

# Package: pharmaRTF (via r-universe)

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**Type** Package

**Title** Enhanced RTF Wrapper for Use with Existing Table Packages

**Version** 0.1.4

**Description** Enhanced RTF wrapper written in R for use with existing R tables packages such as 'Hxtable' or 'GT'. This package fills a gap where tables in certain packages can be written out to RTF, but cannot add certain metadata or features to the document that are required/expected in a report for a regulatory submission, such as multiple levels of titles and footnotes, making the document landscape, and controlling properties such as margins.

**Depends** R (>= 3.5.0)

**License** MIT + file LICENSE

**BugReports** <https://github.com/atorus-research/pharmaRTF/issues>

**Encoding** UTF-8

**LazyData** true

**Imports** assertthat (>= 0.2.1), stringr (>= 1.4.0), purrr (>= 0.3.3),  
huxtable (>= 4.7.1)

**Suggests** testthat (>= 2.1.0), dplyr (>= 0.8.4), readr (>= 1.3.1), gt  
(>= 0.2.0), magrittr (>= 1.5), knitr (>= 1.28), rmarkdown (>= 2.1), readxl (>= 1.3.1), kableExtra (>= 1.1.0), plyr (>= 1.8.5), tidyverse (>= 1.3.0)

**RoxygenNote** 7.1.1

**VignetteBuilder** knitr

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

**RemoteUrl** <https://github.com/atorus-research/pharmartf>

**RemoteRef** HEAD

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pharmaRTF-package	<i>pharmaRTF</i>
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## Description

Enhanced RTF wrapper written in R for use with existing R tables packages such as huxtable or GT. This package fills a gap where tables in certain packages can be written out to RTF, but cannot add certain metadata or features to the document that are required/expected in a report for a regulatory submission, such as multiple levels of titles and footnotes, making the document landscape, and controlling properties such as margins.

This package intends to provide a flexible and reliable framework to connect R to a pharmaceutical reporting workflow.

## Future Plans

- colors
- graphs

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**See Also**

Useful links:

- Report bugs at <https://github.com/atorus-research/pharmaRTF/issues>

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add_titles	<i>Add hf_line title(s) and footnote(s) to a rtf_doc object</i>
------------	---

---

**Description**

Add hf\_line titles/footnote objects to a rtf\_doc object

**Usage**

```
add_titles(doc, ..., replace = FALSE)
```

```
add_footnotes(doc, ..., replace = FALSE)
```

**Arguments**

doc	rtf_doc on which hf_line object(s) (i.e. titles/footnotes) will be attached
...	A vector of hf_line objects to add passed to add_hf()
replace	If FALSE, lines will be appended/ordered with current header/footer lines. If TRUE, lines will replace the existing content.

**Value**

hf\_line object(s) (i.e. titles/footnotes) to be added

**Examples**

```
# Adding titles after rtf_doc construction
ht <- huxtable::huxtable(
  column1 = 1:5,
  column2 = letters[1:5]
)
rtf <- rtf_doc(ht)

rtf <- add_titles(rtf, hf_line("The Title"))

# Adding footnotes after rtf_doc construction
ht <- huxtable::huxtable(
  column1 = 1:5,
  column2 = letters[1:5]
)
rtf <- rtf_doc(ht)

rtf <- add_footnotes(rtf, hf_line("The Footnote"))
```

---

**align***Return or set text alignment*

---

**Description**

These property functions modify or return the text alignment in a `hf_line` object. Supported options are: 'left', 'right', 'center', and 'split'.

An alignment option of 'split' requires that two text elements are provided in the titles/footnotes `hf_line` object. The first text element will be aligned on the left and the second on the right.

**Usage**

```
align(x, ...)

align(x) <- value

set_align(x, value)
```

**Arguments**

<code>x</code>	<code>hf_line</code> object
<code>...</code>	Additional arguments passed to method dispatch.
<code>value</code>	A string representing the alignment.

**Value**

For `align()`, the alignment of the supplied `hf_line` object. For `set_align()` and ``align<-`()`, the modified object.

**Examples**

```

library(hxtable)
ht <- hxtable(
  column1 = 1:5,
  column2 = letters[1:5]
)
rtf <- rtf_doc(ht, list(hf_line("aTitle")))

pharmaRTF::align(rtf$titles[[1]])
# Returns "center"

pharmaRTF::align(rtf$titles[[1]]) <- "left"
# Sets alignment to 'left'

pharmaRTF::text(rtf$titles[[1]]) <- c("Left Text", "Right Text")
pharmaRTF::align(rtf$titles[[1]]) <- "split"
# When rtf is printed, "Left Text" will be left aligned, and "Right Text"
# will be right aligned. Both will appear on the same line in the document.

```

---

**bold**
*Return or set bold*


---

**Description**

These property functions modify or return the bold attribute of a `hf_line` object.

**Usage**

```

bold(x, ...)

bold(x) <- value

set_bold(x, value)

```

**Arguments**

<code>x</code>	A <code>hf_line</code> object
<code>...</code>	Additional arguments passed to method dispatch
<code>value</code>	A logical vector to set the value of the bold attribute

**Value**

For `bold()`, the bold attribute of the supplied `hf_line` object. For `bold<-`()` and `set_bold()`, the modified object.

**Examples**

```

library(huxtable)
ht <- huxtable(
  column1 = 1:5,
  column2 = letters[1:5]
)
rtf <- rtf_doc(ht, list(hf_line("aTitle")))

pharmaRTF::bold(rtf$titles[[1]])
# Returns FALSE

pharmaRTF::bold(rtf$titles[[1]]) <- TRUE
# Sets bold to TRUE

```

---

column\_header\_buffer *Return or set column\_header\_buffer attributes*

---

**Description**

These property functions modify and return the column header buffers of a `rtf_doc` object. These are stored as a named vector. Names should be `top` and `bottom`. This attribute adds rows to the top or bottom of the table column headers to pad it from the titles above or the table below.

**Usage**

```

column_header_buffer(x, ...)

column_header_buffer(x) <- value

set_column_header_buffer(x, ...)

```

**Arguments**

<code>x</code>	A <code>rtf_doc</code> object
<code>...</code>	Additional arguments passed to method dispatch. Should include argument <code>top</code> and <code>bottom</code> with numeric elements.
<code>value</code>	A named vector detailing the top and bottom buffer.

**Value**

For `column_header_buffer`, the `column_header_buffer` attribute of the supplied `rtf_doc`. For `column_header_buffer<-`()` and `set_column_header_buffer()`, the modified object.

**Examples**

```

library(hxtable)
ht <- hxtable(
  column1 = 1:5,
  column2 = letters[1:5]
)
rtf <- rtf_doc(ht, list(hf_line("aTitle")))

column_header_buffer(rtf)
# Returns c(top = 0, bottom = 0), the default

column_header_buffer(rtf) <- c(bottom = 1)
# Sets the bottom column_header_buffer to 1

```

---

font

*Return or set font*


---

**Description**

These property functions modify or return the fonts of an `rtf_doc` object or individual titles/footnotes objects of the `hf_line` class.

When used on an `rtf_doc` object to retrieve fonts, the distinct set of fonts of all objects contained within the `rtf_doc` are returned. When used on an `rtf_doc` to set fonts, the default font for the RTF document is set.

When used on titles/footnotes (`hf_line` objects), the font is either returned or set for that individual line.

**Usage**

```

font(x, ...)

font(x) <- value

set_font(x, value)

```

**Arguments**

<code>x</code>	<code>rtf_doc</code> object, the table of a <code>rtf_doc</code> object, or a <code>hf_line</code> object
<code>...</code>	Additional arguments passed to method dispatch
<code>value</code>	A string representing a font

**Value**

For `font()`, the font attribute of the object in the case of `hf_line` and the table, or each unique font in the table, titles, footnotes, and the overall document in the case of `rtf_doc`. For `set_font()` and `font<-`()`, the modified object.

**Examples**

```

library(hxtable)
ht <- hxtable(
  column1 = 1:5,
  column2 = letters[1:5]
)
rtf <- rtf_doc(ht, list(hf_line("text", font = "Comic Sans")))

pharmaRTF::font(rtf)
# Returns "Courier New" "Comic Sans"

pharmaRTF::font(rtf) <- "Times"

pharmaRTF::font(rtf)
# Returns "Times" "Comic Sans"

pharmaRTF::font(rtf$titles[[1]]) <- "Windings"

pharmaRTF::font(rtf)
# Returns "Times" "Windings"

```

---

**font\_size***Return or set font size*

---

**Description**

These property functions modify or return the font sizes of an `rtf_doc` object or individual titles/footnotes objects of the `hf_line` class.

When used on an `rtf_doc` object to retrieve font sizes, the document level default font size within the `rtf_doc` is returned. When used on an `rtf_doc` to set fonts, the default font size for the RTF document is set.

When used on titles/footnotes (`hf_line` objects), the font size is either returned or set for that individual line.

**Usage**

```

font_size(x, ...)

font_size(x) <- value

set_font_size(x, value)

```

**Arguments**

<code>x</code>	<code>rtf_doc</code> object or a <code>hf_line</code> object.
<code>...</code>	Additional arguments passed to method dispatch.
<code>value</code>	A numeric value for font size in points.



**Value**

For `font_size()`, the `font_size` attribute of the supplied `rtf_doc` or `hf_line`. For `font_size<-`()` and `set_font_size`, the modified object.

**Examples**

```
library(hxtable)
ht <- hxtable(
  column1 = 1:5,
  column2 = letters[1:5]
)
rtf <- rtf_doc(ht, list(hf_line("aTitle", font_size = 15)))

pharmaRTF::font_size(rtf)
# Returns 12

pharmaRTF::font_size(rtf) <- 14

pharmaRTF::font_size(rtf$titles[[1]])
# Returns 15
pharmaRTF::font_size(rtf)
# Returns 14
```

---

header\_height

*Return or set header/footer height*

---

**Description**

These property functions modify or return the `header_height/footer_height` attribute of a `rtf_doc` object. The header/footer height is the default amount of space allocated to the header/footer from the margin. If the content of the header/footer exceeds this amount of space, it will be expanded.

**Usage**

```
header_height(x, ...)

header_height(x) <- value

set_header_height(x, value)

footer_height(x, ...)

footer_height(x) <- value

set_footer_height(x, value)
```

**Arguments**

x                    A rtf\_doc object  
 ...                  Additional arguments passed to method dispatch  
 value                A numeric value to set the header\_height/footer\_height

**Value**

For header\_height()/footer\_height(), the header\_height/footer\_height attribute of the supplied rtf\_doc object. For `header\_height<-`() / `footer\_height<-`() and set\_header\_height()/set\_footer\_height(), the modified object.

**Examples**

```
library(hxtable)
ht <- hxtable(
  column1 = 1:5,
  column2 = letters[1:5]
)
rtf <- rtf_doc(ht, list(hf_line("aTitle")))

header_height(rtf)
# Returns 0.5, the default

footer_height(rtf) <- 1
# Sets footer_height to 1
```

---

header\_rows                    *Return or set the header\_rows*

---

**Description**

These property functions modify or return the header\_rows attribute of a rtf\_doc object. Only required and valid when the rtf\_doc table object is a hxtable.

The header rows control the number of rows taken from a hxtable table into the header of the document as the column header. When pulled into the headers, these rows are repeated on each page. Can be set to 0 to disable repeating column headers.

**Usage**

```
header_rows(x, ...)

header_rows(x) <- value

set_header_rows(x, value)
```

**Arguments**

x	A rtf_doc object
...	Additional arguments passed to method dispatch
value	A numeric value to change the header_rows attribute.

**Value**

For header\_rows(), the header\_rows attribute of the rtf\_doc object. For `header\_rows<-`() and set\_header\_rows(), the modified object.

**Examples**

```
ht <- huxtable::huxtable(
  column1 = 1:5,
  column2 = letters[1:5]
)
rtf <- rtf_doc(ht, list(hf_line("aTitle")))

header_rows(rtf)
# This is a wrapper for header_rows(x$table)
header_rows(rtf$table)
# Both of these return 1, the default

header_rows(rtf$table) <- 0
# Sets header_rows to 0
```

---

hf\_line

---

*Create a title line container*


---

**Description**

hf\_line objects represent individual title or footnote lines and their associated metadata. These objects are passed to an rtf\_doc for display in the header or footer of an RTF document.

A character vector of length  $\leq 2$  describes the text to display. Using a single text element, the text can be aligned left, right, or center. Using two text elements, the alignment can be set to “split”, which will left align the first element, and right align the second. If alignment is set to anything else, the text elements will be pasted together.

Lines can either be passed to the titles/footnotes arguments in the call to rtf\_doc or added later with the add\_titles or add\_footnotes functions. Supported properties are detailed in the arguments section.

**Usage**

```
hf_line(
  ...,
  align = c("center", "left", "right", "split"),
  bold = FALSE,
  italic = FALSE,
  font = NA,
  font_size = NA,
  index = NA
)
```

**Arguments**

...	A character list/vector. If length(...) is 2 and align is not 'split', values are pasted together.
align	Text alignment in document. Options are 'center', 'left', 'right', and 'split'. A 'split' alignment will left align the string in the first text item and right align the second. Defaults to center.
bold	TRUE or FALSE. Defaults to FALSE.
italic	TRUE or FALSE. Defaults to FALSE.
font	A string to specify the font display. Ensure the intended RTF reader can display the selected font. Fonts for all fields will default to the default font of the rtf_doc object, which unless otherwise assigned, is Courier New.
font_size	Font size in points. Font sizes for all fields will default to the default font size of the rtf_doc object, which unless otherwise assigned, is 12
index	Position to display header or footnote lines in the RTF document. Orders in ascending order with NAs last. Defaults to NA.

**Value**

An object of class hf\_line with the properties described in the Arguments section.

**Supported Formatting**

Several special display formats are supported to display document data. When the rtf\_doc is written, the package will determine if the text of an hf\_line object starts with a keyword. Regular expression matching and replacement is used for formatting.

- **PAGE\_FORMAT**: - Can take up to two replacements to format current page(first), and total number of pages(second). Page numbers are replaced in the string using %s For example, for a format of Page 1 of 5, use PAGE\_FORMAT: Page %s of %s. For a format of just 5, use PAGE\_FORMAT: %s.
- **DATE\_FORMAT**: - Describes the date/time the document was generated. Formats are specified using standard R date formatting tokens. Details on formatting dates can be found [here](#).
- **FILE\_PATH**: - Describes the file path the R session was executed from. The location of the executing file will be populated over the token replacement string "%s". Formats can be

specified like "FILE\_PATH: Executed from: %s" or simply "FILE\_PATH: %s". Note that the location of the executing file in R may not be intuitive. There are multiple ways to determine the containing R file based on how it was executed.

- When the file is executed using `Rscript`, this field will be populated as the executed Rscript file.
- When the file is sourced, this field will be populated with the location of the sourced file.
- When a file is run interactively (i.e. from the R console), this field will be populated as `<run interactively>`.

## Examples

```
# Adding lines during rtf_doc construction
ht <- huxtable::huxtable(
  column1 = 1:5,
  column2 = letters[1:5]
)
titles_l <- list(
  hf_line(c("The Title Left", "The Titles Right"), align = "split"),
  hf_line("A Bold, italic Title", bold = TRUE, italic = TRUE,
    align = "left", font_size = 20, font = "Times New Roman")
)
rtf <- rtf_doc(ht, titles = titles_l)

# Adding lines after rtf_doc construction
rtf <- add_footnotes(rtf,
  hf_line("PAGE_FORMAT: Page %s of %s"),
  hf_line("DATE_FORMAT: %H:%M %A, %B %d, %Y"),
  hf_line("FILE_PATH: Source: %s")
)
```

---

`ignore_cell_padding`    *Return or set ignore\_cell\_padding*

---

## Description

These property functions modify and return the `ignore_cell_padding` attribute of a `rtf_doc` object. By default, the `huxtable` package will pad rows of a table. This attribute will remove those default settings – which allow the cells to have a smaller amount of padding than setting the cell padding to 0. See the Details section for a more thorough description of the implementation.

## Usage

```
ignore_cell_padding(x, ...)

ignore_cell_padding(x) <- value

set_ignore_cell_padding(x, value)
```

**Arguments**

x	A rtf_doc object
...	Additional arguments passed to method dispatch
value	A logical value to set the attribute

**Details**

Cell padding in RTF code has multiple command words associated with it. Hxtable uses the command word `\clpad<t,b,l,r>N` to control the cell padding. This command word is additionally controlled by the command word `\clpadf<t,b,l,r>N`. There are two possible values for N in `\clpadf<t,b,l,r>N`:

- 0: Null. This ignores `\clpad<t,b,l,r>` in favor of `\trgaph` (Word 97 style cell padding).
- 3: Twips

The `ignore_cell_padding` function toggles the `\clpadf<t,b,l,r>N` command words in the RTF document to 0 instead of 3. By using Word 97 style cell padding, the minimum amount of space is closer than using the 0 twips setting when the RTF is rendered inside Word. This effectively closes the gap between rows, which may be a desirable appearance in some outputs.

More information on these RTF settings can be found [here](#).

**Value**

For `ignore_cell_padding()`, the `ignore_cell_padding` attribute of the supplied `rtf_doc` object. For ``ignore_cell_padding<-`()` and `set_ignore_cell_padding()`, the modified object.

**Examples**

```
library(hxtable)
ht <- hxtable(
  column1 = 1:5,
  column2 = letters[1:5]
)
rtf <- rtf_doc(ht, list(hf_line("aTitle")))

ignore_cell_padding(rtf)
# Returns FALSE, the default

ignore_cell_padding(rtf) <- TRUE
# Sets ignore_cell_padding to TRUE
```

---

index	<i>Return or set index</i>
-------	----------------------------

---

### Description

These property functions modify or return the index of a `hf_line` object. The `index` sets the order in which a title will appear. Indices can be any numeric value as long as they are not duplicated.

### Usage

```
index(x, ...)  
  
index(x) <- value  
  
set_index(x, value)
```

### Arguments

<code>x</code>	A <code>hf_line</code> object
<code>...</code>	Additional arguments passed to method dispatch
<code>value</code>	Numeric value to order index

### Value

For `index()`, the `index` attribute of the supplied `hf_line` object. For `index<-()` and `set_index()`, the modified object.

### Examples

```
library(hxtable)  
ht <- hxtable(  
  column1 = 1:5,  
  column2 = letters[1:5]  
)  
rtf <- rtf_doc(ht, list(hf_line("aTitle")))  
  
index(rtf$titles[[1]])  
# Returns NULL  
  
index(rtf$titles[[1]]) <- 2  
# Sets index of first titles to 2
```

---

`italic`*Return or set italics*

---

### Description

These property functions modify or return the italics attribute of a `hf_line` object. The `italic` attribute takes on a logical value of `TRUE` or `FALSE`, where `TRUE` italicizes the text of the line.

### Usage

```
italic(x, ...)  
  
italic(x) <- value  
  
set_italic(x, value)
```

### Arguments

<code>x</code>	A <code>hf_line</code> object
<code>...</code>	Additional arguments passed to method dispatch
<code>value</code>	A logical vector to set the value of the bold attribute

### Value

For `italic()`, the italic attribute of the supplied `hf_line`. For `italic<-()` and `set_italic()` the modified object.

### Examples

```
library(hxtable)  
ht <- hxtable(  
  column1 = 1:5,  
  column2 = letters[1:5]  
)  
rtf <- rtf_doc(ht, list(hf_line("aTitle")))  
  
pharmaRTF::italic(rtf$titles[[1]])  
# Returns FALSE  
  
pharmaRTF::italic(rtf$titles[[1]]) <- TRUE  
# Sets italic to TRUE
```



---

margins	<i>Return or set margins</i>
---------	------------------------------

---

### Description

These property functions return or set the margin attribute of a `rtf_doc` object. These are stored as a named vector. Names should be `top`, `bottom`, `left`, and `right`. Margins are measured in inches.

### Usage

```
margins(x, ...)  
  
margins(x) <- value  
  
set_margins(x, value)
```

### Arguments

<code>x</code>	A <code>rtf_doc</code> object
<code>...</code>	Additional arguments passed to method dispatch
<code>value</code>	A named list or vector detailing the page margins

### Value

For `margin()`, a named vector of the margin attribute of the supplied `rtf_doc`. For ``margin<-()`` and `set_margin()` the modified object.

### Examples

```
library(hxtable)  
ht <- hxtable(  
  column1 = 1:5,  
  column2 = letters[1:5]  
)  
rtf <- rtf_doc(ht, list(hf_line("aTitle")))  
  
margins(rtf)  
# Returns c(top = 1, bottom = 1, left = 1, right = 1)  
  
margins(rtf) <- c(top = 2)  
# Sets top margin to 2
```

---

orientation	<i>Return or set orientation</i>
-------------	----------------------------------

---

### Description

These property functions modify or return the orientation attribute of a `rtf_doc` object. Options are landscape or portrait. See the [rtf\\_doc](#) help page for important notes about this property.

### Usage

```
orientation(x, ...)  
  
orientation(x) <- value  
  
set_orientation(x, value)
```

### Arguments

<code>x</code>	A <code>rtf_doc</code> object
<code>...</code>	Additional arguments passed to method dispatch
<code>value</code>	A character vector of either 'landscape' or 'portrait'

### Value

For `orientation()`, the orientation attribute of the supplied `rtf_doc` object. For `orientation<-(())` and `set_orientation()` the modified object.

### Examples

```
library(hxtable)  
ht <- hxtable(  
  column1 = 1:5,  
  column2 = letters[1:5]  
)  
rtf <- rtf_doc(ht, list(hf_line("aTitle")))  
  
orientation(rtf)  
# Returns landscape  
  
orientation(rtf) <- "portrait"  
# Sets orientation to portrait
```

---

pagesize	<i>Return or set pagesize</i>
----------	-------------------------------

---

### Description

These property functions modify or return the pagesize attribute of a `rtf_doc` object. Stored as a named vector with height and width names.

### Usage

```
pagesize(x, ...)  
pagesize(x) <- value  
set_pagesize(x, value)
```

### Arguments

<code>x</code>	A <code>rtf_doc</code> object
<code>...</code>	Additional arguments passed to method dispatch
<code>value</code>	A named numeric vector with the names height and width.

### Details

Note that when the orientation of the document is switched to 'portrait', the height and width will reverse when the RTF document is being written - but the attribute values will not change. This is because the default `rtf_doc` orientation is 'landscape', and switching the attributes of the object allows for a possibility of inadvertently overriding the functionality of the `orientation` attribute.

### Value

For `pagesize()`, the pagesize attribute of the `rtf_doc` object. For `pagesize<-`()` and `set_pagesize()`, the modified object.

### Examples

```
library(hxtable)  
ht <- hxtable(  
  column1 = 1:5,  
  column2 = letters[1:5]  
)  
rtf <- rtf_doc(ht, list(hf_line("aTitle")))  
  
pagesize(rtf)  
# Returns c(height = 8.5, width = 11.0)  
  
pagesize(rtf) <- c(height = 12)  
# Sets height of page to 12 inches
```

```
orientation(rtf) <- 'portrait'
pagesize(rtf)
# width height
# 8.5 12.0
# Note: Despite changing orientation, attributes don't change
```

---

rtf\_doc

*Create a rtf\_doc object*


---

## Description

This constructs the main object that will be used for an RTF document. The object is composed of a table, titles(s), and footnote(s).

A table contained in the `rtf_doc` object should be a supported class. The `huxtable` package is the most supported, however our intention is to support other packages capable of writing RTF tables as well. Currently, it is planned to support the `gt` package, but the `gt` package's RTF methods are not functional.

The titles and footnotes are composed of `hf_line` objects.

See the [vignette](#) for a more complete view of intended usage.

## Usage

```
rtf_doc(table, titles = list(), footnotes = list(), header_rows = 1)
```

## Arguments

<code>table</code>	A table of a supported class.
<code>titles</code>	A list of <code>hf_line</code> objects containing table titles and associated formatting.
<code>footnotes</code>	A list of <code>hf_line</code> objects containing table footnotes and associated formatting.
<code>header_rows</code>	An integer determining how many rows of the table are column headers. Only used for <code>huxtable</code> tables. Can be set to 0 to disable repeating column headers.

## Value

A list with a table, titles, and footnotes component. Class of "rtf\_doc" with the properties described below.

## rtf\_doc Properties

Document level properties set the defaults and will be used where they are not overridden by `hf_line` or table properties.

- `font` - A string representing the font to display when it is not specified by the table or `hf_line`. Defaults to Courier New.

- `font_size` - A numeric value representing the size of the font in points. Defaults to 12.
- `margins` - Inches of margins in the document as a named vector. Names are `top`, `bottom`, `left`, and `right`. Defaults to 1 for all.
- `orientation` - Orientation of the document. Defaults to `'landscape'`. When `'portrait'`, the height and width are switched while writing the document to effectively rotate the document 90 degrees. For example, if width is 11" and height is 8.5", while writing the document will have a height of 11" and a width of 8.5". Additionally, when `'landscape'`, a keyword is written to the RTF to indicate that the document is landscape. .
- `header_height` - Height of the header where the titles and column headers are displayed. Defaults to .5 inches.
- `footer_height` - Height of the footer where the footnotes are displayed. Defaults to .5 inches.
- `pagesize` - Size of the page in inches. Defaults to 8.5(height) by 11(width). These defaults align with the default orientation of `'landscape'`. When the orientation is switched to `'portrait'`, the height and width will switch while the RTF document is being generated, but the document attributes themselves will not change.
- `header_rows` - Huxtable table only. Number of rows that are defined as the header that will be repeated across pages. Defaults to 1. Can be set to 0 to disable repeating column headers.
- `ignore_cell_padding` - Huxtable table only. Flag to ignore cell padding padding that is added during RTF encoding. Minimizes the amount of space between rows. Defaults to `FALSE`.
- `column_header_buffer` - This attribute adds rows to the top or bottom of the table column headers to pad it from the titles above or the table below. Defaults to 0 and 0.

### See Also

[hf\\_line](#)

### Examples

```
# Adding lines during rtf_doc construction
ht <- huxtable::huxtable(
  column1 = 1:5,
  column2 = letters[1:5]
)
# Set table properties
library(magrittr) #load in a pipe
ht %>%
  huxtable::set_bold(1, 1:ncol(ht), TRUE) %>%
  huxtable::set_escape_contents(TRUE) %>%
  huxtable::set_col_width(c(0.25, 0.75))

rtf <- rtf_doc(ht, titles = list(hf_line("My Header")))
# Set document properties
rtf <- rtf %>%
  set_font_size(15) %>%
  set_ignore_cell_padding(TRUE)

names(rtf)
```

```
write_rtf(rtf, file = tempfile())
```

---

text

*Return or set text*

---

### Description

These property functions modify or return the fonts of a `rtf_doc` object. `text()` will always return a vector of length 2. If the text is only of length one an empty string will be appended.

### Usage

```
text(x, ...)

text(x) <- value

set_text(x, value)
```

### Arguments

`x`                    A `hf_line` object  
`...`                 Additional arguments passed to method dispatch  
`value`                A character vector of length 0, 1, or 2 to set the text value of a `hf_line` object.

### Value

For `text()`, the text vector of the supplied `hf_line` object. For `text<-()` and `set_text()`, the modified object.

### Examples

```
library(hxtable)
ht <- hxtable(
  column1 = 1:5,
  column2 = letters[1:5]
)
rtf <- rtf_doc(ht, list(hf_line("aTitle")))

text(rtf$titles[[1]])
# Returns "aTitle" ""

text(rtf$titles[[1]]) <- "aDifferentTitle"
# Sets titles to "aDifferentTitle"
```

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`titles_and_footnotes_from_df`*Read titles and footnotes from a dataframe*

---

## Description

Reads a data frame with header/footer information and attaches it to an `rtf_doc` object. The most effective way to use this function is to pass information to a custom reader for your process. See Details section for more information.

## Usage

```
titles_and_footnotes_from_df(  
  doc,  
  from.df = NULL,  
  from.file = NULL,  
  reader = NULL,  
  ...  
)
```

## Arguments

<code>doc</code>	A <code>rtf_doc</code> object to append header and footnote information.
<code>from.df</code>	A <code>data.frame</code> object with title and footnote information.
<code>from.file</code>	A file path to a file with title and footnote information.
<code>reader</code>	A function to read the data from the <code>from.file</code> argument.
<code>...</code>	Parameters passed to <code>read_hf</code> where they are processed and constructed into <code>hf_line</code> objects.

## Details

`Titles_and_footnotes_from_df` allows you to attach titles and footnotes (as `hf_line` objects) from a `data.frame`. This `data.frame` could be a `data.frame` in your local environment, or read in from an external file. The best way to utilize this method is to create a custom reader function. This custom reader function is a function that you develop to:

- Read a source file into a `data.frame`
- Preprocess as necessary to keep only necessary records and variables
- Ensure that variables are the correct data type

`Titles_and_footnotes_from_df` allows you to pass arguments into the reader function, which gives you the capability to keep titles and footnotes for all of your outputs in a central file and pass a filtering option, or any additional parameters as necessary. For an example implementation, see our [vignette](#).

**Value**

A `rtf_doc` object with header/footer information attached.

**Required Columns**

The following columns are required fields in a `data.frame` passed to `titles_and_footnotes_from_df`:

- `type`(character - 'title' or 'footnote')
- `text1`(character)
- `text2`(character)
- `align`(character - left, right, center, or split)
- `bold`(logical)
- `italic`(logical)
- `font`(character)
- `index`(numeric)

---

`view_footnotes`

*View footnote information*

---

**Description**

View footnotes attached to an `rtf_doc` as a `data.frame`.

**Usage**

```
view_footnotes(doc)
```

**Arguments**

`doc` `rtf_doc` object

**Value**

`data.frame` of the footnote information



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view_titles	<i>View title information</i>
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**Description**

View titles attached to an `rtf_doc` as a `data.frame`.

**Usage**

```
view_titles(doc)
```

**Arguments**

`doc`                    `rtf_doc` object

**Value**

`data.frame` of the title information

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write_rtf	<i>Write RTF document</i>
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**Description**

Writes the RTF document to a specified file.

**Usage**

```
write_rtf(doc, file = NULL)
```

**Arguments**

`doc`                    The RTF document to be written.  
`file`                   A character string naming a file open for writing.

**Value**

File is written to the file provided by sinking the console output. No output is returned to the R environment.

**See Also**

[http://www.biblioscape.com/rtf15\\_spec.htm](http://www.biblioscape.com/rtf15_spec.htm), [http://latex2rtf.sourceforge.net/rtfspec\\_7.html#rtfspec\\_tabledef](http://latex2rtf.sourceforge.net/rtfspec_7.html#rtfspec_tabledef)

**Examples**

```
## Create and write RTF document
ht <- huxtable::huxtable(
  column1 = 1:5,
  column2 = letters[1:5]
)
rtf <- rtf_doc(ht)

write_rtf(rtf, file=tempfile()) #writes a table with no header/footnotes to 'test.rtf'
```

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