'hier_clus'
plot(x, plots = c("scree", "diff"), cutoff = 0.02,
     shiny = FALSE, ...)
```

## Arguments

x	Return value from <a href="#">hier_clus</a>
plots	Plots to return. "diff" shows the percentage change in within-cluster heterogeneity as respondents are group into different number of clusters, "dendro" shows the dendrogram, "scree" shows a scree plot of within-cluster heterogeneity
cutoff	For large datasets plots can take time to render and become hard to interpret. By selection a cutoff point (e.g., 0.05 percent) the initial steps in hierachical cluster analysis are removed from the plot
shiny	Did the function call originate inside a shiny app
...	further arguments passed to or from other methods

## Details

See [http://vnijs.github.io/radiant/marketing/hier\\_clus.html](http://vnijs.github.io/radiant/marketing/hier_clus.html) for an example in Radiant

## See Also

[summary.hier\\_clus](#) to summarize results

[plot.hier\\_clus](#) to plot results

## Examples

```
result <- hier_clus("shopping", vars = c("v1:v6"))
plot(result, plots = c("diff", "scree"), cutoff = .05)
plot(result, plots = "dendro", cutoff = 0)
shopping %>% hier_clus(vars = c("v1:v6")) %>% plot
```

---

plot.kmeans_clus	<i>Plot method for kmeans_clus</i>
------------------	------------------------------------

---

### Description

Plot method for kmeans\_clus

### Usage

```
## S3 method for class 'kmeans_clus'  
plot(x, shiny = FALSE, ...)
```

### Arguments

x	Return value from <a href="#">kmeans_clus</a>
shiny	Did the function call originate inside a shiny app
...	further arguments passed to or from other methods

### Details

See [http://vnijs.github.io/radiant/marketing/kmeans\\_clus.html](http://vnijs.github.io/radiant/marketing/kmeans_clus.html) for an example in Radiant

### See Also

[kmeans\\_clus](#) to generate results  
[summary.kmeans\\_clus](#) to summarize results  
[save\\_membership](#) to add cluster membership to the selected dataset

### Examples

```
result <- kmeans_clus("shopping", vars = c("v1:v6"))  
plot(result)
```

---

plot.mds	<i>Plot method for the mds function</i>
----------	---

---

### Description

Plot method for the mds function

### Usage

```
## S3 method for class 'mds'  
plot(x, rev_dim = "", fontsz = 1.3, ...)
```

**Arguments**

x	Return value from <a href="#">mds</a>
rev_dim	Flip the axes in plots
fontsz	Font size to use in plots
...	further arguments passed to or from other methods

**Details**

See <http://vnijs.github.io/radiant/marketing/mds.html> for an example in Radiant

**See Also**

[mds](#) to calculate results  
[summary.mds](#) to plot results

**Examples**

```
result <- mds("city", "from", "to", "distance")
plot(result)
plot(result, rev_dim = 1:2)
plot(result, rev_dim = 1:2, fontsz = 2)
```

---

plot.pivotr

*Plot method for the pivotr function*


---

**Description**

Plot method for the pivotr function

**Usage**

```
## S3 method for class 'pivotr'
plot(x, type = "dodge", perc = FALSE, flip = FALSE,
     shiny = FALSE, ...)
```

**Arguments**

x	Return value from <a href="#">pivotr</a>
type	Plot type to use ("fill" or "dodge" (default))
perc	Use percentage on the y-axis
flip	Flip the axes in a plot (FALSE or TRUE)
shiny	Did the function call originate inside a shiny app
...	further arguments passed to or from other methods

**Details**

See <http://vnijs.github.io/radiant/base/pivotr> for an example in Radiant

**See Also**

[pivotr](#) to generate summaries

[summary.pivotr](#) to show summaries

**Examples**

```
pivotr("diamonds", cvars = "cut") %>% plot
pivotr("diamonds", cvars = c("cut", "clarity")) %>% plot
pivotr("diamonds", cvars = c("cut", "clarity", "color")) %>% plot
```

---

plot.pmap

*Plot method for the pmap function*


---

**Description**

Plot method for the pmap function

**Usage**

```
## S3 method for class 'pmap'
plot(x, plots = "", scaling = 2.1, fontsz = 1.3, ...)
```

**Arguments**

x	Return value from <a href="#">pmap</a>
plots	Components to include in the plot ("brand", "attr"). If data on preferences is available use "pref" to add preference arrows to the plot
scaling	Arrow scaling in the brand map
fontsz	Font size to use in plots
...	further arguments passed to or from other methods

**Details**

See <http://vnijs.github.io/radiant/marketing/pmap.html> for an example in Radiant

**See Also**

[pmap](#) to calculate results

[summary.pmap](#) to plot results

**Examples**

```
result <- pmap("computer", "brand", "high_end:business")
plot(result, plots = "brand")
plot(result, plots = c("brand", "attr"))
plot(result, plots = c("brand", "attr"))
plot(result, scaling = 1, plots = c("brand", "attr"))
result <- pmap("computer", "brand", "high_end:dated",
              pref = c("innovative", "business"))
plot(result, plots = c("brand", "attr", "pref"))
```

---

plot.pre_factor	<i>Plot method for the pre_factor function</i>
-----------------	--

---

**Description**

Plot method for the pre\_factor function

**Usage**

```
## S3 method for class 'pre_factor'
plot(x, ...)
```

**Arguments**

x	Return value from <a href="#">pre_factor</a>
...	further arguments passed to or from other methods

**Details**

See [http://vnijs.github.io/radiant/marketing/pre\\_factor.html](http://vnijs.github.io/radiant/marketing/pre_factor.html) for an example in Radiant

**See Also**

[pre\\_factor](#) to calculate results  
[summary.pre\\_factor](#) to summarize results

**Examples**

```
result <- pre_factor("diamonds",c("price","carat","table"))
plot(result)
```

---

plot.prob_binom	<i>Plot method for the probability calculator function (binomial)</i>
-----------------	---

---

**Description**

Plot method for the probability calculator function (binomial)

**Usage**

```
## S3 method for class 'prob_binom'
plot(x, type = "values", shiny = FALSE, ...)
```

**Arguments**

x	Return value from <a href="#">prob_binom</a>
type	Probabilities or values
shiny	Did the function call originate inside a shiny app
...	further arguments passed to or from other methods

**Details**

See [http://vnijs.github.io/radiant/quant/prob\\_calc.html](http://vnijs.github.io/radiant/quant/prob_calc.html) for an example in Radiant

---

plot.prob_chisq	<i>Plot method for the probability calculator (Chi-squared distribution)</i>
-----------------	--

---

**Description**

Plot method for the probability calculator (Chi-squared distribution)

**Usage**

```
## S3 method for class 'prob_chisq'
plot(x, type = "values", shiny = FALSE, ...)
```

**Arguments**

x	Return value from <a href="#">prob_chisq</a>
type	Probabilities or values
shiny	Did the function call originate inside a shiny app
...	further arguments passed to or from other methods

**Details**

See [http://vnijs.github.io/radiant/quant/prob\\_calc.html](http://vnijs.github.io/radiant/quant/prob_calc.html) for an example in Radiant

---

plot.prob_disc	<i>Plot method for the probability calculator function (discrete)</i>
----------------	---

---

**Description**

Plot method for the probability calculator function (discrete)

**Usage**

```
## S3 method for class 'prob_disc'
plot(x, type = "values", shiny = FALSE, ...)
```

**Arguments**

x	Return value from <a href="#">prob_disc</a>
type	Probabilities or values
shiny	Did the function call originate inside a shiny app
...	further arguments passed to or from other methods

**Details**

See [http://vnijs.github.io/radiant/quant/prob\\_calc.html](http://vnijs.github.io/radiant/quant/prob_calc.html) for an example in Radiant

---

plot.prob_fdist	<i>Plot method for the probability calculator (F-distribution)</i>
-----------------	--

---

**Description**

Plot method for the probability calculator (F-distribution)

**Usage**

```
## S3 method for class 'prob_fdist'  
plot(x, type = "values", shiny = FALSE, ...)
```

**Arguments**

x	Return value from <a href="#">prob_fdist</a>
type	Probabilities or values
shiny	Did the function call originate inside a shiny app
...	further arguments passed to or from other methods

**Details**

See [http://vnijs.github.io/radiant/quant/prob\\_calc.html](http://vnijs.github.io/radiant/quant/prob_calc.html) for an example in Radiant

---

plot.prob_norm	<i>Plot method for the probability calculator (normal)</i>
----------------	--

---

**Description**

Plot method for the probability calculator (normal)

**Usage**

```
## S3 method for class 'prob_norm'  
plot(x, type = "values", shiny = FALSE, ...)
```

**Arguments**

x	Return value from <a href="#">prob_norm</a>
type	Probabilities or values
shiny	Did the function call originate inside a shiny app
...	further arguments passed to or from other methods

**Details**

See [http://vnijs.github.io/radiant/quant/prob\\_calc.html](http://vnijs.github.io/radiant/quant/prob_calc.html) for an example in Radiant

---

plot.prob_tdist	<i>Plot method for the probability calculator (t-distribution)</i>
-----------------	--

---

**Description**

Plot method for the probability calculator (t-distribution)

**Usage**

```
## S3 method for class 'prob_tdist'
plot(x, type = "values", shiny = FALSE, ...)
```

**Arguments**

x	Return value from <a href="#">prob_tdist</a>
type	Probabilities or values
shiny	Did the function call originate inside a shiny app
...	further arguments passed to or from other methods

**Details**

See [http://vnijs.github.io/radiant/quant/prob\\_calc.html](http://vnijs.github.io/radiant/quant/prob_calc.html) for an example in Radiant

---

plot.prob_unif	<i>Plot method for the probability calculator (uniform)</i>
----------------	---

---

**Description**

Plot method for the probability calculator (uniform)

**Usage**

```
## S3 method for class 'prob_unif'
plot(x, type = "values", shiny = FALSE, ...)
```

**Arguments**

x	Return value from <a href="#">prob_unif</a>
type	Probabilities or values
shiny	Did the function call originate inside a shiny app
...	further arguments passed to or from other methods

**Details**

See [http://vnijs.github.io/radiant/quant/prob\\_calc.html](http://vnijs.github.io/radiant/quant/prob_calc.html) for an example in Radiant



---

plot.regression	<i>Plot method for the regression function</i>
-----------------	--

---

## Description

Plot method for the regression function

## Usage

```
## S3 method for class 'regression'
plot(x, plots = "", lines = "", conf_lev = 0.95,
     intercept = FALSE, shiny = FALSE, ...)
```

## Arguments

x	Return value from <a href="#">regression</a>
plots	Regression plots to produce for the specified regression model. Enter "" to avoid showing any plots (default). "hist" to show histograms of all variables in the model. "correlations" for a visual representation of the correlation matrix selected variables. "scatter" to show scatter plots (or box plots for factors) for the response variable with each explanatory variable. "dashboard" for a series of six plots that can be used to evaluate model fit visually. "resid_pred" to plot the explanatory variables against the model residuals. "coef" for a coefficient plot with adjustable confidence intervals. "leverage" to show leverage plots for each explanatory variable
lines	Optional lines to include in the select plot. "line" to include a line through a scatter plot. "loess" to include a polynomial regression fit line. To include both use c("line","loess")
conf_lev	Confidence level used to estimate confidence intervals (.95 is the default)
intercept	Include the intercept in the coefficient plot (TRUE, FALSE). FALSE is the default
shiny	Did the function call originate inside a shiny app
...	further arguments passed to or from other methods

## Details

See <http://vnijs.github.io/radiant/quant/regression.html> for an example in Radiant

## See Also

[regression](#) to generate the results  
[summary.regression](#) to summarize results  
[predict.regression](#) to generate predictions

**Examples**

```

result <- regression("diamonds", "price", c("carat","clarity"))
plot(result, plots = "dashboard")
plot(result, plots = "dashboard", lines = c("line","loess"))
plot(result, plots = "coef", intercept = TRUE)
plot(result, plots = "coef", conf_lev = .99, intercept = TRUE)
plot(result, plots = "hist")
plot(result, plots = "scatter", lines = c("line","loess"))
plot(result, plots = "correlations")
plot(result, plots = "leverage")
plot(result, plots = "resid_pred", lines = "line")

```

---

plot.reg_predict	<i>Plot method for the predict.regression function</i>
------------------	--

---

**Description**

Plot method for the predict.regression function

**Usage**

```

## S3 method for class 'reg_predict'
plot(x, xvar = "", facet_row = ".", facet_col = ".",
     color = "none", conf_lev = 0.95, ...)

```

**Arguments**

x	Return value from <a href="#">predict.regression</a> .
xvar	Variable to display along the X-axis of the plot
facet_row	Create vertically arranged subplots for each level of the selected factor variable
facet_col	Create horizontally arranged subplots for each level of the selected factor variable
color	Adds color to a scatter plot to generate a heat map. For a line plot one line is created for each group and each is assigned a different colour
conf_lev	Confidence level to use for prediction intervals (.95 is the default). Note that the error bars for predictions are approximations at this point.
...	further arguments passed to or from other methods

**Details**

See <http://vnijs.github.io/radiant/quant/regression.html> for an example in Radiant

**See Also**

[regression](#) to generate the result  
[summary.regression](#) to summarize results  
[plot.regression](#) to plot results  
[predict.regression](#) to generate predictions

**Examples**

```

result <- regression("diamonds", "price", c("carat","clarity"))
pred <- predict(result, pred_cmd = "carat = 1:10")
plot(pred, xvar = "carat")
result <- regression("diamonds", "price", c("carat","clarity"), int_var = "carat:clarity")
dpred <- getdata("diamonds") %>% slice(1:100)
pred <- predict(result, pred_data = "dpred")
plot(pred, xvar = "carat", color = "clarity")
rm(dpred, envir = .GlobalEnv)

```

---

plot.repeater	<i>Plot repeated simulation</i>
---------------	---------------------------------

---

**Description**

Plot repeated simulation

**Usage**

```

## S3 method for class 'repeater'
plot(x, sum_vars = "", byvar = "sim", fun = "sum_rm",
     form = "", shiny = FALSE, ...)

```

**Arguments**

x	Return value from <a href="#">repeater</a>
sum_vars	(Numerical) variables to summaries
byvar	Variable(s) to group data by before summarizing
fun	Functions to use for summarizing
form	A string with the formula to evaluate (e.g., "profit = demand * (price - cost)")
shiny	Did the function call originate inside a shiny app
...	further arguments passed to or from other methods

---

plot.simulater	<i>Plot method for the simulater function</i>
----------------	---

---

**Description**

Plot method for the simulater function

**Usage**

```

## S3 method for class 'simulater'
plot(x, shiny = FALSE, ...)

```

**Arguments**

x	Return value from <a href="#">simulator</a>
shiny	Did the function call originate inside a shiny app
...	further arguments passed to or from other methods

**Details**

See <http://vnijs.github.io/radiant/quant/simulator> for an example in Radiant

**See Also**

[single\\_mean](#) to generate the result  
[summary.single\\_mean](#) to summarize results

**Examples**

```
result <- simulator(const = "cost 3", norm = "demand 2000 1000",
  discrete = "price 5 .3 8 .7",
  form = "profit = demand * (price - cost)")
plot(result)
```

---

plot.single_mean	<i>Plot method for the single_mean function</i>
------------------	---

---

**Description**

Plot method for the single\_mean function

**Usage**

```
## S3 method for class 'single_mean'
plot(x, plots = "hist", shiny = FALSE, ...)
```

**Arguments**

x	Return value from <a href="#">single_mean</a>
plots	Plots to generate. "hist" shows a histogram of the data along with vertical lines that indicate the sample mean and the confidence interval. "simulate" shows the location of the sample mean and the comparison value (comp_value). Simulation is used to demonstrate the sampling variability in the data under the null-hypothesis
shiny	Did the function call originate inside a shiny app
...	further arguments passed to or from other methods

**Details**

See [http://vnijs.github.io/radiant/quant/single\\_mean.html](http://vnijs.github.io/radiant/quant/single_mean.html) for an example in Radiant

**See Also**

[single\\_mean](#) to generate the result

[summary.single\\_mean](#) to summarize results

**Examples**

```
result <- single_mean("diamonds","price", comp_value = 3500)
plot(result, plots = c("hist", "simulate"))
```

---

plot.single_prop	<i>Plot method for the single_prop function</i>
------------------	---

---

**Description**

Plot method for the single\_prop function

**Usage**

```
## S3 method for class 'single_prop'
plot(x, plots = "bar", shiny = FALSE, ...)
```

**Arguments**

x	Return value from <a href="#">single_prop</a>
plots	Plots to generate. "bar" shows a bar chart of the data. The "simulate" chart shows the location of the sample proportion and the comparison value (comp_value). Simulation is used to demonstrate the sampling variability in the data under the null-hypothesis
shiny	Did the function call originate inside a shiny app
...	further arguments passed to or from other methods

**Details**

See [http://vnijs.github.io/radiant/quant/single\\_prop.html](http://vnijs.github.io/radiant/quant/single_prop.html) for an example in Radiant

**See Also**

[single\\_prop](#) to generate the result

[summary.single\\_prop](#) to summarize the results

**Examples**

```
result <- single_prop("diamonds","clarity", lev = "IF", comp_value = 0.05)
plot(result, plots = c("hist", "simulate"))
result <- single_prop("titanic","pclass", lev = "1st")
plot(result, plots = c("hist", "simulate"))
```

---

pmap	<i>Attribute based brand maps</i>
------	-----------------------------------

---

## Description

Attribute based brand maps

## Usage

```
pmap(dataset, brand, attr, pref = "", nr_dim = 2, data_filter = "")
```

## Arguments

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an <code>r_data</code> list from Radiant
brand	A character variable with brand names
attr	Names of numeric variables
pref	Names of numeric brand preference measures
nr_dim	Number of dimensions
data_filter	Expression entered in, e.g., Data > View to filter the dataset in Radiant. The expression should be a string (e.g., "price > 10000")

## Details

See <http://vnijs.github.io/radiant/marketing/pmap.html> for an example in Radiant

## Value

A list of all variables defined in the function as an object of class `pmap`

## See Also

`summary.pmap` to summarize results

`plot.pmap` to plot results

## Examples

```
result <- pmap("computer", "brand", "high_end:business")
```

---

predict.glm_reg	<i>Predict method for the glm_reg function</i>
-----------------	--

---

## Description

Predict method for the glm\_reg function

## Usage

```
## S3 method for class 'glm_reg'
predict(object, pred_vars = "", pred_data = "",
        pred_cmd = "", prn = TRUE, ...)
```

## Arguments

object	Return value from <a href="#">glm_reg</a>
pred_vars	Variables selected to generate predictions
pred_data	Provide the name of a dataframe to generate predictions (e.g., "titanic"). The dataset must contain all columns used in the estimation
pred_cmd	Generate predictions using a command. For example, 'pclass = levels(pclass)' would produce predictions for the different levels of factor 'pclass'. To add another variable use a ',' (e.g., 'pclass = levels(pclass), age = seq(0,100,20)')
prn	Print prediction results (default is TRUE)
...	further arguments passed to or from other methods

## Details

See [http://vnijs.github.io/radiant/quant/glm\\_reg.html](http://vnijs.github.io/radiant/quant/glm_reg.html) for an example in Radiant

## See Also

[glm\\_reg](#) to generate the result  
[summary.glm\\_reg](#) to summarize results  
[plot.glm\\_reg](#) to plot results  
[plot.glm\\_predict](#) to plot prediction output

## Examples

```
result <- glm_reg("titanic", "survived", c("pclass","sex"), lev = "Yes")
predict(result, pred_cmd = "pclass = levels(pclass)")
glm_reg("titanic", "survived", c("pclass","sex"), lev = "Yes") %>%
  predict(pred_cmd = "sex = c('male','female')")
glm_reg("titanic", "survived", c("pclass","sex"), lev = "Yes") %>%
  predict(pred_data = "titanic")
```

---

predict.regression	<i>Predict method for the regression function</i>
--------------------	---

---

## Description

Predict method for the regression function

## Usage

```
## S3 method for class 'regression'
predict(object, pred_vars = "", pred_data = "",
        pred_cmd = "", conf_lev = 0.95, prn = TRUE, ...)
```

## Arguments

object	Return value from <a href="#">regression</a>
pred_vars	Variables to use for prediction
pred_data	Name of the dataset to use for prediction
pred_cmd	Command used to generate data for prediction
conf_lev	Confidence level used to estimate confidence intervals (.95 is the default)
prn	Print prediction results (default is TRUE)
...	further arguments passed to or from other methods

## Details

See <http://vnij.s.github.io/radiant/quant/regression.html> for an example in Radiant

## See Also

[regression](#) to generate the result  
[summary.regression](#) to summarize results  
[plot.regression](#) to plot results

## Examples

```
result <- regression("diamonds", "price", c("carat","clarity"))
predict(result, pred_cmd = "carat = 1:10")
predict(result, pred_cmd = "clarity = levels(clarity)")
result <- regression("diamonds", "price", c("carat","clarity"), int_var = c("carat:clarity"))
dpred <- getdata("diamonds") %>% slice(1:10)
predict(result, pred_data = "dpred")
rm(dpred, envir = .GlobalEnv)
```



---

pre_factor	<i>Evaluate if data are appropriate for PCA / Factor analysis</i>
------------	---

---

**Description**

Evaluate if data are appropriate for PCA / Factor analysis

**Usage**

```
pre_factor(dataset, vars, data_filter = "")
```

**Arguments**

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an <code>r_data</code> list from Radiant
vars	Variables to include in the analysis
data_filter	Expression entered in, e.g., Data > View to filter the dataset in Radiant. The expression should be a string (e.g., "price > 10000")

**Details**

See [http://vnijs.github.io/radiant/marketing/pre\\_factor.html](http://vnijs.github.io/radiant/marketing/pre_factor.html) for an example in Radiant

**Value**

A list with all variables defined in the function as an object of class `pre_factor`

**See Also**

`summary.pre_factor` to summarize results  
`plot.pre_factor` to plot results

**Examples**

```
result <- pre_factor("diamonds",c("price","carat","table"))
```

---

print.gtable	<i>Print/draw method for grobs produced by gridExtra</i>
--------------	--

---

**Description**

Print/draw method for grobs produced by gridExtra

**Usage**

```
## S3 method for class 'gtable'
print(x, ...)
```

**Arguments**

x                      a gtable object

...                    further arguments passed to or from other methods

**Details**

Print method for ggplot grobs created using arrangeGrob. Code is based on <https://github.com/baptiste/gridextra/blob/master/inst/testing/shiny.R>

**Value**

A plot

---

prob_binom	<i>Probability calculator for the binomial distribution (binomial)</i>
------------	--

---

**Description**

Probability calculator for the binomial distribution (binomial)

**Usage**

```
prob_binom(n, p, lb = NA, ub = NA, plb = NA, pub = NA, dec = 3)
```

**Arguments**

n                      Number of trials

p                      Probability

lb                     Lower bound on the number of successes

ub                     Upper bound on the number of successes

plb                    Lower probability bound

pub                    Upper probability bound

dec                    Number of decimals to show

**Details**

See [http://vnijs.github.io/radiant/quant/prob\\_calc.html](http://vnijs.github.io/radiant/quant/prob_calc.html) for an example in Radiant

---

prob_chisq	<i>Probability calculator for the chi-squared distribution</i>
------------	--

---

**Description**

Probability calculator for the chi-squared distribution

**Usage**

```
prob_chisq(df, lb = NA, ub = NA, plb = NA, pub = NA, dec = 3)
```

**Arguments**

df	Degrees of freedom
lb	Lower bound (default is -Inf)
ub	Upper bound (default is Inf)
plb	Lower probability bound
pub	Upper probability bound
dec	Number of decimals to show

**Details**

See [http://vnijs.github.io/radiant/quant/prob\\_calc.html](http://vnijs.github.io/radiant/quant/prob_calc.html) for an example in Radiant

---

prob_disc	<i>Probability calculator for the discrete distribution (discrete)</i>
-----------	--

---

**Description**

Probability calculator for the discrete distribution (discrete)

**Usage**

```
prob_disc(v, p, lb = NA, ub = NA, plb = NA, pub = NA, dec = 3)
```

**Arguments**

v	Values
p	Probabilities
lb	Lower bound on the number of successes
ub	Upper bound on the number of successes
plb	Lower probability bound
pub	Upper probability bound
dec	Number of decimals to show

**Details**

See [http://vnijs.github.io/radiant/quant/prob\\_calc.html](http://vnijs.github.io/radiant/quant/prob_calc.html) for an example in Radiant

---

prob_fdist	<i>Probability calculator for the F-distribution</i>
------------	--

---

**Description**

Probability calculator for the F-distribution

**Usage**

```
prob_fdist(df1, df2, lb = NA, ub = NA, plb = NA, pub = NA, dec = 3)
```

**Arguments**

df1	Degrees of freedom
df2	Degrees of freedom
lb	Lower bound (default is -Inf)
ub	Upper bound (default is Inf)
plb	Lower probability bound
pub	Upper probability bound
dec	Number of decimals to show

**Details**

See [http://vnijs.github.io/radiant/quant/prob\\_calc.html](http://vnijs.github.io/radiant/quant/prob_calc.html) for an example in Radiant

---

prob_norm	<i>Probability calculator for the normal distribution</i>
-----------	---

---

**Description**

Probability calculator for the normal distribution

**Usage**

```
prob_norm(mean, stdev, lb = NA, ub = NA, plb = NA, pub = NA, dec = 3)
```

**Arguments**

mean	Mean
stdev	Standard deviation
lb	Lower bound (default is -Inf)
ub	Upper bound (default is Inf)
plb	Lower probability bound
pub	Upper probability bound
dec	Number of decimals to show

**Details**

See [http://vnijs.github.io/radiant/quant/prob\\_calc.html](http://vnijs.github.io/radiant/quant/prob_calc.html) for an example in Radiant

---

prob_tdist	<i>Probability calculator for the t distribution</i>
------------	--

---

**Description**

Probability calculator for the t distribution

**Usage**

```
prob_tdist(df, mean = 0, stdev = 1, lb = NA, ub = NA, plb = NA,  
           pub = NA, dec = 3)
```

**Arguments**

df	Degrees of freedom
mean	Mean
stdev	Standard deviation
lb	Lower bound (default is -Inf)
ub	Upper bound (default is Inf)
plb	Lower probability bound
pub	Upper probability bound
dec	Number of decimals to show

**Details**

See [http://vnijs.github.io/radiant/quant/prob\\_calc.html](http://vnijs.github.io/radiant/quant/prob_calc.html) for an example in Radiant

---

prob_unif	<i>Probability calculator for the uniform distribution</i>
-----------	--

---

**Description**

Probability calculator for the uniform distribution

**Usage**

```
prob_unif(min, max, lb = NA, ub = NA, plb = NA, pub = NA, dec = 3)
```

**Arguments**

min	Minmum value
max	Maximum value
lb	Lower bound
ub	Upper bound
plb	Lower probability bound
pub	Upper probability bound
dec	Number of decimals to show

**Details**

See [http://vnijs.github.io/radiant/quant/prob\\_calc.html](http://vnijs.github.io/radiant/quant/prob_calc.html) for an example in Radiant

---

publishers	<i>Comic publishers</i>
------------	-------------------------

---

**Description**

Comic publishers

**Usage**

```
data(publishers)
```

**Format**

A data frame with 3 rows and 2 variables

**Details**

List of comic publishers from [http://stat545-ubc.github.io/bit001\\_dplyr-cheatsheet.html](http://stat545-ubc.github.io/bit001_dplyr-cheatsheet.html). The dataset is used to illustrate data merging / joining. Description provided in `attr(publishers,"description")`

---

radiant	<i>radiant</i>
---------	----------------

---

**Description**

radiant

Launch Radiant in the default browser

**Usage**

```
radiant(app = c("analytics", "marketing", "quant", "base"))
```

**Arguments**

app	Choose the app to run. One of "base", "quant", "analytics", "marketing". "analytics" is the default
-----	---

**Details**

See <http://vnijs.github.io/radiant> for documentation and tutorials

**Examples**

```
if (interactive()) {
  radiant("base")
  radiant("quant")
  radiant("marketing")
  radiant("analytics")
}
```

---

recode	<i>Exporting the recode function from the car package</i>
--------	---

---

**Description**

Exporting the recode function from the car package

---

regression	<i>Linear regression using OLS</i>
------------	------------------------------------

---

**Description**

Linear regression using OLS

**Usage**

```
regression(dataset, dep_var, indep_var, int_var = "", check = "", dec = 3,
  data_filter = "")
```

**Arguments**

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an <code>r_data</code> list from Radiant
dep_var	The response variable in the regression
indep_var	Explanatory variables in the regression
int_var	Interaction terms to include in the model
check	"standardize" to see standardized coefficient estimates. "stepwise" to apply step-wise selection of variables in estimation
dec	Number of decimals to show
data_filter	Expression entered in, e.g., Data > View to filter the dataset in Radiant. The expression should be a string (e.g., "price > 10000")

**Details**

See <http://vnijs.github.io/radiant/quant/regression.html> for an example in Radiant

**Value**

A list of all variables used in regression as an object of class regression

**See Also**

`summary.regression` to summarize results  
`plot.regression` to plot results  
`predict.regression` to generate predictions

**Examples**

```
result <- regression("diamonds", "price", c("carat","clarity"))
result <- regression("diamonds", "price", c("carat","clarity"), check = "standardize")
```

---

repeater	<i>Repeat simulation</i>
----------	--------------------------

---

### Description

Repeat simulation

### Usage

```
repeater(nr = 12, vars = "", grid = "", seed = "", name = "",
  sim = "")
```

### Arguments

nr	Number times to repeat the simulation
vars	Variables to use in repeated simulation
grid	Expression to use in grid search for constants
seed	To repeat a simulation with the same randomly generated values enter a number into Random seed input box.
name	To save the simulated data for further analysis specify a name in the Sim name input box. You can then investigate the simulated data by choosing the specified name from the Datasets dropdown in any of the other Data tabs.
sim	Return value from the simulator function

### Examples

```
result <- simulator(const = "cost 3", norm = "demand 2000 1000",
  discrete = "price 5 .3 8 .7",
  form = "profit = demand * (price - cost)")

repeater(sim = result)
```

---

rndnames	<i>100 random names</i>
----------	-------------------------

---

### Description

100 random names

### Usage

```
data(rndnames)
```

### Format

A data frame with 100 rows and 2 variables

### Details

A list of 100 random names generated by [listofrandomnames.com](http://listofrandomnames.com). Description provided in `attr(rndnames,"description")`



---

sample_size	<i>Sample size calculation</i>
-------------	--------------------------------

---

**Description**

Sample size calculation

**Usage**

```
sample_size(type = "mean", err_mean = 2, sd_mean = 10, err_prop = 0.1,  
            p_prop = 0.5, conf_lev = 1.96, incidence = 1, response = 1,  
            pop_correction = "no", pop_size = 1000000)
```

**Arguments**

type	Choose "mean" or "proportion"
err_mean	Acceptable Error for Mean
sd_mean	Standard deviation for Mean
err_prop	Acceptable Error for Proportion
p_prop	Initial proportion estimate for Proportion
conf_lev	Confidence level
incidence	Incidence rate (i.e., fraction of valid respondents)
response	Response rate
pop_correction	Apply correction for population size ("yes","no")
pop_size	Population size

**Details**

See [http://vnijs.github.io/radiant/quant/sample\\_size.html](http://vnijs.github.io/radiant/quant/sample_size.html) for an example in Radiant

**Value**

A list of variables defined in sample\_size as an object of class sample\_size

**See Also**

[summary.sample\\_size](#) to summarize results

**Examples**

```
result <- sample_size(type = "mean", err_mean = 2, sd_mean = 10)
```

---

sampling	<i>Simple random sampling</i>
----------	-------------------------------

---

**Description**

Simple random sampling

**Usage**

```
sampling(dataset, var, sample_size, data_filter = "")
```

**Arguments**

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an <code>r_data</code> list from Radiant
var	The variable to sample from
sample_size	Number of units to select
data_filter	Expression entered in, e.g., Data > View to filter the dataset in Radiant. The expression should be a string (e.g., "price > 10000")

**Details**

See <http://vnijs.github.io/radiant/quant/sampling.html> for an example in Radiant

**Value**

A list of variables defined in sampling as an object of class `sampling`

**See Also**

[summary.sampling](#) to summarize results

**Examples**

```
result <- sampling("rndnames", "Names", 10)
```

---

save_factors	<i>Save factor scores to active dataset</i>
--------------	---

---

**Description**

Save factor scores to active dataset

**Usage**

```
save_factors(object)
```

**Arguments**

object	Return value from <a href="#">full_factor</a>
--------	---

## Details

See [http://vnijs.github.io/radiant/marketing/full\\_factor.html](http://vnijs.github.io/radiant/marketing/full_factor.html) for an example in Radiant

## Examples

```
result <- full_factor("diamonds", c("price", "carat", "table"))
save_factors(result)
head(diamonds)
```

---

save_membership	<i>Add a cluster membership variable to the active dataset</i>
-----------------	--

---

## Description

Add a cluster membership variable to the active dataset

## Usage

```
save_membership(object)
```

## Arguments

object	Return value from <a href="#">kmeans_clus</a>
--------	---

## Details

See [http://vnijs.github.io/radiant/marketing/kmeans\\_clus.html](http://vnijs.github.io/radiant/marketing/kmeans_clus.html) for an example in Radiant

## See Also

[kmeans\\_clus](#) to generate results  
[summary.kmeans\\_clus](#) to summarize results  
[plot.kmeans\\_clus](#) to plot results

## Examples

```
result <- kmeans_clus("shopping", vars = c("v1:v6"))
save_membership(result)
head(shopping)
```

---

sdp_rm	<i>Standard deviation for the population na.rm = TRUE</i>
--------	---

---

**Description**

Standard deviation for the population na.rm = TRUE

**Usage**

```
sdp_rm(x)
```

**Arguments**

x	Input variable
---	----------------

**Value**

Standard deviation for the population

**Examples**

```
sdp_rm(rnorm(100))
```

---

sdw	<i>Standard deviation of weighted sum of variables</i>
-----	--

---

**Description**

Standard deviation of weighted sum of variables

**Usage**

```
sdw(...)
```

**Arguments**

...	A matched number of weights and stocks
-----	--

**Value**

A vector of standard deviation estimates

---

sd_rm	<i>Standard deviation with na.rm = TRUE</i>
-------	---

---

**Description**

Standard deviation with na.rm = TRUE

**Usage**

```
sd_rm(x)
```

**Arguments**

x	Input variable
---	----------------

**Value**

Standard deviation

**Examples**

```
sd_rm(rnorm(100))
```

---

serr	<i>Standard error</i>
------	-----------------------

---

**Description**

Standard error

**Usage**

```
serr(x, na.rm = TRUE)
```

**Arguments**

x	Input variable
na.rm	If TRUE missing values are removed before calculation

**Value**

Standard error

**Examples**

```
serr(rnorm(100))
```

---

set_class	<i>Alias used to set the class for analysis function return</i>
-----------	---

---

**Description**

Alias used to set the class for analysis function return

**Usage**

```
set_class()
```

**Examples**

```
foo <- function(x) x^2 %>% set_class(c("foo", class(.)))
```

---

shopping	<i>Shopping attitudes</i>
----------	---------------------------

---

**Description**

Shopping attitudes

**Usage**

```
data(shopping)
```

**Format**

A data frame with 20 rows and 7 variables

**Details**

Attitudinal data on shopping for 20 consumers. Description provided in attr(shopping, "description")

---

show_duplicated	<i>Show all rows with duplicated values (not just the first or last)</i>
-----------------	--

---

**Description**

Show all rows with duplicated values (not just the first or last)

**Usage**

```
show_duplicated(tbl, ...)
```

**Arguments**

tbl	Data frame to add transformed variables to
...	Variables used to evaluate row uniqueness

## Details

If an entire row is duplicated use "duplicated" to show only one of the duplicated rows. When using a subset of variables to establish uniqueness it may be of interest to show all rows that have (some) duplicate elements

## Examples

```
bind_rows(mtcars, mtcars[c(1,5,7),]) %>%  
  show_duplicated(mpg, cyl)  
bind_rows(mtcars, mtcars[c(1,5,7),]) %>%  
  show_duplicated
```

---

sig_stars	<i>Add stars '***' to a data.frame (from broom's 'tidy' function) based on p.values</i>
-----------	---

---

## Description

Add stars '\*\*\*' to a data.frame (from broom's 'tidy' function) based on p.values

## Usage

```
sig_stars(pval)
```

## Arguments

pval	Vector of p-values
------	--------------------

## Details

Add stars to output from broom's 'tidy' function

## Value

A vector of stars

## Examples

```
sig_stars(c(.0009, .049, .009, .4, .09))
```

---

simulater

---

*Simulate data for decision analysis*


---

## Description

Simulate data for decision analysis

## Usage

```
simulater(const = "", lnorm = "", norm = "", unif = "", discrete = "",
  binom = "", sequ = "", grid = "", data = "", form = "", seed = "",
  name = "", nr = 1000, dat = NULL)
```

## Arguments

const	A string listing the constants to include in the analysis (e.g., "cost = 3; size = 4")
lnorm	A string listing the log-normally distributed random variables to include in the analysis (e.g., "demand 2000 1000" where the first number is the log-mean and the second is the log-standard deviation)
norm	A string listing the normally distributed random variables to include in the analysis (e.g., "demand 2000 1000" where the first number is the mean and the second is the standard deviation)
unif	A string listing the uniformly distributed random variables to include in the analysis (e.g., "demand 0 1" where the first number is the minimum value and the second is the maximum value)
discrete	A string listing the random variables with a discrete distribution to include in the analysis (e.g., "price 5 .3 8 .7" where for each pair of numbers the first is the value and the second the probability)
binom	A string listing the random variables with a binomial distribution to include in the analysis (e.g., "crash 100 .01") where the first number is the number of trials and the second is the probability of success)
sequ	A string listing the start and end for a sequence to include in the analysis (e.g., "trend 1 100 1"). The number of 'steps' is determined by the number of simulations.
grid	A string listing the start, end, and step for a set of sequences to include in the analysis (e.g., "trend 1 100 1"). The number of rows in the expanded will override the number of simulations
data	Name of a dataset to be used in the calculations
form	A string with the formula to evaluate (e.g., "profit = demand * (price - cost)")
seed	To repeat a simulation with the same randomly generated values enter a number into Random seed input box.
name	To save the simulated data for further analysis specify a name in the Sim name input box. You can then investigate the simulated data by choosing the specified name from the Datasets dropdown in any of the other Data tabs.
nr	Number of simulations
dat	Data list from previous simulation. Used by repeater function



**Details**

See <http://vnijs.github.io/radiant/quant/simulator.html> for an example in Radiant

**Value**

A data.frame with the created variables

**See Also**

[summary.simulator](#) to summarize results

[plot.simulator](#) to plot results

**Examples**

```
result <- simulator(const = "cost 3", norm = "demand 2000 1000",
  discrete = "price 5 .3 8 .7",
  form = "profit = demand * (price - cost)")
```

---

sim_cleaner	<i>Clean input command string</i>
-------------	-----------------------------------

---

**Description**

Clean input command string

**Usage**

```
sim_cleaner(x)
```

**Arguments**

x	Input string
---	--------------

**Value**

Cleaned string

---

sim_splitter	<i>Split input command string</i>
--------------	-----------------------------------

---

**Description**

Split input command string

**Usage**

```
sim_splitter(x, symbol = " ")
```

**Arguments**

x	Input string
symbol	Symbol used to split the command string

**Value**

Split input command string

---

sim_summary	<i>Print simulation summary</i>
-------------	---------------------------------

---

**Description**

Print simulation summary

**Usage**

```
sim_summary(dat, dc = getclass(dat), fun = "", dec = 4)
```

**Arguments**

dat	Simulated data
dc	Variable classes
fun	Summary function to apply
dec	Number of decimals to show

---

`single_mean`*Compare a sample mean to a population mean*

---

## Description

Compare a sample mean to a population mean

## Usage

```
single_mean(dataset, var, comp_value = 0, alternative = "two.sided",  
             conf_lev = 0.95, dec = 3, data_filter = "")
```

## Arguments

<code>dataset</code>	Dataset name (string). This can be a dataframe in the global environment or an element in an <code>r_data</code> list from Radiant
<code>var</code>	The variable selected for the mean comparison
<code>comp_value</code>	Population value to compare to the sample mean
<code>alternative</code>	The alternative hypothesis ("two.sided", "greater", or "less")
<code>conf_lev</code>	Span for the confidence interval
<code>dec</code>	Number of decimals to show
<code>data_filter</code>	Expression entered in, e.g., Data > View to filter the dataset in Radiant. The expression should be a string (e.g., "price > 10000")

## Details

See [http://vnijs.github.io/radiant/quant/single\\_mean.html](http://vnijs.github.io/radiant/quant/single_mean.html) for an example in Radiant

## Value

A list of variables defined in `single_mean` as an object of class `single_mean`

## See Also

`summary.single_mean` to summarize results

`plot.single_mean` to plot results

## Examples

```
single_mean("diamonds", "price")
```

---

single_prop	<i>Compare a sample proportion to a population proportion</i>
-------------	---

---

### Description

Compare a sample proportion to a population proportion

### Usage

```
single_prop(dataset, var, lev = "", comp_value = 0.5,
  alternative = "two.sided", conf_lev = 0.95, dec = 3, data_filter = "")
```

### Arguments

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an <code>r_data</code> list from Radiant
var	The variable selected for the proportion comparison
lev	The factor level selected for the proportion comparison
comp_value	Population value to compare to the sample proportion
alternative	The alternative hypothesis ("two.sided", "greater", or "less")
conf_lev	Span of the confidence interval
dec	Number of decimals to show
data_filter	Expression entered in, e.g., Data > View to filter the dataset in Radiant. The expression should be a string (e.g., "price > 10000")

### Details

See [http://vnijs.github.io/radiant/quant/single\\_prop.html](http://vnijs.github.io/radiant/quant/single_prop.html) for an example in Radiant

### Value

A list of variables used in `single_prop` as an object of class `single_prop`

### See Also

`summary.single_prop` to summarize the results

`plot.single_prop` to plot the results

### Examples

```
result <- single_prop("diamonds", "cut")
result <- single_prop("diamonds", "clarity", lev = "IF", comp_value = 0.05)
```

---

skew	<i>Exporting the skew function from the psych package</i>
------	---

---

### Description

Exporting the skew function from the psych package

---

square	<i>Calculate square of a variable</i>
--------	---------------------------------------

---

**Description**

Calculate square of a variable

**Usage**

```
square(x)
```

**Arguments**

x	Input variable
---	----------------

**Value**

$x^2$

---

sshh	<i>Hide warnings and messages and return invisible</i>
------	--

---

**Description**

Hide warnings and messages and return invisible

**Usage**

```
sshh(...)
```

**Arguments**

...	Inputs to keep quiet
-----	----------------------

**Details**

Adapted from <http://www.onthelambda.com/2014/09/17/fun-with-rprofile-and-customizing-r-startup/>

**Examples**

```
sshh( library(dplyr) )
```

---

sshhr	<i>Hide warnings and messages and return result</i>
-------	---

---

**Description**

Hide warnings and messages and return result

**Usage**

```
sshhr(...)
```

**Arguments**

...                      Inputs to keep quiet

**Details**

Adapted from <http://www.onthelambda.com/2014/09/17/fun-with-rprofile-and-customizing-r-startup/>

**Examples**

```
sshhr( library(dplyr) )
```

---

standardize	<i>Standardize</i>
-------------	--------------------

---

**Description**

Standardize

**Usage**

```
standardize(x)
```

**Arguments**

x                      Input variable

**Value**

If x is a numeric variable return  $\text{center}(x) / \text{mean}(x)$

---

state_init	<i>Set initial value for shiny input</i>
------------	--

---

## Description

Set initial value for shiny input

## Usage

```
state_init(inputvar, init = "")
```

## Arguments

inputvar	Name shiny input
init	Initial value to use if state value for input not set

## Details

Useful for radio button or checkbox

## Value

value for inputvar

## See Also

[state\\_single](#)  
[state\\_multiple](#)  
[copy\\_from](#)

## Examples

```
r_state <- list()
state_init("test")
state_init("test",0)
r_state$test <- c("a","b")
state_init("test",0)
shiny::radioButtons("rb", label = "Button:", c("a","b"), selected = state_init("rb", "a"))
r_state$rb <- "b"
shiny::radioButtons("rb", label = "Button:", c("a","b"), selected = state_init("rb", "a"))
rm(r_state)
```

---

state_multiple	<i>Set initial values for shiny input from a list of values</i>
----------------	---

---

### Description

Set initial values for shiny input from a list of values

### Usage

```
state_multiple(inputvar, vals, init = character(0))
```

### Arguments

inputvar	Name shiny input
vals	Possible values for inputvar
init	Initial value to use if state value for input not set

### Details

Useful for select input with multiple = TRUE and when you want to use inputs selected for another tool (e.g., pre\_factor and full\_factor or hier\_clus and kmeans\_clus in Radiant)

### Value

value for inputvar

### See Also

[state\\_init](#)  
[state\\_single](#)  
[copy\\_from](#)

### Examples

```
r_state <- list()
state_multiple("test",1:10,1:3)
r_state$test <- 8:10
state_multiple("test",1:10,1:3)
shiny::selectInput("sim", label = "Select:", c("a","b"),
  selected = state_multiple("sim", c("a","b")), multiple = TRUE)
r_state$sim <- c("a","b")
shiny::selectInput("sim", label = "Select:", c("a","b"),
  selected = state_single("sim", c("a","b")), multiple = TRUE)
```



---

state_single	<i>Set initial value for shiny input from a list of values</i>
--------------	--

---

## Description

Set initial value for shiny input from a list of values

## Usage

```
state_single(inputvar, vals, init = character(0))
```

## Arguments

inputvar	Name shiny input
vals	Possible values for inputvar
init	Initial value to use if state value for input not set

## Details

Useful for select input with multiple = FALSE

## Value

value for inputvar

## See Also

[state\\_init](#)  
[state\\_multiple](#)  
[copy\\_from](#)

## Examples

```
r_state <- list()
state_single("test",1:10,1)
r_state$test <- 8
state_single("test",1:10,1)
shiny::selectInput("si", label = "Select:", c("a","b"), selected = state_single("si"))
r_state$si <- "b"
shiny::selectInput("si", label = "Select:", c("a","b"), selected = state_single("si", "b"))
```

---

store_glm	<i>Store residuals or predicted values generated in the glm_reg function</i>
-----------	--

---

### Description

Store residuals or predicted values generated in the glm\_reg function

### Usage

```
store_glm(object, data = object$dataset, type = "residuals",
  name = paste0(type, "_glm"))
```

### Arguments

object	Return value from <a href="#">glm_reg</a> or <a href="#">predict.glm_reg</a>
data	Dataset name
type	Residuals ("residuals") or predictions ("predictions"). For predictions the dataset name must be provided
name	Variable name assigned to the residuals or predicted values

### Details

See [http://vnijs.github.io/radiant/quant/glm\\_reg.html](http://vnijs.github.io/radiant/quant/glm_reg.html) for an example in Radiant

### Examples

```
result <- glm_reg("titanic", "survived", "pclass", lev = "Yes")
store_glm(result)
```

---

store_reg	<i>Store residuals or predicted values generated in the regression function</i>
-----------	---

---

### Description

Store residuals or predicted values generated in the regression function

### Usage

```
store_reg(object, data = object$dataset, type = "residuals",
  name = paste0(type, "_reg"))
```

### Arguments

object	Return value from <a href="#">regression</a> or <a href="#">predict.regression</a>
data	Dataset name
type	Residuals ("residuals") or predictions ("predictions"). For predictions the dataset name must be provided
name	Variable name assigned to the residuals or predicted values

**Details**

See <http://vnijs.github.io/radiant/quant/regression.html> for an example in Radiant

**Examples**

```
result <- regression("diamonds", "price", c("carat","clarity"))
store_reg(result)
```

---

summary.compare\_means   *Summary method for the compare\_means function*

---

**Description**

Summary method for the compare\_means function

**Usage**

```
## S3 method for class 'compare_means'
summary(object, show = FALSE, ...)
```

**Arguments**

object	Return value from <a href="#">compare_means</a>
show	Show additional output (i.e., t.value, df, and confidence interval)
...	further arguments passed to or from other methods

**Details**

See [http://vnijs.github.io/radiant/quant/compare\\_means.html](http://vnijs.github.io/radiant/quant/compare_means.html) for an example in Radiant

**See Also**

[compare\\_means](#) to calculate results  
[plot.compare\\_means](#) to plot results

**Examples**

```
result <- compare_means("diamonds","cut","price")
summary(result)
result <- diamonds %>% tbl_df %>% compare_means("x","y")
summary(result)
result <- diamonds %>% tbl_df %>% group_by(cut) %>% compare_means("x",c("x","y"))
summary(result)
```

---

summary.compare\_props    *Summary method for the compare\_props function*

---

### Description

Summary method for the compare\_props function

### Usage

```
## S3 method for class 'compare_props'
summary(object, show = FALSE, ...)
```

### Arguments

object	Return value from <a href="#">compare_props</a>
show	Show additional output (i.e., chisq.value, df, and confidence interval)
...	further arguments passed to or from other methods

### Details

See [http://vnijs.github.io/radiant/quant/compare\\_props.html](http://vnijs.github.io/radiant/quant/compare_props.html) for an example in Radiant

### See Also

[compare\\_props](#) to calculate results  
[plot.compare\\_props](#) to plot results

### Examples

```
result <- compare_props("titanic", "pclass", "survived")
summary(result)
titanic %>% compare_props("pclass", "survived") %>% summary
```

---

summary.conjoint    *Summary method for the conjoint function*

---

### Description

Summary method for the conjoint function

### Usage

```
## S3 method for class 'conjoint'
summary(object, mc_diag = FALSE, ...)
```

### Arguments

object	Return value from <a href="#">conjoint</a>
mc_diag	Shows multicollinearity diagnostics.
...	further arguments passed to or from other methods

**Details**

See <http://vnijs.github.io/radiant/marketing/conjoint.html> for an example in Radiant

**See Also**

[conjoint](#) to generate results  
[plot.conjoint](#) to plot results

**Examples**

```
result <- conjoint("mp3", dep_var = "Rating", indep_var = "Memory:Shape")
summary(result, mc_diag = TRUE)
mp3 %>% conjoint(dep_var = "Rating", indep_var = "Memory:Shape") %>% summary(., mc_diag = TRUE)
```

---

summary.conjoint\_profiles

*Summary method for the conjoint\_profiles function*

---

**Description**

Summary method for the conjoint\_profiles function

**Usage**

```
## S3 method for class 'conjoint_profiles'
summary(object, ...)
```

**Arguments**

object	Return value from <a href="#">conjoint_profiles</a>
...	further arguments passed to or from other methods.

**Details**

See [http://vnijs.github.io/radiant/marketing/conjoint\\_profiles.html](http://vnijs.github.io/radiant/marketing/conjoint_profiles.html) for an example in Radiant

**See Also**

[conjoint\\_profiles](#) to calculate results

**Examples**

```
cp <- c("price = c('$10','$13','$16')", "sight = c('Staggered','Not Staggered')",
      "comfort = c('Average no cupholder','Average cupholder','Large cupholder')",
      "audio.visual = c('Small plain','Large plain','Large digital')",
      "food = c('No food','Hot dogs and popcorn','Gourmet food')")
result <- conjoint_profiles("cp")
summary(result)
rm(cp, envir = .GlobalEnv)
```

---

summary.correlation\_    *Summary method for the correlation function*

---

### Description

Summary method for the correlation function

### Usage

```
## S3 method for class 'correlation_'
summary(object, cutoff = 0, covar = FALSE, ...)
```

### Arguments

object	Return value from <a href="#">correlation</a>
cutoff	Show only correlations larger than the cutoff in absolute value. Default is a cutoff of 0
covar	Show the covariance matrix (default is FALSE)
...	further arguments passed to or from other methods.

### Details

See <http://vnijs.github.io/radiant/quant/correlation.html> for an example in Radiant

### See Also

[correlation](#) to calculate results  
[plot.correlation\\_](#) to plot results

### Examples

```
result <- correlation("diamonds", c("price", "carat", "clarity"))
summary(result, cutoff = .3)
diamonds %>% correlation("price:clarity") %>% summary
```

---

summary.cross\_tabs    *Summary method for the cross\_tabs function*

---

### Description

Summary method for the cross\_tabs function

### Usage

```
## S3 method for class 'cross_tabs'
summary(object, check = "", ...)
```

**Arguments**

object	Return value from <a href="#">cross_tabs</a>
check	Show table(s) for variables var1 and var2. "observed" for the observed frequencies table, "expected" for the expected frequencies table (i.e., frequencies that would be expected if the null hypothesis holds), "chi_sq" for the contribution to the overall chi-squared statistic for each cell (i.e., $(o - e)^2 / e$ ), "dev_std" for the standardized differences between the observed and expected frequencies (i.e., $(o - e) / \sqrt{e}$ ), and "dev_perc" for the percentage difference between the observed and expected frequencies (i.e., $(o - e) / e$ )
...	further arguments passed to or from other methods.

**Details**

See [http://vnijs.github.io/radiant/quant/cross\\_tabs.html](http://vnijs.github.io/radiant/quant/cross_tabs.html) for an example in Radiant

**See Also**

[cross\\_tabs](#) to calculate results  
[plot.cross\\_tabs](#) to plot results

**Examples**

```
result <- cross_tabs("newspaper", "Income", "Newspaper")
summary(result, check = c("observed", "expected", "chi_sq"))
newspaper %>% cross_tabs("Income", "Newspaper") %>% summary("observed")
```

---

summary.dtree	<i>Summary method for the dree function</i>
---------------	---

---

**Description**

Summary method for the dree function

**Usage**

```
## S3 method for class 'dtree'
summary(object, ...)
```

**Arguments**

object	Return value from <a href="#">simulator</a>
...	further arguments passed to or from other methods

**Details**

See <http://vnijs.github.io/radiant/quant/dtree.html> for an example in Radiant

**See Also**

[dtree](#) to generate the results  
[plot.dtree](#) to plot results

---

summary.explore	<i>Summary method for the explore function</i>
-----------------	--

---

### Description

Summary method for the explore function

### Usage

```
## S3 method for class 'explore'
summary(object, top = "fun", ...)
```

### Arguments

object	Return value from <a href="#">explore</a>
top	The variable (type) to display at the top of the table
...	further arguments passed to or from other methods

### Details

See <http://vnijs.github.io/radiant/base/explore.html> for an example in Radiant

### See Also

[explore](#) to generate summaries

### Examples

```
result <- explore("diamonds", "price:x")
summary(result)
result <- explore("diamonds", "price", byvar = "cut", fun = c("length", "skew"))
summary(result)
diamonds %>% explore("price:x") %>% summary
diamonds %>% explore("price", byvar = "cut", fun = c("length", "skew")) %>% summary
```

---

summary.full_factor	<i>Summary method for the full_factor function</i>
---------------------	--

---

### Description

Summary method for the full\_factor function

### Usage

```
## S3 method for class 'full_factor'
summary(object, cutoff = 0, fsort = FALSE, ...)
```



**Arguments**

object	Return value from <a href="#">full_factor</a>
cutoff	Show only loadings with (absolute) values above cutoff (default = 0)
fsort	Sort factor loadings
...	further arguments passed to or from other methods

**Details**

See [http://vnij.s.github.io/radiant/marketing/full\\_factor.html](http://vnij.s.github.io/radiant/marketing/full_factor.html) for an example in Radiant

**See Also**

[full\\_factor](#) to calculate results

[plot.full\\_factor](#) to plot results

**Examples**

```
result <- full_factor("diamonds",c("price","carat","depth","table","x"))
summary(result)
summary(result, cutoff = 0, fsort = FALSE)
summary(result, cutoff = 0, fsort = TRUE)
summary(result, cutoff = .5, fsort = TRUE)
diamonds %>% full_factor(c("price","carat","depth","table","x")) %>% summary
diamonds %>% full_factor(c("price","carat","depth","table","x")) %>% summary(cutoff = .5)
```

summary.glm\_reg

*Summary method for the glm\_reg function***Description**

Summary method for the glm\_reg function

**Usage**

```
## S3 method for class 'glm_reg'
summary(object, sum_check = "", conf_lev = 0.95,
        test_var = "", ...)
```

**Arguments**

object	Return value from <a href="#">glm_reg</a>
sum_check	Optional output or estimation parameters. "rsme" to show the root mean squared error. "sumsquares" to show the sum of squares table. "vif" to show multicollinearity diagnostics. "confint" to show coefficient confidence interval estimates.
conf_lev	Confidence level to use for coefficient and odds confidence intervals (.95 is the default)
test_var	Variables to evaluate in model comparison (i.e., a competing models Chi-squared test)
...	further arguments passed to or from other methods

## Details

See [http://vnijs.github.io/radiant/quant/glm\\_reg.html](http://vnijs.github.io/radiant/quant/glm_reg.html) for an example in Radiant

## See Also

`glm_reg` to generate the results  
`plot.glm_reg` to plot the results  
`predict.glm_reg` to generate predictions  
`plot.glm_predict` to plot prediction output

## Examples

```
result <- glm_reg("titanic", "survived", "pclass", lev = "Yes")
summary(result, test_var = "pclass")
res <- glm_reg("titanic", "survived", c("pclass", "sex"), int_var="pclass:sex", lev="Yes")
summary(res, sum_check = c("vif", "confint", "odds"))
titanic %>% glm_reg("survived", c("pclass", "sex", "age"), lev = "Yes") %>% summary("vif")
```

---

summary.goodness

*Summary method for the goodness function*


---

## Description

Summary method for the goodness function

## Usage

```
## S3 method for class 'goodness'
summary(object, check = "", ...)
```

## Arguments

object	Return value from <code>goodness</code>
check	Show table(s) for the selected variable (var). "observed" for the observed frequencies table, "expected" for the expected frequencies table (i.e., frequencies that would be expected if the null hypothesis holds), "chi_sq" for the contribution to the overall chi-squared statistic for each cell (i.e., $(o - e)^2 / e$ ), "dev_std" for the standardized differences between the observed and expected frequencies (i.e., $(o - e) / \sqrt{e}$ ), and "dev_perc" for the percentage difference between the observed and expected frequencies (i.e., $(o - e) / e$ )
...	further arguments passed to or from other methods.

## Details

See <http://vnijs.github.io/radiant/quant/goodness> for an example in Radiant

## See Also

`goodness` to calculate results  
`plot.goodness` to plot results

**Examples**

```
result <- goodness("newspaper", "Income", c(.3, .7))
summary(result, check = c("observed", "expected", "chi_sq"))
newspaper %>% goodness("Income", c(.3, .7)) %>% summary("observed")
```

---

summary.hier_clus	<i>Summary method for the hier_clus function</i>
-------------------	--

---

**Description**

Summary method for the hier\_clus function

**Usage**

```
## S3 method for class 'hier_clus'
summary(object, ...)
```

**Arguments**

object	Return value from <a href="#">hier_clus</a>
...	further arguments passed to or from other methods

**Details**

See [http://vnijs.github.io/radiant/marketing/hier\\_clus.html](http://vnijs.github.io/radiant/marketing/hier_clus.html) for an example in Radiant

**See Also**

[summary.hier\\_clus](#) to summarize results  
[plot.hier\\_clus](#) to plot results

**Examples**

```
result <- hier_clus("shopping", vars = c("v1:v6"))
summary(result)
```

---

summary.kmeans_clus	<i>Summary method for kmeans_clus</i>
---------------------	---------------------------------------

---

**Description**

Summary method for kmeans\_clus

**Usage**

```
## S3 method for class 'kmeans_clus'
summary(object, ...)
```

**Arguments**

object	Return value from <a href="#">kmeans_clus</a>
...	further arguments passed to or from other methods

**Details**

See [http://vnijs.github.io/radiant/marketing/kmeans\\_clus.html](http://vnijs.github.io/radiant/marketing/kmeans_clus.html) for an example in Radiant

**See Also**

[kmeans\\_clus](#) to generate results  
[plot.kmeans\\_clus](#) to plot results  
[save\\_membership](#) to add cluster membership to the selected dataset

**Examples**

```
result <- kmeans_clus("shopping", vars = c("v1:v6"))
summary(result)
shopping %>% kmeans_clus(vars = c("v1:v6"), nr_clus = 3) %>% summary
```

summary.mds

*Summary method for the mds function***Description**

Summary method for the mds function

**Usage**

```
## S3 method for class 'mds'
summary(object, dec = 1, ...)
```

**Arguments**

object	Return value from <a href="#">mds</a>
dec	Rounding to use for output (default = 0). +1 used for coordinates. +2 used for stress measure. Not currently accessible in Radiant
...	further arguments passed to or from other methods

**Details**

See <http://vnijs.github.io/radiant/marketing/mds.html> for an example in Radiant

**See Also**

[mds](#) to calculate results  
[plot.mds](#) to plot results

**Examples**

```
result <- mds("city", "from", "to", "distance")
summary(result)
summary(result, dec = 2)
city %>% mds("from", "to", "distance") %>% summary
```

summary.pivotr

*Summary method for pivotr***Description**

Summary method for pivotr

**Usage**

```
## S3 method for class 'pivotr'
summary(object, chi2 = FALSE, shiny = FALSE, ...)
```

**Arguments**

object	Return value from <a href="#">pivotr</a>
chi2	If TRUE calculate the chi-square statistic for the (pivot) table
shiny	Did the function call originate inside a shiny app
...	further arguments passed to or from other methods

**Details**

See <http://vnijs.github.io/radiant/base/pivotr.html> for an example in Radiant

**See Also**

[pivotr](#) to create the pivot-table using dplyr

**Examples**

```
pivotr("diamonds", cvars = "cut") %>% summary
pivotr("diamonds", cvars = "cut") %>% summary
pivotr("diamonds", cvars = "cut:clarity", nvar = "price") %>% summary
```

summary.pmap

*Summary method for the pmap function***Description**

Summary method for the pmap function

**Usage**

```
## S3 method for class 'pmap'
summary(object, cutoff = 0, ...)
```

**Arguments**

object	Return value from <a href="#">pmap</a>
cutoff	Show only loadings with (absolute) values above cutoff (default = 0)
...	further arguments passed to or from other methods

**Details**

See <http://vnijs.github.io/radiant/marketing/pmap.html> for an example in Radiant

**See Also**

[pmap](#) to calculate results  
[plot.pmap](#) to plot results

**Examples**

```
result <- pmap("computer", "brand", "high_end:business")
summary(result)
summary(result, cutoff = .3)
result <- pmap("computer", "brand", "high_end:dated", pref = c("innovative", "business"))
summary(result)
computer %>% pmap("brand", "high_end:dated", pref = c("innovative", "business")) %>%
  summary
```

summary.pre\_factor

*Summary method for the pre\_factor function***Description**

Summary method for the pre\_factor function

**Usage**

```
## S3 method for class 'pre_factor'
summary(object, ...)
```

**Arguments**

object	Return value from <a href="#">pre_factor</a>
...	further arguments passed to or from other methods

**Details**

See [http://vnijs.github.io/radiant/marketing/pre\\_factor.html](http://vnijs.github.io/radiant/marketing/pre_factor.html) for an example in Radiant

**See Also**

[pre\\_factor](#) to calculate results  
[plot.pre\\_factor](#) to plot results

**Examples**

```
result <- pre_factor("diamonds",c("price","carat","table"))
summary(result)
diamonds %>% pre_factor(c("price","carat","table")) %>% summary
result <- pre_factor("computer","high_end:business")
summary(result)
```

---

summary.prob_binom	<i>Summary method for the probability calculator function</i>
--------------------	---

---

**Description**

Summary method for the probability calculator function

**Usage**

```
## S3 method for class 'prob_binom'
summary(object, type = "values", ...)
```

**Arguments**

object	Return value from <a href="#">prob_binom</a>
type	Probabilities or values
...	further arguments passed to or from other methods

**Details**

See [http://vnijs.github.io/radiant/quant/prob\\_calc.html](http://vnijs.github.io/radiant/quant/prob_calc.html) for an example in Radiant

---

summary.prob_chisq	<i>Summary method for the probability calculator function (Chi-squared distribution)</i>
--------------------	--

---

### Description

Summary method for the probability calculator function (Chi-squared distribution)

### Usage

```
## S3 method for class 'prob_chisq'
summary(object, type = "values", ...)
```

### Arguments

object	Return value from <a href="#">prob_chisq</a>
type	Probabilities or values
...	further arguments passed to or from other methods

### Details

See [http://vnijs.github.io/radiant/quant/prob\\_calc.html](http://vnijs.github.io/radiant/quant/prob_calc.html) for an example in Radiant

---

summary.prob_disc	<i>Summary method for the probability calculator function (discrete)</i>
-------------------	--

---

### Description

Summary method for the probability calculator function (discrete)

### Usage

```
## S3 method for class 'prob_disc'
summary(object, type = "values", ...)
```

### Arguments

object	Return value from <a href="#">prob_disc</a>
type	Probabilities or values
...	further arguments passed to or from other methods

### Details

See [http://vnijs.github.io/radiant/quant/prob\\_calc.html](http://vnijs.github.io/radiant/quant/prob_calc.html) for an example in Radiant



---

summary.prob_fdist	<i>Summary method for the probability calculator function (F-distribution)</i>
--------------------	--

---

### Description

Summary method for the probability calculator function (F-distribution)

### Usage

```
## S3 method for class 'prob_fdist'  
summary(object, type = "values", ...)
```

### Arguments

object	Return value from <a href="#">prob_fdist</a>
type	Probabilities or values
...	further arguments passed to or from other methods

### Details

See [http://vnijs.github.io/radiant/quant/prob\\_calc.html](http://vnijs.github.io/radiant/quant/prob_calc.html) for an example in Radiant

---

summary.prob_norm	<i>Summary method for the probability calculator function (normal)</i>
-------------------	--

---

### Description

Summary method for the probability calculator function (normal)

### Usage

```
## S3 method for class 'prob_norm'  
summary(object, type = "values", ...)
```

### Arguments

object	Return value from <a href="#">prob_norm</a>
type	Probabilities or values
...	further arguments passed to or from other methods

### Details

See [http://vnijs.github.io/radiant/quant/prob\\_calc.html](http://vnijs.github.io/radiant/quant/prob_calc.html) for an example in Radiant

---

summary.prob_tdist	<i>Summary method for the probability calculator function (t-distribution)</i>
--------------------	--

---

**Description**

Summary method for the probability calculator function (t-distribution)

**Usage**

```
## S3 method for class 'prob_tdist'
summary(object, type = "values", ...)
```

**Arguments**

object	Return value from <a href="#">prob_tdist</a>
type	Probabilities or values
...	further arguments passed to or from other methods

**Details**

See [http://vnijs.github.io/radiant/quant/prob\\_calc.html](http://vnijs.github.io/radiant/quant/prob_calc.html) for an example in Radiant

---

summary.prob_unif	<i>Summary method for the probability calculator function (uniform)</i>
-------------------	---

---

**Description**

Summary method for the probability calculator function (uniform)

**Usage**

```
## S3 method for class 'prob_unif'
summary(object, type = "values", ...)
```

**Arguments**

object	Return value from <a href="#">prob_unif</a>
type	Probabilities or values
...	further arguments passed to or from other methods

**Details**

See [http://vnijs.github.io/radiant/quant/prob\\_calc.html](http://vnijs.github.io/radiant/quant/prob_calc.html) for an example in Radiant

---

summary.regression	<i>Summary method for the regression function</i>
--------------------	---

---

## Description

Summary method for the regression function

## Usage

```
## S3 method for class 'regression'
summary(object, sum_check = "", conf_lev = 0.95,
        test_var = "", ...)
```

## Arguments

object	Return value from <a href="#">regression</a>
sum_check	Optional output or estimation parameters. "rmse" to show the root mean squared error. "sumsquares" to show the sum of squares table. "vif" to show multi-collinearity diagnostics. "confint" to show coefficient confidence interval estimates.
conf_lev	Confidence level used to estimate confidence intervals (.95 is the default)
test_var	Variables to evaluate in model comparison (i.e., a competing models F-test)
...	further arguments passed to or from other methods

## Details

See <http://vnijs.github.io/radiant/quant/regression.html> for an example in Radiant

## See Also

[regression](#) to generate the results  
[plot.regression](#) to plot results  
[predict.regression](#) to generate predictions

## Examples

```
result <- regression("diamonds", "price", c("carat","clarity"))
summary(result, sum_check = c("rmse","sumsquares","vif","confint"), test_var = "clarity")
result <- regression("shopping", "v1", c("v2","v3"))
summary(result, test_var = "v2")
shopping %>% regression("v1", "v2:v6") %>% summary
```

---

summary.repeater	<i>Summarize repeated simulation</i>
------------------	--------------------------------------

---

### Description

Summarize repeated simulation

### Usage

```
## S3 method for class 'repeater'
summary(object, sum_vars = "", byvar = "",
  fun = "sum_rm", form = "", name = "", dec = 4, ...)
```

### Arguments

object	Return value from <a href="#">repeater</a>
sum_vars	(Numerical) variables to summaries
byvar	Variable(s) to group data by before summarizing
fun	Functions to use for summarizing
form	A string with the formula to evaluate (e.g., "profit = demand * (price - cost)")
name	To save the simulated data for further analysis specify a name in the Sim name input box. You can then investigate the simulated data by choosing the specified name from the Datasets dropdown in any of the other Data tabs.
dec	Number of decimals to show
...	further arguments passed to or from other methods

---

summary.sample_size	<i>Summary method for the sample_size function</i>
---------------------	--

---

### Description

Summary method for the sample\_size function

### Usage

```
## S3 method for class 'sample_size'
summary(object, ...)
```

### Arguments

object	Return value from <a href="#">sample_size</a>
...	further arguments passed to or from other methods

### Details

See [http://vnijs.github.io/radiant/quant/sample\\_size](http://vnijs.github.io/radiant/quant/sample_size) for an example in Radiant

**See Also**

[sample\\_size](#) to generate the results

**Examples**

```
result <- sample_size(type = "mean", err_mean = 2, sd_mean = 10)
summary(result)
```

---

summary.sampling

*Summary method for the sampling function*

---

**Description**

Summary method for the sampling function

**Usage**

```
## S3 method for class 'sampling'
summary(object, print_sf = TRUE, ...)
```

**Arguments**

object	Return value from <a href="#">sampling</a>
print_sf	Print full sampling frame. Default is TRUE
...	further arguments passed to or from other methods

**Details**

See <http://vnijs.github.io/radiant/quant/sampling> for an example in Radiant

**See Also**

[sampling](#) to generate the results

**Examples**

```
set.seed(1234)
result <- sampling("rndnames", "Names", 10)
summary(result)
```

---

summary.simulater	<i>Summary method for the simulater function</i>
-------------------	--

---

### Description

Summary method for the simulater function

### Usage

```
## S3 method for class 'simulater'  
summary(object, dec = 4, ...)
```

### Arguments

object	Return value from <a href="#">simulater</a>
dec	Number of decimals to show
...	further arguments passed to or from other methods

### Details

See <http://vnijs.github.io/radiant/quant/simulater.html> for an example in Radiant

### See Also

[simulater](#) to generate the results  
[plot.simulater](#) to plot results

### Examples

```
result <- simulater(norm = "demand 2000 1000")  
summary(result)
```

---

summary.single_mean	<i>Summary method for the single_mean function</i>
---------------------	--

---

### Description

Summary method for the single\_mean function

### Usage

```
## S3 method for class 'single_mean'  
summary(object, ...)
```

### Arguments

object	Return value from <a href="#">single_mean</a>
...	further arguments passed to or from other methods

## Details

See [http://vnijs.github.io/radiant/quant/single\\_mean.html](http://vnijs.github.io/radiant/quant/single_mean.html) for an example in Radiant

## See Also

[single\\_mean](#) to generate the results

[plot.single\\_mean](#) to plot results

## Examples

```
result <- single_mean("diamonds", "price")
summary(result)
diamonds %>% single_mean("price") %>% summary
```

---

summary.single_prop	<i>Summary method for the single_prop function</i>
---------------------	--

---

## Description

Summary method for the single\_prop function

## Usage

```
## S3 method for class 'single_prop'
summary(object, ...)
```

## Arguments

object	Return value from <a href="#">single_prop</a>
...	further arguments passed to or from other methods

## Details

See [http://vnijs.github.io/radiant/quant/single\\_prop.html](http://vnijs.github.io/radiant/quant/single_prop.html) for an example in Radiant

## See Also

[single\\_prop](#) to generate the results

[plot.single\\_prop](#) to plot the results

## Examples

```
result <- single_prop("diamonds", "clarity", lev = "IF", comp_value = 0.05)
summary(result)
diamonds %>% single_prop("clarity", lev = "IF", comp_value = 0.05) %>% summary
```

---

sum_rm	<i>Sum with na.rm = TRUE</i>
--------	------------------------------

---

**Description**

Sum with na.rm = TRUE

**Usage**

```
sum_rm(x)
```

**Arguments**

x	Input variable
---	----------------

**Value**

Sum of input values

**Examples**

```
sum_rm(1:200)
```

---

superheroes	<i>Super heroes</i>
-------------	---------------------

---

**Description**

Super heroes

**Usage**

```
data(superheroes)
```

**Format**

A data frame with 7 rows and 4 variables

**Details**

List of super heroes from [http://stat545-ubc.github.io/bit001\\_dplyr-cheatsheet.html](http://stat545-ubc.github.io/bit001_dplyr-cheatsheet.html).  
The dataset is used to illustrate data merging / joining. Description provided in attr(superheroes,"description")



---

test_specs	<i>Add interaction terms to list of test variables if needed</i>
------------	--

---

**Description**

Add interaction terms to list of test variables if needed

**Usage**

```
test_specs(test_var, int_var)
```

**Arguments**

test_var	List of variables to use for testing for regression or glm_reg
int_var	Interaction terms specified

**Details**

See <http://vnijs.github.io/radiant/quant/regression.html> for an example in Radiant

**Value**

A vector of variables names to test

**Examples**

```
test_specs("a", c("a:b", "b:c"))
```

---

the_table	<i>Function to calculate the PW and IW table for conjoint</i>
-----------	---

---

**Description**

Function to calculate the PW and IW table for conjoint

**Usage**

```
the_table(model, dat, indep_var)
```

**Arguments**

model	Tidied model results (broom) output from <a href="#">conjoint</a> passed on by summary.conjoint
dat	Conjoint data
indep_var	Explanatory variables used in the conjoint regression

**Details**

See <http://vnijs.github.io/radiant/marketing/conjoint.html> for an example in Radiant

See Also

[conjoint](#) to generate results  
[summary.conjoint](#) to summarize results  
[plot.conjoint](#) to plot results

Examples

```
result <- conjoint(dataset = "mp3", dep_var = "Rating", indep_var = "Memory:Shape")
the_table(result$model, result$dat, result$indep_var)
```

---

titanic	<i>Survival data for the Titanic</i>
---------	--------------------------------------

---

Description

Survival data for the Titanic

Usage

```
data(titanic)
```

Format

A data frame with 1043 rows and 10 variables

Details

Survival data for the Titanic. Description provided in attr(titanic,"description")

---

titanic_pred	<i>Predict survival</i>
--------------	-------------------------

---

Description

Predict survival

Usage

```
data(titanic_pred)
```

Format

A data frame with 6 rows and 3 variables

Details

Prediction data.frame for glm\_reg based on the Titanic dataset

---

toothpaste	<i>Toothpaste attitudes</i>
------------	-----------------------------

---

**Description**

Toothpaste attitudes

**Usage**

```
data(toothpaste)
```

**Format**

A data frame with 60 rows and 10 variables

**Details**

Attitudinal data on toothpaste for 60 consumers. Description provided in `attr(toothpaste,"description")`

---

varp_rm	<i>Variance for the population na.rm = TRUE</i>
---------	---

---

**Description**

Variance for the population na.rm = TRUE

**Usage**

```
varp_rm(x)
```

**Arguments**

x	Input variable
---	----------------

**Value**

Variance for the population

**Examples**

```
varp_rm(rnorm(100))
```

---

var_check	<i>Check if main effects for all interaction effects are included in the model If ':' is used to select a range _indep_var_ is updated</i>
-----------	--

---

### Description

Check if main effects for all interaction effects are included in the model If ':' is used to select a range \_indep\_var\_ is updated

### Usage

```
var_check(iv, cn, intv = "")
```

### Arguments

iv	List of explanatory variables provided to _regression_ or _glm_
cn	Column names for all explanatory variables in _dat_
intv	Interaction terms specified

### Details

See <http://vnijs.github.io/radiant/quant/regression.html> for an example in Radiant

### Value

'vars' is a vector of right-hand side variables, possibly with interactions, 'iv' is the list of explanatory variables, and intv are interaction terms

### Examples

```
var_check("a:d", c("a", "b", "c", "d"))
var_check(c("a", "b"), c("a", "b"), "a:c")
```

---

var_rm	<i>Variance with na.rm = TRUE</i>
--------	-----------------------------------

---

### Description

Variance with na.rm = TRUE

### Usage

```
var_rm(x)
```

### Arguments

x	Input variable
---	----------------

### Value

Variance

**Examples**

```
var_rm(rnorm(100))
```

---

viewdata	<i>View data</i>
----------	------------------

---

**Description**

View data

**Usage**

```
viewdata(dataset, vars = "", filt = "", rows = NULL, na.rm = FALSE)
```

**Arguments**

dataset	Name of the dataframe to change
vars	Variables to show (default is all)
filt	Filter to apply to the specified dataset. For example "price > 10000" if dataset is "diamonds" (default is "")
rows	Select rows in the specified dataset. For example "1:10" for the first 10 rows or "n()-10:n()" for the last 10 rows (default is NULL)
na.rm	Remove rows with missing values (default is FALSE)

**Details**

View, search, sort, etc. your data

**Examples**

```
if (interactive()) {
  viewdata(mtcars)
  viewdata("mtcars")
  mtcars %>% viewdata
}
```

---

visualize	<i>Visualize data using ggplot2</i> <a href="http://docs.ggplot2.org/current/">http://docs.ggplot2.org/current/</a>
-----------	---

---

**Description**

Visualize data using ggplot2 <http://docs.ggplot2.org/current/>

**Usage**

```
visualize(dataset, xvar, yvar = "", comby = FALSE, combx = FALSE,
  type = "hist", facet_row = ".", facet_col = ".", color = "none",
  fill = "none", bins = 10, smooth = 1, sbar = "mean", check = "",
  axes = "", alpha = 0.5, data_filter = "", shiny = FALSE,
  custom = FALSE)
```

**Arguments**

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an <code>r_data</code> list from Radiant
xvar	One or more variables to display along the X-axis of the plot
yvar	Variable to display along the Y-axis of the plot (default = "none")
comby	Combine yvars in plot (TRUE or FALSE, FALSE is the default)
combx	Combine xvars in plot (TRUE or FALSE, FALSE is the default)
type	Type of plot to create. One of Histogram ('hist'), Density ('density'), Scatter ('scatter'), Line ('line'), Bar ('bar'), or Box-plot ('box')
facet_row	Create vertically arranged subplots for each level of the selected factor variable
facet_col	Create horizontally arranged subplots for each level of the selected factor variable
color	Adds color to a scatter plot to generate a heat map. For a line plot one line is created for each group and each is assigned a different color
fill	Group bar, histogram, and density plots by group, each with a different color
bins	Number of bins used for a histogram (1 - 50)
smooth	Adjust the flexibility of the loess line for scatter plots
sbar	Plot an error bar in a scatter plot where the xvar is a factor. Options are "mean" and/or "median". Default is "mean"
check	Add a regression line ("line"), a loess line ("loess"), or jitter ("jitter") to a scatter plot
axes	Flip the axes in a plot ("flip") or apply a log transformation (base e) to the y-axis ("log_y") or the x-axis ("log_x")
alpha	Opacity for plot elements (0 to 1)
data_filter	Expression used to filter the dataset. This should be a string (e.g., "price > 10000")
shiny	Logical (TRUE, FALSE) to indicate if the function call originate inside a shiny app
custom	Logical (TRUE, FALSE) to indicate if ggplot object (or list of ggplot objects) should be returned. This option can be used to customize plots (e.g., add a title, change x and y labels, etc.). See examples and <a href="http://docs.ggplot2.org/">http://docs.ggplot2.org/</a> for options.

**Details**

See <http://vnijs.github.io/radiant/base/visualize.html> for an example in Radiant

**Value**

Generated plots

**Examples**

```
visualize("diamonds", "carat", "price", type = "scatter", check = "loess")
visualize("diamonds", "price:x", type = "hist")
visualize("diamonds", "carat:x", yvar = "price", type = "scatter")
visualize(dataset = "diamonds", yvar = "price", xvar = "carat", type = "scatter", custom = TRUE) +
```

```
ggtitle("A scatterplot") + xlab("price in $")
visualize(dataset = "diamonds", xvar = "price:carat", custom = TRUE) %>%
  {.[[1]] + ggtitle("A histogram") + xlab("price in $")}
diamonds %>% visualize(c("price", "carat", "depth"), type = "density")
```

win\_launcher

*Create a launcher and updater for Windows (.bat)***Description**

Create a launcher and updater for Windows (.bat)

**Usage**

```
win_launcher(app = c("analytics", "marketing", "quant", "base"))
```

**Arguments**

app                      App to run when the desktop icon is double-clicked ("analytics", "marketing", "quant", or "base"). Default is "analytics"

**Details**

On Windows a file named 'radiant.bat' and one named 'update\_radiant.bat' will be put on the desktop. Double-click the file to launch the specified Radiant app or update Radiant to the latest version

**Examples**

```
if (interactive()) {
  if (Sys.info()["sysname"] == "Windows") {
    win_launcher()
    fn <- paste0(Sys.getenv("USERPROFILE"), "/Desktop/radiant.bat")
    if (!file.exists(fn))
      stop("Windows launcher not created")
    else
      unlink(fn)
  }
}
```

# Index

## \*Topic **datasets**

avengers, [14](#)  
city, [16](#)  
computer, [21](#)  
diamonds, [27](#)  
mp3, [52](#)  
newspaper, [53](#)  
publishers, [86](#)  
rndnames, [88](#)  
shopping, [94](#)  
superheroes, [128](#)  
titanic, [130](#)  
titanic\_pred, [130](#)  
toothpaste, [131](#)

as\_character, [6](#)  
as\_distance, [6](#)  
as\_dmy, [7](#)  
as\_dmy\_hm, [7](#)  
as\_dmy\_hms, [8](#)  
as\_duration, [8](#)  
as\_factor, [9](#)  
as\_hm, [9](#)  
as\_hms, [10](#)  
as\_integer, [10](#)  
as\_mdy, [11](#)  
as\_mdy\_hm, [11](#)  
as\_mdy\_hms, [12](#)  
as\_numeric, [12](#)  
as\_ymd, [13](#)  
as\_ymd\_hm, [13](#)  
as\_ymd\_hms, [14](#)  
avengers, [14](#)

center, [15](#)  
changedata, [15](#)  
ci\_label, [16](#)  
ci\_perc, [17](#)  
city, [16](#)  
clean\_loadings, [17](#)  
combinedata, [18](#)  
compare\_means, [19](#), [57](#), [107](#)  
compare\_props, [20](#), [58](#), [108](#)  
computer, [21](#)

conjoint, [21](#), [59](#), [108](#), [109](#), [129](#), [130](#)  
conjoint\_profiles, [22](#), [30](#), [109](#)  
copy\_all, [23](#)  
copy\_from, [23](#), [103–105](#)  
copy\_imported, [24](#)  
correlation, [24](#), [59](#), [110](#)  
cross\_tabs, [25](#), [60](#), [111](#)  
cv, [26](#)

decile\_split, [26](#)  
diamonds, [27](#)  
does\_vary, [27](#)  
dtree, [28](#), [29](#), [61](#), [111](#)  
dtree\_parser, [28](#)

explore, [29](#), [32](#), [46](#), [112](#)

factorizer, [30](#)  
ff\_design, [30](#)  
filterdata, [31](#)  
find\_max, [31](#)  
find\_min, [32](#)  
flip, [32](#)  
full\_factor, [33](#), [61](#), [62](#), [90](#), [113](#)

getclass, [34](#)  
getdata, [34](#)  
getsummary, [35](#)  
glm\_reg, [35](#), [63](#), [64](#), [79](#), [106](#), [113](#), [114](#)  
goodness, [36](#), [64](#), [114](#)

hier\_clus, [37](#), [65](#), [115](#)

inverse, [38](#)  
is\_empty, [38](#)  
is\_string, [39](#)  
iterms, [40](#)

kmeans\_clus, [40](#), [66](#), [91](#), [116](#)  
kurtosi, [41](#)

launcher, [41](#)  
lin\_launcher, [41](#), [42](#)  
ln, [42](#)  
loadcsv, [43](#)



- loadcsv\_url, 43
- loadrda, 44
- loadrda\_url, 44
- mac\_launcher, 41, 45
- make\_dt, 45
- make\_expl, 32, 46
- make\_funs, 47
- make\_train, 47
- max\_rm, 48
- mds, 48, 67, 116
- mean\_rm, 49
- median\_rm, 50
- median\_split, 50
- min\_rm, 51
- mode\_rm, 51
- mp3, 52
- mutate\_each, 52
- n\_missing, 54
- newspaper, 53
- normalize, 53
- p05, 54
- p25, 55
- p75, 55
- p95, 56
- pivotr, 46, 47, 56, 67, 68, 117
- plot.compare\_means, 20, 57, 107
- plot.compare\_props, 20, 58, 108
- plot.conjoint, 22, 58, 109, 130
- plot.correlation\_, 25, 59, 110
- plot.cross\_tabs, 25, 60, 111
- plot.dtree, 28, 29, 61, 111
- plot.full\_factor, 33, 61, 62, 113
- plot.glm\_predict, 36, 62, 64, 79, 114
- plot.glm\_reg, 36, 63, 63, 64, 79, 114
- plot.goodness, 37, 64, 114
- plot.hier\_clus, 38, 65, 65, 115
- plot.kmeans\_clus, 41, 66, 91, 116
- plot.mds, 49, 66, 116
- plot.pivotr, 67
- plot.pmap, 68, 78, 118
- plot.pre\_factor, 69, 81, 119
- plot.prob\_binom, 69
- plot.prob\_chisq, 70
- plot.prob\_disc, 70
- plot.prob\_fdist, 71
- plot.prob\_norm, 71
- plot.prob\_tdist, 72
- plot.prob\_unif, 72
- plot.reg\_predict, 74
- plot.regression, 73, 74, 80, 87, 123
- plot.repeater, 75
- plot.simulator, 75, 97, 126
- plot.single\_mean, 76, 99, 127
- plot.single\_prop, 77, 100, 127
- pmap, 68, 78, 118
- pre\_factor, 69, 81, 119
- predict.glm\_reg, 36, 62–64, 79, 106, 114
- predict.regression, 73, 74, 80, 87, 106, 123
- print.gtable, 81
- prob\_binom, 69, 82, 119
- prob\_chisq, 70, 83, 120
- prob\_disc, 70, 83, 120
- prob\_fdist, 71, 84, 121
- prob\_norm, 71, 84, 121
- prob\_tdist, 72, 85, 122
- prob\_unif, 72, 85, 122
- publishers, 86
- radiant, 86
- radiant-package (radiant), 86
- recode, 87
- regression, 73, 74, 80, 87, 106, 123
- repeater, 75, 88, 124
- rndnames, 88
- sample\_size, 89, 124, 125
- sampling, 90, 125
- save\_factors, 90
- save\_membership, 41, 66, 91, 116
- sd\_rm, 93
- sdp\_rm, 92
- sdw, 92
- serr, 93
- set\_class, 94
- shopping, 94
- show\_duplicated, 94
- sig\_stars, 95
- sim\_cleaner, 97
- sim\_splitter, 98
- sim\_summary, 98
- simulator, 76, 96, 111, 126
- single\_mean, 76, 77, 99, 126, 127
- single\_prop, 77, 100, 127
- skew, 100
- square, 101
- sshh, 101
- ssshr, 102
- standardize, 102
- state\_init, 103, 104, 105
- state\_multiple, 103, 104, 105
- state\_single, 103, 104, 105
- store\_glm, 106
- store\_reg, 106

sum\_rm, [128](#)  
summary.compare\_means, [20](#), [57](#), [107](#)  
summary.compare\_props, [20](#), [58](#), [108](#)  
summary.conjoint, [22](#), [59](#), [108](#), [130](#)  
summary.conjoint\_profiles, [22](#), [30](#), [109](#)  
summary.correlation\_, [25](#), [59](#), [110](#)  
summary.cross\_tabs, [25](#), [60](#), [110](#)  
summary.dtree, [28](#), [29](#), [61](#), [111](#)  
summary.explore, [29](#), [112](#)  
summary.full\_factor, [33](#), [112](#)  
summary.glm\_reg, [36](#), [63](#), [79](#), [113](#)  
summary.goodness, [37](#), [64](#), [114](#)  
summary.hier\_clus, [38](#), [65](#), [115](#), [115](#)  
summary.kmeans\_clus, [41](#), [66](#), [91](#), [115](#)  
summary.mds, [49](#), [67](#), [116](#)  
summary.pivotr, [46](#), [47](#), [68](#), [117](#)  
summary.pmap, [68](#), [78](#), [118](#)  
summary.pre\_factor, [69](#), [81](#), [118](#)  
summary.prob\_binom, [119](#)  
summary.prob\_chisq, [120](#)  
summary.prob\_disc, [120](#)  
summary.prob\_fdist, [121](#)  
summary.prob\_norm, [121](#)  
summary.prob\_tdist, [122](#)  
summary.prob\_unif, [122](#)  
summary.regression, [73](#), [74](#), [80](#), [87](#), [123](#)  
summary.repeater, [124](#)  
summary.sample\_size, [89](#), [124](#)  
summary.sampling, [90](#), [125](#)  
summary.simulator, [97](#), [126](#)  
summary.single\_mean, [76](#), [77](#), [99](#), [126](#)  
summary.single\_prop, [77](#), [100](#), [127](#)  
superheroes, [128](#)  
  
test\_specs, [129](#)  
the\_table, [129](#)  
titanic, [130](#)  
titanic\_pred, [130](#)  
toothpaste, [131](#)  
  
var\_check, [132](#)  
var\_rm, [132](#)  
varp\_rm, [131](#)  
viewdata, [133](#)  
visualize, [133](#)  
  
win\_launcher, [41](#), [135](#)