

# Package ‘radiant.multivariate’

September 21, 2016

**Type** Package

**Title** Multivariate Menu for Radiant: Business Analytics using R and Shiny

**Version** 0.6.0

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## Description

The Radiant Multivariate menu includes interfaces for perceptual mapping, factor analysis, cluster analysis, and conjoint analysis. The application extends the functionality in radiant.data.

**Depends** R (>= 3.3.0),  
radiant.data (>= 0.6)

**Imports** shiny (>= 0.14),  
dplyr (>= 0.5),  
ggplot2 (>= 2.0.0),  
gridExtra (>= 2.0.0),  
scales (>= 0.4.0),  
magrittr (>= 1.5),  
psych (>= 1.5.8),  
car (>= 2.1.1),  
MASS (>= 7.3),  
wordcloud (>= 2.5),  
import (>= 1.1.0),  
methods

**Suggests** testthat (>= 1.0.0),  
covr (>= 1.2.0)

**URL** <https://github.com/radiant-rstats/radiant.multivariate>, <https://radiant-rstats.github.io/docs>

**BugReports** <https://github.com/radiant-rstats/radiant.multivariate/issues>

**License** AGPL-3 | file LICENSE

**LazyData** true

**RoxygenNote** 5.0.1

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---

carpet

*Carpet cleaners*


---

## Description

Carpet cleaners

## Usage

data(carpet)

## Format

A data frame with 18 rows and 5 variables

**Details**

Rankings reflect the evaluation of 18 alternative carpet cleaners by one respondent. Description provided in `attr(carpet,"description")`

---

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")`

---

city2	<i>City distances 2</i>
-------	-------------------------

---

**Description**

City distances 2

**Usage**

```
data(city2)
```

**Format**

A data frame with 78 rows and 3 variables

**Details**

Distance in miles between 12 cities in the USA. The dataset is used to illustrate multi-dimensional scaling (MDS). Description provided in `attr(city2,"description")`

---

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

**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 [https://radiant-rstats.github.io/docs/multivariate/full\\_factor.html](https://radiant-rstats.github.io/docs/multivariate/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)
```

---

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>
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---

**Description**

Conjoint analysis

**Usage**

```
conjoint(dataset, rvar, evar, 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
rvar	The response variable (e.g., profile ratings)
evar	Explanatory variables in the regression
reverse	Reverse the values of the response variable ('rvar')
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 <https://radiant-rstats.github.io/docs/multivariate/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", rvar = "Rating", evar = "Memory:Shape")
result <- mp3 %>% conjoint(rvar = "Rating", evar = "Memory:Shape")
```

---

full_factor	<i>Factor analysis (PCA)</i>
-------------	------------------------------

---

## Description

Factor analysis (PCA)

## Usage

```
full_factor(dataset, vars, method = "PCA", nr_fact = 1,
  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 [https://radiant-rstats.github.io/docs/multivariate/full\\_factor.html](https://radiant-rstats.github.io/docs/multivariate/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")
```

---

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

---

## Description

Hierarchical cluster analysis

## Usage

```
hier_clus(dataset, vars, distance = "sq.euclidian", method = "ward.D",  
          max_cases = 1000, 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
max_cases	Maximum number of cases allowed (default is 1000)
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 [https://radiant-rstats.github.io/docs/multivariate/hier\\_clus.html](https://radiant-rstats.github.io/docs/multivariate/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 = "v1:v6")
```

---

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 <code>hier_clus</code> as the starting point
distance	Distance for <code>hier_clus</code>
method	Method for <code>hier_clus</code>
seed	Random see to use for <code>kmeans</code> if <code>hc_init</code> 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 [https://radiant-rstats.github.io/docs/multivariate/kmeans\\_clus.html](https://radiant-rstats.github.io/docs/multivariate/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

[store.kmeans\\_clus](#) to add cluster membership to the selected dataset

## Examples

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



---

mds	(Dis)similarity based brand maps (MDS)
-----	--

---

## Description

(Dis)similarity based brand maps (MDS)

## Usage

```
mds(dataset, id1, id2, dis, method = "metric", nr_dim = 2, seed = 1234,  
      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
seed	Random seed
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 <https://radiant-rstats.github.io/docs/multivariate/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)
```

---

movie	<i>Conjoint data for Movie theaters</i>
-------	---

---

**Description**

Conjoint data for Movie theaters

**Usage**

```
data(movie)
```

**Format**

A data frame with 18 rows and 6 variables

**Details**

Rankings reflect the evaluation of 18 alternative movie theaters by one respondent. Description provided in `attr(movie,"description")`

---

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**

Ratings reflect the evaluation of 18 alternative MP3 players by one respondent. Description provided in `attr(mp3,"description")`

---

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 <https://radiant-rstats.github.io/docs/multivariate/conjoint.html> for an example in Radiant

### See Also

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

### Examples

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

---

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 <code>full_factor</code>
shiny	Did the function call originate inside a shiny app
...	further arguments passed to or from other methods

**Details**

See [https://radiant-rstats.github.io/docs/multivariate/full\\_factor.html](https://radiant-rstats.github.io/docs/multivariate/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.hier_clus	<i>Plot method for the hier_clus function</i>
----------------	---

---

**Description**

Plot method for the hier\_clus function

**Usage**

```
## S3 method for class 'hier_clus'
plot(x, plots = c("scree", "change"), cutoff = 0.05,
     shiny = FALSE, ...)
```

**Arguments**

x	Return value from <code>hier_clus</code>
plots	Plots to return. "change" shows the percentage change in within-cluster heterogeneity as respondents are grouped 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 hierarchical 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 [https://radiant-rstats.github.io/docs/multivariate/hier\\_clus.html](https://radiant-rstats.github.io/docs/multivariate/hier_clus.html) for an example in Radiant

**See Also**

[hier\\_clus](#) to generate results

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

**Examples**

```
result <- hier_clus("shopping", vars = c("v1:v6"))
plot(result, plots = c("change", "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, plots = "density", shiny = FALSE, ...)
```

**Arguments**

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

**Details**

See [https://radiant-rstats.github.io/docs/multivariate/kmeans\\_clus.html](https://radiant-rstats.github.io/docs/multivariate/kmeans_clus.html) for an example in Radiant

**See Also**

[kmeans\\_clus](#) to generate results

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

[store.kmeans\\_clus](#) to add cluster membership to the selected dataset

**Examples**

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

plot.mds

*Plot method for the mds function***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 <https://radiant-rstats.github.io/docs/multivariate/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.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

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

## Details

See <https://radiant-rstats.github.io/docs/multivariate/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, plots = c("scree", "change"), cutoff = 0.2,
     shiny = FALSE, ...)
```

## Arguments

x	Return value from <a href="#">pre_factor</a>
plots	Plots to return. "change" shows the change in eigenvalues as variables are grouped into different number of factors, "scree" shows a scree plot of eigenvalues
cutoff	For large datasets plots can take time to render and become hard to interpret. By selection a cutoff point (e.g., eigenvalues of .8 or higher) factors with the least explanatory power 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 [https://radiant-rstats.github.io/docs/multivariate/pre\\_factor.html](https://radiant-rstats.github.io/docs/multivariate/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(result, plots = c("change", "scree"), cutoff = .05)
```



---

pmap

*Attribute based brand maps*

---

## 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 <https://radiant-rstats.github.io/docs/multivariate/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")
```

---

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 [https://radiant-rstats.github.io/docs/multivariate/pre\\_factor.html](https://radiant-rstats.github.io/docs/multivariate/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"))
```

---

radiant.multivariate	<i>radiant.multivariate</i>
----------------------	-----------------------------

---

**Description**

radiant.multivariate

Launch Radiant in the default browser

**Usage**

```
radiant.multivariate()
```

**Details**

See <https://radiant-rstats.github.io/docs> for documentation and tutorials

---

`radiant.multivariate-deprecated`

*Deprecated function(s) in the `radiant.multivariate` package*

---

**Description**

These functions are provided for compatibility with previous versions of `radiant`. They will eventually be removed.

**Usage**

```
save_factors(...)
```

**Arguments**

... Parameters to be passed to the updated functions

**Details**

`save_factors` is now a synonym for `store.full_factor`  
`save_membership` is now a synonym for `store.kmeans_clus`

---

`retailers`

*Perceptions of retailers*

---

**Description**

Perceptions of retailers

**Usage**

```
data(retailers)
```

**Format**

A data frame with 6 rows and 10 variables

**Details**

Consumer evaluations for a set of retailers in the Chicago area on 7 attributes. The dataset is used to illustrate perceptual maps. Description provided in `attr(retailers, "description")`

---

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")

---

store.full_factor	<i>Store factor scores to active dataset</i>
-------------------	--

---

**Description**

Store factor scores to active dataset

**Usage**

```
## S3 method for class 'full_factor'
store(object, ..., name = "")
```

**Arguments**

object	Return value from <a href="#">full_factor</a>
...	Additional arguments
name	Name of factor score variables

**Details**

See [https://radiant-rstats.github.io/docs/multivariate/full\\_factor.html](https://radiant-rstats.github.io/docs/multivariate/full_factor.html) for an example in Radiant

**See Also**

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

**Examples**

```
full_factor(shopping, "v1:v6", nr_fact = 3) %>%
  store %>%
  head
```

---

store.kmeans_clus	<i>Add a cluster membership variable to the active dataset</i>
-------------------	--

---

**Description**

Add a cluster membership variable to the active dataset

**Usage**

```
## S3 method for class 'kmeans_clus'
store(object, ..., name = "")
```

**Arguments**

object	Return value from <a href="#">kmeans_clus</a>
...	Additional arguments
name	Name of cluster membership variable

**Details**

See [https://radiant-rstats.github.io/docs/multivariate/kmeans\\_clus.html](https://radiant-rstats.github.io/docs/multivariate/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**

```
kmeans_clus(shopping, vars = c("v1:v6")) %>% store %>% head
```

---

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

---

### Description

Summary method for the conjoint function

### Usage

```
## S3 method for class 'conjoint'
summary(object, mc_diag = FALSE, dec = 3, ...)
```

### Arguments

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

### Details

See <https://radiant-rstats.github.io/docs/multivariate/conjoint.html> for an example in Radiant

### See Also

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

### Examples

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

---

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, dec = 2,
  ...)
```

**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
dec	Number of decimals to show
...	further arguments passed to or from other methods

**Details**

See [https://radiant-rstats.github.io/docs/multivariate/full\\_factor.html](https://radiant-rstats.github.io/docs/multivariate/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.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 [https://radiant-rstats.github.io/docs/multivariate/hier\\_clus.html](https://radiant-rstats.github.io/docs/multivariate/hier_clus.html) for an example in Radiant

**See Also**

[hier\\_clus](#) to generate 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, dec = 2, ...)
```

**Arguments**

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

**Details**

See [https://radiant-rstats.github.io/docs/multivariate/kmeans\\_clus.html](https://radiant-rstats.github.io/docs/multivariate/kmeans_clus.html) for an example in Radiant

**See Also**

[kmeans\\_clus](#) to generate results  
[plot.kmeans\\_clus](#) to plot results  
[store.kmeans\\_clus](#) 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 = 2, ...)
```

**Arguments**

object	Return value from <a href="#">mds</a>
dec	Rounding to use for output (default = 2). +1 used for stress measure
...	further arguments passed to or from other methods

**Details**

See <https://radiant-rstats.github.io/docs/multivariate/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.pmap*Summary method for the pmap function*

---

**Description**

Summary method for the pmap function

**Usage**

```
## S3 method for class 'pmap'  
summary(object, cutoff = 0, dec = 2, ...)
```

**Arguments**

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

**Details**

See <https://radiant-rstats.github.io/docs/multivariate/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	<i>Summary method for the pre_factor function</i>
--------------------	---

---

**Description**

Summary method for the pre\_factor function

**Usage**

```
## S3 method for class 'pre_factor'
summary(object, dec = 2, ...)
```

**Arguments**

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

**Details**

See [https://radiant-rstats.github.io/docs/multivariate/pre\\_factor.html](https://radiant-rstats.github.io/docs/multivariate/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)
```

---

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, evar)
```

**Arguments**

model	Tidied model results (broom) output from <a href="#">conjoint</a> passed on by summary.conjoint
dat	Conjoint data
evar	Explanatory variables used in the conjoint regression

**Details**

See <https://radiant-rstats.github.io/docs/multivariate/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", rvar = "Rating", evar = "Memory:Shape")
the_table(result$model, result$dat, result$evar)
```

---

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")`

---

tpbrands	<i>Toothpaste brands</i>
----------	--------------------------

---

**Description**

Toothpaste brands

**Usage**

```
data(tpbrands)
```

**Format**

A data frame with 45 rows and 4 variables

**Details**

Perceived (dis)similarity of a set of toothpaste brands. The dataset is used to illustrate multi-dimensional scaling (MDS). Description provided in `attr(tpbrands,"description")`

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