

# Package ‘tableExtra’

March 23, 2021

**Title** Draws an awesome table

**Version** 0.99.4

**Description** Draws an awesome table.

**License** Apache License (>= 2.0)

**Encoding** UTF-8

**LazyData** true

**Roxygen** list(markdown = TRUE)

**RoxygenNote** 7.1.1

**Suggests** testthat,  
dplyr,  
tibble

**Depends** R (>= 3.5.0)

**Imports** gtable,  
grid

## R topics documented:

gtable_rbind . . . . .	1
pcawg_counts . . . . .	2
table_extra_grob . . . . .	6
tableExtra . . . . .	7
ttheme_awesome . . . . .	7

<b>Index</b>	<b>9</b>
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gtable_rbind	<i>rbind two or more gtables</i>
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## Description

rbind two or more gtables

cbind two or more gtables

**Usage**

```
gtable_rbind(..., size = "max", height = NULL, z = NULL)
```

```
gtable_cbind(..., size = "max", width = NULL, z = NULL)
```

**Arguments**

...	gtables
size	how should the widths be calculated? <ol style="list-style-type: none"> <li>1. max maximum of all widths</li> <li>2. min minimum of all widths</li> <li>3. first widths/heights of first gtable</li> <li>4. last widths/heights of last gtable</li> </ol>
height	padding height between grobs
z	optional z level
width	padding width between grobs

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pcawg_counts	<i>Mutation counts attributed to each mutational signature in each tumour.</i>
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**Description**

Data from the mutational signature analysis of Alexandrov et al. on the PCAWG data. The data is available as supplementary data to the paper "The repertoire of mutational signatures in human cancer" on the Synapse data repository syn11738669

**Usage**

```
data(pcawg_counts)
```

**Format**

A data frame with 2780 rows and 68 variables

**Cancer.Types** 37 different cancer types

**Sample.Names** Unique tumour identifiers

**Accuracy** Cosine similarity between the tumour's mutational profile and the reconstructed mutational profile

**SBS1** Single-base-substitution signature 1. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS1.tt>

**SBS10a** Single-base-substitution signature 10a. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS10a.tt>

**SBS10b** Single-base-substitution signature 10b. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS10b.tt>

**SBS11** Single-base-substitution signature 11. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS11.tt>

- SBS12** Single-base-substitution signature 12. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS12.tt>
- SBS13** Single-base-substitution signature 13. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS13.tt>
- SBS14** Single-base-substitution signature 14. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS14.tt>
- SBS15** Single-base-substitution signature 15. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS15.tt>
- SBS16** Single-base-substitution signature 16. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS16.tt>
- SBS17a** Single-base-substitution signature 17a. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS17a.tt>
- SBS17b** Single-base-substitution signature 17b. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS17b.tt>
- SBS18** Single-base-substitution signature 18. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS18.tt>
- SBS19** Single-base-substitution signature 19. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS19.tt>
- SBS20** Single-base-substitution signature 20. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS20.tt>
- SBS2** Single-base-substitution signature 2. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS2.tt>
- SBS21** Single-base-substitution signature 21. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS21.tt>
- SBS22** Single-base-substitution signature 22. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS22.tt>
- SBS23** Single-base-substitution signature 23. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS23.tt>
- SBS24** Single-base-substitution signature 24. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS24.tt>
- SBS25** Single-base-substitution signature 25. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS25.tt>
- SBS26** Single-base-substitution signature 26. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS26.tt>
- SBS27** Single-base-substitution signature 27. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS27.tt>
- SBS28** Single-base-substitution signature 28. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS28.tt>
- SBS29** Single-base-substitution signature 29. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS29.tt>
- SBS30** Single-base-substitution signature 30. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS30.tt>
- SBS3** Single-base-substitution signature 3. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS3.tt>
- SBS31** Single-base-substitution signature 31. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS31.tt>

- SBS32** Single-base-substitution signature 32. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS32.tt>
- SBS33** Single-base-substitution signature 33. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS33.tt>
- SBS34** Single-base-substitution signature 34. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS34.tt>
- SBS35** Single-base-substitution signature 35. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS35.tt>
- SBS36** Single-base-substitution signature 36. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS36.tt>
- SBS37** Single-base-substitution signature 37. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS37.tt>
- SBS38** Single-base-substitution signature 38. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS38.tt>
- SBS39** Single-base-substitution signature 39. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS39.tt>
- SBS40** Single-base-substitution signature 40. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS40.tt>
- SBS4** Single-base-substitution signature 4. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS4.tt>
- SBS41** Single-base-substitution signature 41. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS41.tt>
- SBS42** Single-base-substitution signature 42. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS42.tt>
- SBS43** Single-base-substitution signature 43. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS43.tt>
- SBS44** Single-base-substitution signature 44. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS44.tt>
- SBS45** Single-base-substitution signature 45. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS45.tt>
- SBS46** Single-base-substitution signature 46. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS46.tt>
- SBS47** Single-base-substitution signature 47. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS47.tt>
- SBS48** Single-base-substitution signature 48. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS48.tt>
- SBS49** Single-base-substitution signature 49. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS49.tt>
- SBS5** Single-base-substitution signature 5. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS5.tt>
- SBS50** Single-base-substitution signature 50. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS50.tt>
- SBS51** Single-base-substitution signature 51. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS51.tt>
- SBS52** Single-base-substitution signature 52. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS52.tt>

- SBS53** Single-base-substitution signature 53. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS53.tt>
- SBS54** Single-base-substitution signature 54. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS54.tt>
- SBS55** Single-base-substitution signature 55. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS55.tt>
- SBS56** Single-base-substitution signature 56. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS56.tt>
- SBS57** Single-base-substitution signature 57. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS57.tt>
- SBS58** Single-base-substitution signature 58. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS58.tt>
- SBS59** Single-base-substitution signature 59. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS59.tt>
- SBS6** Single-base-substitution signature 6. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS6.tt>
- SBS60** Single-base-substitution signature 60. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS60.tt>
- SBS7a** Single-base-substitution signature 7a. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS7a.tt>
- SBS7b** Single-base-substitution signature 7b. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS7b.tt>
- SBS7c** Single-base-substitution signature 7c. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS7c.tt>
- SBS7d** Single-base-substitution signature 7d. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS7d.tt>
- SBS8** Single-base-substitution signature 8. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS8.tt>
- SBS9** Single-base-substitution signature 9. See <https://cancer.sanger.ac.uk/cosmic/signatures/SBS/SBS9.tt>

## Details

pcawg\_counts contains the mutation counts as attributed by the SigProfiler algorithm on the Single-Base-Substitution (SBSs) mutation catalogs of 2780 WGS tumours from the PCAWG.

## Source

Synapse collaborative compute space, <https://www.synapse.org/#!Synapse:syn11804065>

## References

Alexandrov, L.B., Kim, J., Haradhvala, N.J. et al. The repertoire of mutational signatures in human cancer. *Nature* 578, 94–101 (2020). <https://doi.org/10.1038/s41586-020-1943-3>

## Examples

```
data(pcawg_counts)
```

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table_extra_grob	<i>Graphical display of a table with circles of varying scales and colours. The code is inspired by the tableGrob function gridExtra</i>
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## Description

Create a gtable containing circle grobs representing a numeric matrix.

## Usage

```
table_extra_grob(
  dscale,
  dcolor = NULL,
  dscale_min = NULL,
  dscale_max = NULL,
  rows = rownames(dscale),
  cols = colnames(dscale),
  rows_more = NULL,
  cols_more = NULL,
  theme = ttheme_awesome(),
  vp = NULL
)
```

## Arguments

dscale	a matrix
dcolor	(optional) a matrix
dscale_min	value for setting the minimum scale size of foreground grobs. Entries in the dscale matrix below dscale_min will have a scale of 0 (no grob).
dscale_max	value for setting the maximum scale size of foreground grobs. Entries in the dscale matrix above dscale_max will have a scale of 0 (no grob).
rows	(optional) a character vector
cols	(optional) a character vector
rows_more	(optional) a named list of additional columns (right-part) of the plot for describing the rows. The list names will be used as column headers.
cols_more	(optional) a named list of additional rows (top-part) of the plot for describing the columns. The list names will be used as row headers.
theme	list of theme parameters
vp	optional viewport

## Value

An R object of class grob

## Author(s)

Yoann Pradat

**See Also**[ttheme\\_awesome\(\)](#)**Examples**

```
library(tableExtra)
```

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tableExtra	<i>tableExtra: A package for awesome tables</i>
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**Description**

'tableExtra' provides a function to draw a table with grobs of varying size and colors to represent two different types of information about multiple variables in multiple samples. The package was originally developed to reproduce Figure 3 of Alexandrov, L.B., Kim, J., Haradhvala, N.J. et al. The repertoire of mutational signatures in human cancer. Nature 578, 94–101 (2020). <https://doi.org/10.1038/s41586-020-1943-3>

**Author(s)**

Yoann Pradat

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ttheme_awesome	<i>Define theme for awesome table plot.</i>
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**Description**

Define theme for awesome table plot.

**Usage**

```
ttheme_awesome(  
  base_size = 8,  
  base_colour = "black",  
  base_family = "",  
  core_size = unit(10, "mm"),  
  scale_breaks = 10,  
  scale_ratio = 0.25,  
  color_palette = "black",  
  color_breaks = NULL,  
  rep_mode = "col",  
  parse = FALSE,  
  padding = unit(c(0.3, 0.3), "mm"),  
  ...  
)
```

**Arguments**

<code>base_size</code>	default font size
<code>base_colour</code>	default font colour
<code>base_family</code>	default font family
<code>core_size</code>	cell size for core background grobs
<code>scale_breaks</code>	number of size categories for core foreground grobs or numeric vector of bin breaks
<code>scale_ratio</code>	ratio of minimum to maximum core foreground grobs sizes
<code>color_palette</code>	color palette for core foreground grobs
<code>color_breaks</code>	bin breaks for color palette for core foreground grobs
<code>rep_mode</code>	'col' or 'row'. Used when recycling <code>fg_params</code> or <code>bg_params</code> to make a matrix of params.
<code>parse</code>	logical, default behaviour for parsing text as plotmath
<code>padding</code>	length-2 unit vector specifying the horizontal and vertical padding of text within each cell
<code>...</code>	extra parameters added to the theme list

**Author(s)**

Yoann Pradat



# Index

## \*Topic **datasets**

pcawg\_counts, [2](#)

gtable\_cbind (gtable\_rbind), [1](#)

gtable\_rbind, [1](#)

pcawg\_counts, [2](#)

table\_extra\_grob, [6](#)

tableExtra, [7](#)

ttheme\_awesome, [7](#)

ttheme\_awesome(), [7](#)