

# Package ‘rvg’

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**Type** Package

**Title** R Graphics Devices for 'Office' Vector Graphics Output

**Version** 0.4.0

**Description** Vector Graphics devices for 'Microsoft PowerPoint' and 'Microsoft Excel'. Functions extending package 'officer' are provided to embed 'DrawingML' graphics into 'Microsoft PowerPoint' presentations and 'Microsoft Excel' workbooks.

**License** GPL-3

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

**BugReports** <https://github.com/davidgohel/rvg/issues>

**Depends** R (>= 3.0)

**Imports** gdtools (>= 0.3.3), grDevices, officer (>= 0.6.2), Rcpp (>= 0.12.12), rlang, systemfonts, xml2 (>= 1.0.0)

**Suggests** grid, testthat

**LinkingTo** Rcpp, systemfonts

**Encoding** UTF-8

**RoxygenNote** 7.3.3

**SystemRequirements** libpng

**NeedsCompilation** yes

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**Repository** CRAN

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|     |                                                                    |
|-----|--------------------------------------------------------------------|
| dml | <i>Wrap plot instructions for DrawingML plotting in Powerpoint</i> |
|-----|--------------------------------------------------------------------|

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Description

A simple wrapper to mark the plot instructions as Vector Graphics instructions. It produces an object of class 'dml' with a corresponding method [ph\\_with](#).  
The function enable usage of any R plot with argument code and with ggplot objects with argument ggobj.

Usage

```
dml(  
  code,  
  ggobj = NULL,  
  bg = "white",  
  fonts = list(),  
  pointsize = 12,  
  editable = TRUE,  
  ...  
)
```

Arguments

- code                   plotting instructions
- ggobj                  ggplot object to print. argument code will be ignored if this argument is supplied.
- bg, fonts, pointsize, editable                   Parameters passed to [dml\\_pptx](#)
- ...                   unused arguments

background color

When dealing with a ggplot object argument bg will have no effect because ggplot theme is specifying background color, don't forget to define the colors you want in the theme:

```
theme(  
  panel.background = element_rect(fill = "#EFEFEF"),  
  plot.background = element_rect(fill = "wheat"))
```

**See Also**[ph\\_with.dml](#)**Examples**

```

anyplot <- dml(code = barplot(1:5, col = 2:6), bg = "wheat")

library(officer)
doc <- read_pptx()
doc <- add_slide(doc, "Title and Content", "Office Theme")
doc <- ph_with(doc, anyplot, location = ph_location_fullsize())
fileout <- tempfile(fileext = ".pptx")
# fileout <- "vg.pptx"
print(doc, target = fileout)

```

dml\_pptx

*DrawingML graphic device for Microsoft PowerPoint***Description**

Graphics devices for Microsoft PowerPoint DrawingML format.

**Usage**

```

dml_pptx(
  file = "Rplots.dml",
  width = 6,
  height = 6,
  offx = 1,
  offy = 1,
  bg = "white",
  fonts = list(),
  pointsize = 12,
  editable = TRUE,
  id = 1L,
  last_rel_id = 1L,
  raster_prefix = "raster_",
  standalone = TRUE
)

```

**Arguments**

|               |                                                              |
|---------------|--------------------------------------------------------------|
| file          | the file where output will appear.                           |
| height, width | Height and width in inches.                                  |
| offx, offy    | top and left origin of the plot                              |
| bg            | Default background color for the plot (defaults to "white"). |

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| fonts         | Named list of font names to be aliased with fonts installed on your system. If unspecified, the R default families sans, serif, mono and symbol are aliased to the family returned by <code>match_family()</code> .<br>When you use specific fonts, you will need that font installed on your system. This can be check with package <code>gdtools</code> and function <code>gdtools::font_family_exists()</code> .<br>An example: <code>list(sans = "Roboto", serif = "Times", mono = "Courier")</code> . |
| pointsize     | default point size.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| editable      | should vector graphics elements (points, text, etc.) be editable.                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| id            | specifies a unique identifier (integer) within the slide that will contain the DrawingML instructions.                                                                                                                                                                                                                                                                                                                                                                                                     |
| last_rel_id   | specifies the last unique identifier (integer) within relationship file that will be used to reference embedded raster images if any.                                                                                                                                                                                                                                                                                                                                                                      |
| raster_prefix | string value used as prefix for png files produced when raster objects are printed on the graphical device.                                                                                                                                                                                                                                                                                                                                                                                                |
| standalone    | produce a standalone drawingml file? If FALSE, omits xml header and namespaces.                                                                                                                                                                                                                                                                                                                                                                                                                            |

**See Also**[Devices](#)**Examples**

```
dml_pptx(file = tempfile())
plot(1:11, (-5:5)^2, type = "b", main = "Simple Example")
dev.off()
```

dml\_xlsx

*DrawingML graphic device for Microsoft Excel***Description**

Graphics devices for Microsoft Excel DrawingML format.

**Usage**

```
dml_xlsx(
  file = "Rplots.dml",
  width = 6,
  height = 6,
  offx = 1,
  offy = 1,
  bg = "white",
  fonts = list(),
  pointsize = 12,
```

```

    editable = TRUE,
    id = 1L,
    last_rel_id = 1L,
    raster_prefix = "raster_",
    standalone = TRUE
)

```

## Arguments

|                            |                                                                                                                                                                                                                                                                           |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>file</code>          | the file where output will appear.                                                                                                                                                                                                                                        |
| <code>height, width</code> | Height and width in inches.                                                                                                                                                                                                                                               |
| <code>offx, offy</code>    | top and left origin of the plot                                                                                                                                                                                                                                           |
| <code>bg</code>            | Default background color for the plot (defaults to "white").                                                                                                                                                                                                              |
| <code>fonts</code>         | Named list of font names to be aliased with fonts installed on your system. If unspecified, the R default families <code>sans</code> , <code>serif</code> , <code>mono</code> and <code>symbol</code> are aliased to the family returned by <code>match_family()</code> . |
| <code>pointsize</code>     | default point size.                                                                                                                                                                                                                                                       |
| <code>editable</code>      | should vector graphics elements (points, text, etc.) be editable.                                                                                                                                                                                                         |
| <code>id</code>            | specifies a unique identifier (integer) within the slide that will contain the DrawingML instructions.                                                                                                                                                                    |
| <code>last_rel_id</code>   | specifies the last unique identifier (integer) within relationship file that will be used to reference embedded raster images if any.                                                                                                                                     |
| <code>raster_prefix</code> | string value used as prefix for png files produced when raster objects are printed on the graphical device.                                                                                                                                                               |
| <code>standalone</code>    | produce a standalone drawingml file? If FALSE, omits xml header and namespaces.                                                                                                                                                                                           |

## See Also

[Devices](#)

## Examples

```

dml_xlsx(file = tempfile())
plot(1:11, (-5:5)^2, type = "b", main = "Simple Example")
dev.off()

```

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ph\_with.dml

*add a plot output as vector graphics into a PowerPoint object*


---

### Description

produces a vector graphics output from R plot instructions stored in a [dml](#) object and add the result in an rpptx object produced by [read\\_pptx](#).

### Usage

```
## S3 method for class 'dml'
ph_with(x, value, location, ...)
```

### Arguments

|          |                                   |
|----------|-----------------------------------|
| x        | a pptx device                     |
| value    | <a href="#">dml</a> object        |
| location | a location for a placeholder.     |
| ...      | Arguments to be passed to methods |

### Examples

```
anyplot <- dml(code = barplot(1:5, col = 2:6), bg = "wheat")

library(officer)
doc <- read_pptx()
doc <- add_slide(doc, "Title and Content", "Office Theme")
doc <- ph_with(doc, anyplot, location = ph_location_fullsize())

fileout <- tempfile(fileext = ".pptx")
print(doc, target = fileout)
```

---

xl\_add\_vg

*add a plot output as vector graphics into an Excel object*


---

### Description

produces a vector graphics output from R plot instructions and add the result in an Excel sheet. by [read\\_xlsx](#).

### Usage

```
xl_add_vg(x, sheet, code, left, top, width, height, ...)
```

**Arguments**

|                            |                                                                          |
|----------------------------|--------------------------------------------------------------------------|
| <code>x</code>             | an <code>rxlsx</code> object produced by <code>officer::read_xlsx</code> |
| <code>sheet</code>         | sheet label/name                                                         |
| <code>code</code>          | plot instructions                                                        |
| <code>left, top</code>     | left and top origin of the plot on the slide in inches.                  |
| <code>height, width</code> | Height and width in inches.                                              |
| <code>...</code>           | arguments passed on to <a href="#">dml_xlsx</a> .                        |

**Examples**

```
library(officer)
my_ws <- read_xlsx()
my_ws <- xl_add_vg(my_ws,
  sheet = "Feuil1",
  code = barplot(1:5, col = 2:6), width = 6, height = 6, left = 1, top = 2
)
fileout <- tempfile(fileext = ".xlsx")
print(my_ws, target = fileout)
```

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