

Package ‘officedown’

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Type Package

Title Enhanced 'R Markdown' Format for 'Word' and 'PowerPoint'

Version 0.4.1

Description Allows production of 'Microsoft' corporate documents from 'R Markdown' by reusing formatting defined in 'Microsoft Word' documents. You can reuse table styles, list styles but also add column sections, landscape oriented pages. Table and image captions as well as cross-references are transformed into 'Microsoft Word' fields, allowing documents edition and merging without issue with references; the syntax conforms to the 'bookdown' cross-reference definition. Objects generated by the 'officer' package are also supported in the 'knitr' chunks. 'Microsoft PowerPoint' presentations also benefit from this as well as the ability to produce editable vector graphics in 'PowerPoint' and also to define placeholder where content is to be added.

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URL <https://ardata-fr.github.io/officeverse/>,
<https://davidgohel.github.io/officedown/>

BugReports <https://github.com/davidgohel/officedown/issues>

Imports grDevices, knitr, memoise, officer (>= 0.6.7), rlang, rmarkdown, rvg (>= 0.3.4), utils, uuid, xml2, yaml

Suggests bookdown (>= 0.13), doconv (>= 0.3.0), flextable (>= 0.9.7), ggplot2, testthat (>= 3.0.0)

VignetteBuilder knitr

Config/testthat/edition 3

Encoding UTF-8

RoxygenNote 7.3.2

SystemRequirements pandoc (>= 2.0) - <http://pandoc.org>

NeedsCompilation no

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Description

When used in a loop, calls to blocks do not generate output because knit_print method is not called. Use the function to force printing. Also you should tell the chunk to use results 'asis' (by adding results='asis' to your chunk header).

Usage

```
knit_print_block(x, ...)
```

Arguments

x	a block object, result of a block function from officer package
...	unused arguments

Value

None. the function only print XML code.

See Also

Other functions that force printing: [knit_print_run\(\)](#)

Examples

```
library(rmarkdown)
rmd_file_src <- system.file(
  package = "officedown", "examples", "word_loop.Rmd")
rmd_file_des <- tempfile(fileext = ".Rmd")
if(pandoc_available()){

  file.copy(rmd_file_src, to = rmd_file_des)
  docx_file_1 <- tempfile(fileext = ".docx")
  render(rmd_file_des, output_file = docx_file_1, quiet = TRUE)

  if(file.exists(docx_file_1)){
    message("file ", docx_file_1, " has been written.")
  }
}
```

knit_print_run

Force Run Printing while Knitting

Description

When used in a loop, runs do not outputs because `knit_print` method is not called. Use the function to force printing. Also you should tell the chunk to use results 'as-is' (by adding `results='asis'` to your chunk header).

Usage

```
knit_print_run(x, ...)
```

Arguments

x	a run object, result of a run function from officer package
...	unused arguments

Value

None. the function only print XML code.

See Also

Other functions that force printing: [knit_print_block\(\)](#)

Examples

```
library(rmarkdown)
rmd_file_src <- system.file(
  package = "officedown", "examples", "word_loop.Rmd")
rmd_file_des <- tempfile(fileext = ".Rmd")
if(pandoc_available()){

  file.copy(rmd_file_src, to = rmd_file_des)
  docx_file_1 <- tempfile(fileext = ".docx")
  render(rmd_file_des, output_file = docx_file_1, quiet = TRUE)

  if(file.exists(docx_file_1)){
    message("file ", docx_file_1, " has been written.")
  }
}
```

rdocx_document

Advanced R Markdown Word Format

Description

'R Markdown' Format for converting from 'R Markdown' document to an MS Word document.

The function enhances the output offered by `rmarkdown::word_document()` with advanced formatting features.

Usage

```
rdocx_document(
  base_format = "rmarkdown::word_document",
  tables = list(),
  plots = list(),
  lists = list(),
  mapstyles = list(),
  page_size = NULL,
  page_margins = NULL,
  reference_num = TRUE,
  ...
)
```

Arguments

base_format a scalar character, the format to be used as a base document for 'officedown'. Default to `word_document` but can also be `word_document2()` from `bookdown`. When the `base_format` used is `bookdown::word_document2`, the `number_sections` parameter is automatically set to `FALSE`. Indeed, if you want numbered titles, you are asked to use a Word document template with auto-numbered titles (the title styles of the default 'rdocx_document' template are already set to `FALSE`).

tables	see section 'Tables' below.
plots	see section 'Plots' below.
lists	see section 'Lists' below.
mapstyles	a named list of style to be replaced in the generated document. <code>list("Normal" = c("Author", "Date"))</code> will result in a document where all paragraphs styled with <code>stylename "Date"</code> and <code>"Author"</code> will be then styled with <code>stylename "Normal"</code> .
page_size, page_margins	default page and margins dimensions. If not null (the default), these values are used to define the default Word section. See <code>officer::page_size()</code> and <code>officer::page_mar()</code> .
reference_num	if TRUE, text for references to sections will be the section number (e.g. '3.2'). If FALSE, text for references to sections will be the text (e.g. 'section title').
...	arguments used by <code>word_document</code>

Value

R Markdown *output format* to pass to `render`.

Tables

a list that can contain few items to style tables and table captions. Missing items will be replaced by default values. Possible items are the following:

- `style`: the Word `stylename` to use for tables.
- `layout`: 'autofit' or 'fixed' algorithm. See `table_layout`.
- `width`: value of the preferred width of the table in percent (base 1).
- `topcaption`: caption will appear before (on top of) the table,
- `tab.lp`: caption table sequence identifier. All table captions are supposed to have the same identifier. It makes possible to insert list of tables. It is also used to prefix your 'bookdown' cross-reference call; if `tab.lp` is set to "tab:", a cross-reference to table with id "xxxxx" is written as `\@ref(tab:xxxxx)`. It is possible to set the value to your default Word value (in French for example it is "Tableau", in German it is "Tabelle"), you can then add manually a list of tables (go to the "References" tab and select menu "Insert Table of Figures").
- `caption`; caption options, i.e.:
 - `style`: Word `stylename` to use for table captions.
 - `pre`: prefix for numbering chunk (default to "Table ").
 - `sep`: suffix for numbering chunk (default to ": ").
 - `tnd`: (only applies if positive.)Inserts the number of the last title of level `tnd` (i.e. 4.3-2 for figure 2 of chapter 4.3).
 - `tns`: separator to use between title number and table number. Default is "-".
 - `fp_text`: text formatting properties to apply to caption prefix - see `officer::fp_text_lite()`.
- `conditional`: a list of named logical values:
 - `first_row` and `last_row`: apply or remove formatting from the first or last row in the table

- first_column and last_column: apply or remove formatting from the first or last column in the table
- no_hband and no_vband: don't display odd and even rows or columns with alternating shading for ease of reading.

Default value is (in YAML format):

```

style: Table
layout: autofit
width: 1.0
topcaption: true
tab.lp: 'tab:'
caption:
  style: Table Caption
  pre: 'Table'
  sep: ':'
  tnd: 0
  tns: '-'
  fp_text: !expr officer::fp_text_lite(bold = TRUE)
conditional:
  first_row: true
  first_column: false
  last_row: false
  last_column: false
  no_hband: false
  no_vband: true

```

Plots

Argument plot is expected to be a list. It can contain few items to style figures and figure captions.

You don't have to provide values for each items of the list, missing items are replaced by default values. Possible items are:

- style: the name of the "Word" paragraph style to use for the paragraphs that will contain a graphic.
- align: alignment of paragraphs containing graphics (possible values are 'left', 'right' and 'center').
- topcaption: specify whether the legend should appear above the graphic (TRUE) or below the graphic (FALSE).
- fig.lp: Sequence identifier for figure legends. All graphics' captions are supposed to have the same identifier. This value is used for different features:
 - It is used to insert a table of figures.
 - It is also used to prefix your 'bookdown' cross-reference call; if fig.lp is set to "fig:", a cross-reference to the figure with id "xxxxx" is written as \@ref(fig:xxxxx).

It is possible to set the Word default value (in French for example, it is "Figure"), you can then manually add a list of figures (go to the "References" tab and select the "Insert a table of figures" menu).

- caption: a list for captions' options, i.e.
 - style: the name of the "Word" paragraph style to use for the paragraphs that will contain figures' captions.
 - pre: prefix for numbering chunk (default to "Figure ").
 - sep: suffix for numbering chunk (default to ": ").
 - tnd: (only applies if positive). Inserts the number of the last title of level tnd (i.e. 4.3-2 for figure 2 of chapter 4.3).
 - tns: separator to use between title number and figure number. Default is "-".
 - fp_text: text formatting properties to apply to caption prefix - see [officer::fp_text_lite\(\)](#).

Default value is (in YAML format):

```
style: Normal
align: center
topcaption: false
fig.lp: 'fig:'
caption:
  style: Image Caption
  pre: 'Figure '
  sep: ': '
  tnd: 0
  tns: '-'
  fp_text: !expr officer::fp_text_lite(bold = TRUE)
```

Lists

The parameter lists is a list that can contain two named items:

- ol.style: style to use for ordered lists.
- ul.style: style to use for unordered lists.

Default values are `list(ol.style = NULL, ul.style = NULL)`.

Expected values are the stylenames to be used to replace the style of ordered and unordered lists created by pandoc. If NULL, no replacement is made.

These values in YAML format are:

```
output:
  officedown::rdocx_document:
    lists:
      ol.style: null
      ul.style: null
```

They can have values corresponding to existing stylenames (of type 'numbering'). With package 'officer', we can read these values with [styles_info\(\)](#).

```
library(officer)
docx_file <- system.file(
```

```

package = "officedown", "examples",
"bookdown", "template.docx"
)
doc <- read_docx(docx_file)
styles_info(doc, type = "numbering")[, 1:6]
#>   style_type   style_id style_name   base_on is_custom is_default
#> 13 numbering Aucuneliste   No List    <NA>     FALSE     TRUE
#> 40 numbering Defaultul Default ul Aucuneliste   TRUE     FALSE
#> 41 numbering Defaultol Default ol Aucuneliste   TRUE     FALSE

```

From the above available values, the possible configuration is possible:

```

output:
  officedown::rdocx_document:
    lists:
      ol.style: 'Default ol'
      ul.style: 'Default ul'

```

Finding stylenames

You can access them in the Word template used. Function `styles_info()` can let you read these styles.

You need 'officer' to read the stylenames (to get information from a specific "reference_docx", change `ref_docx_default` in the example below.

```

library(officer)
docx_file <- system.file(package = "officer", "template", "template.docx")
doc <- read_docx(docx_file)

```

To read paragraph stylenames:

```

styles_info(doc, type = "paragraph")[, 1:6]
#>   style_type   style_id   style_name   base_on is_custom is_default
#> 1  paragraph   Normal     Normal     <NA>     FALSE     TRUE
#> 2  paragraph   Titre1     heading 1 Normal     FALSE     FALSE
#> 3  paragraph   Titre2     heading 2 Normal     FALSE     FALSE
#> 4  paragraph   Titre3     heading 3 Normal     FALSE     FALSE
#> 9  paragraph   centered   centered   Normal     TRUE      FALSE
#> 15 paragraph   ImageCaption Image Caption Normal     TRUE      FALSE
#> 16 paragraph   TableCaption Table Caption ImageCaption TRUE      FALSE
#> 18 paragraph   TM1         toc 1      Normal     FALSE     FALSE
#> 19 paragraph   TM2         toc 2      Normal     FALSE     FALSE
#> 20 paragraph   Textedebulles Balloon Text Normal     FALSE     FALSE
#> 23 paragraph   graphictitle graphic title ImageCaption TRUE      FALSE
#> 24 paragraph   tabletitle  table title TableCaption TRUE      FALSE

```

To read table stylenames:

```

styles_info(doc, type = "table")[, 1:6]
#>   style_type      style_id      style_name      base_on is_custom
#> 6      table      TableauNormal      Normal Table      <NA>      FALSE
#> 10     table      tabletemplate      table_template TableauNormal      TRUE
#> 11     table      Listeclair-Accent2 Light List Accent 2 TableauNormal      FALSE
#> 17     table      Tableauprofessionnel Table Professional TableauNormal      FALSE
#>   is_default
#> 6          TRUE
#> 10         FALSE
#> 11         FALSE
#> 17         FALSE

```

To read list stylenames:

```

styles_info(doc, type = "numbering")[, 1:6]
#>   style_type      style_id      style_name      base_on is_custom is_default
#> 7 numbering      Aucuneliste      No List      <NA>      FALSE      TRUE

```

R Markdown yaml

The following demonstrates how to pass arguments in the R Markdown yaml:

```

---
output:
  officedown::rdocx_document:
    reference_docx: pandoc_template.docx
    tables:
      style: Table
      layout: autofit
      width: 1.0
      topcaption: true
      tab.lp: 'tab:'
      caption:
        style: Table Caption
        pre: 'Table '
        sep: ': '
        tnd: 0
        tns: '-'
        fp_text: !expr officer::fp_text_lite(bold = TRUE)
      conditional:
        first_row: true
        first_column: false
        last_row: false
        last_column: false
        no_hband: false
        no_vband: true
    plots:
      style: Normal
      align: center

```

```

fig.lp: 'fig:'
topcaption: false
caption:
  style: Image Caption
  pre: 'Figure '
  sep: ': '
  tnd: 0
  tns: '-'
  fp_text: !expr officer::fp_text_lite(bold = TRUE)
lists:
  ol.style: null
  ul.style: null
mapstyles:
  Normal: ['First Paragraph', 'Author', 'Date']
page_size:
  width: 11906 / 1440
  height: 16838 / 1440
  orient: "portrait"
page_margins:
  bottom: 1
  top: 1
  right: 1417 / 1440
  left: 1417 / 1440
  header: 708 / 1440
  footer: 708 / 1440
  gutter: 0 / 1440
reference_num: true
---
```

Known limitations

When using `knitr::include_graphics()` in `'rdocx_document'`, the image must be local, while with standard `'R Markdown'` output documents, images located on Internet are supported.

Examples

```

# rdocx_document basic example -----
library(rmarkdown)
library(officedown)

if (pandoc_available() && pandoc_version() >= numeric_version("2.0")) {
  # minimal example -----
  example <- system.file(
    package = "officedown",
    "examples/minimal_word.Rmd"
  )
  rmd_file <- tempfile(fileext = ".Rmd")
  file.copy(example, to = rmd_file)

  docx_file <- tempfile(fileext = ".docx")
}
```

```

  render(rmd_file, output_file = docx_file, quiet = TRUE)
}

```

rpptx_document

Advanced R Markdown PowerPoint Format

Description

Format for converting from R Markdown to an MS PowerPoint document.

The function will allow you to specify the destination of your chunks in the output PowerPoint file. In this case, you must specify the layout and master for the layout you want to use, as well as the ph argument, which will allow you to specify the placeholder to be generated to place the result. Use the officer package to help you choose the identifiers to use.

This function also support Vector graphics output in an editable format (using package rvg). Wrap you R plot commands with function dml to use this graphic capability.

Usage

```

rpptx_document(
  base_format = "rmarkdown::powerpoint_presentation",
  layout = "Title and Content",
  master = "Office Theme",
  tcf = list(),
  ...
)

```

Arguments

base_format	a scalar character, format to be used as a base document for officedown. default to powerpoint_presentation but can also be powerpoint_presentation2 from bookdown
layout	default slide layout name to use
master	default master layout name where layout is located
tcf	default conditional formatting settings defined by officer::table_conditional_formatting()
...	arguments used by powerpoint_presentation

Value

R Markdown output format to pass to [render](#)

Examples

```
library(rmarkdown)
run_ok <- pandoc_available() && pandoc_version() > numeric_version("2.4")

if(run_ok){
  example <- system.file(package = "officedown",
    "examples/minimal_powerpoint.Rmd")
  rmd_file <- tempfile(fileext = ".Rmd")
  file.copy(example, to = rmd_file)

  pptx_file_1 <- tempfile(fileext = ".pptx")
  render(rmd_file, output_file = pptx_file_1)
}
```

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