

Package: lofifonts (via r-universe)

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Type Package

Title Text Rendering with Bitmap and Vector Fonts

Version 0.1.0.9000

Maintainer Mike Cheng <mikefc@coolbutuseless.com>

Description Alternate font rendering is useful when rendering to novel graphics outputs where modern font rendering is not available or not appropriate. Bitmap and vector fonts allow for bespoke rendering using pixel coordinates and line drawing. A selection of fonts is included and all can be rendered to a matrix of pixel locations or returned as pixel coordinates and collections of stroke endpoints.

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Encoding UTF-8

RoxygenNote 7.3.2

Copyright The included 'spleen' font is BSD licensed and Copyright (c) 2018-2024, Frederic Cambus. The included 'Tamzen' font is free to distribute and Copyright 2011 Suraj N. Kurapati (it is based upon the 'Tamsyn' font which is also free to distribute Copyright 2010 Scott Fial) The included 'unifont' font is SIL Open Font Licensed, and is Copyright the GNU unifont authors. The included 'gridfont' is MIT licensed is Copyright (c) 2019 Anders Hoff. See 'COPYRIGHTS' file for more details.

URL <https://github.com/coolbutuseless/lofifonts>

BugReports <https://github.com/coolbutuseless/lofifonts/issues>

Depends R (>= 2.10)

LazyData true

Suggests knitr, rmarkdown, ggplot2

VignetteBuilder knitr

Repository <https://coolbutuseless.r-universe.dev>

RemoteUrl <https://github.com/coolbutuseless/lofifonts>

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bitmap_text_coords	<i>Create a data.frame of pixel coordinate information of the rendered text</i>
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Description

Create a data.frame of pixel coordinate information of the rendered text

Usage

```
bitmap_text_coords(text, font = "unifont", line_height = NULL, missing = NULL)
```

Arguments

text	Single text string. Can include carriage returns.
font	Name of bitmap font. One of the following: <ul style="list-style-type: none"> spleen: "spleen-12x24", "spleen-16x32", "spleen-32x64", "spleen-5x8", "spleen-6x12", "spleen-8x16" tamzen: "Tamzen10x20b", "Tamzen10x20r", "Tamzen5x9b", "Tamzen5x9r", "Tamzen6x12b", "Tamzen6x12r", "Tamzen7x13b", "Tamzen7x13r", "Tamzen7x14b", "Tamzen7x14r", "Tamzen8x15b", "Tamzen8x15r", "Tamzen8x16b", "Tamzen8x16r" "unifont" (the default) unscii: "unscii-8", "unscii-8-thin"
line_height	Integer value for the vertical distance between multiple lines of text. Use this to override the font's lineheight. Default: NULL means to use the font's built-in lineheight.
missing	Codepoint (integer) to use if glyph not found in font. Default: NULL means to use the default specified by the font internally. Otherwise it will default to the codepoint for '?'

Value

data.frame of coordinate information

char_idx The index of the character within the provided text string

codepoint Unicode codepoint (integer)

x Pixel coordinate x value for display

y Pixel coordinate y value for display

line Line number within input text where this character appears

x0 Original untransformed x-coordinate

y0 Original untransformed y-coordinate

See Also

Other bitmap text functions: [bitmap_text_matrix\(\)](#), [bitmap_text_raster\(\)](#)

Examples

```
bitmap_text_coords('Hi')
```

bitmap_text_matrix *Create a binary matrix of the rendered text*

Description

Create a binary matrix of the rendered text

Usage

```
bitmap_text_matrix(
  text,
  font = "unifont",
  line_height = NULL,
  scale = 1,
  missing = NULL
)
```

Arguments

text	Single text string. Can include carriage returns.
font	Name of bitmap font. One of the following: <ul style="list-style-type: none"> spleen: "spleen-12x24", "spleen-16x32", "spleen-32x64", "spleen-5x8", "spleen-6x12", "spleen-8x16" tamzen: "Tamzen10x20b", "Tamzen10x20r", "Tamzen5x9b", "Tamzen5x9r", "Tamzen6x12b", "Tamzen6x12r", "Tamzen7x13b", "Tamzen7x13r", "Tamzen7x14b", "Tamzen7x14r", "Tamzen8x15b", "Tamzen8x15r", "Tamzen8x16b", "Tamzen8x16r"

	<ul style="list-style-type: none"> • "unifont" (the default) • unscii: "unscii-8", "unscii-8-thin"
line_height	Integer value for the vertical distance between multiple lines of text. Use this to override the font's lineheight. Default: NULL means to use the font's built-in lineheight.
scale	Integer size scale factor. Default: 1. Must be an integer value ≥ 1 . Scale up the matrix or raster result by this factor
missing	Codepoint (integer) to use if glyph not found in font. Default: NULL means to use the default specified by the font internally. Otherwise it will default to the codepoint for '?'

Value

Binary matrix representation of the rendered text

See Also

Other bitmap text functions: [bitmap_text_coords\(\)](#), [bitmap_text_raster\(\)](#)

Examples

```
bitmap_text_matrix('Hi')
```

bitmap_text_raster *Create a raster image of the rendered text*

Description

Create a raster image of the rendered text

Usage

```
bitmap_text_raster(
    text,
    font = "unifont",
    line_height = NULL,
    scale = 1,
    missing = NULL
)
```

Arguments

text	Single text string. Can include carriage returns.
font	Name of bitmap font. One of the following: <ul style="list-style-type: none"> • spleen: "spleen-12x24", "spleen-16x32", "spleen-32x64", "spleen-5x8", "spleen-6x12", "spleen-8x16"

	<ul style="list-style-type: none"> • tamzen: "Tamzen10x20b", "Tamzen10x20r", "Tamzen5x9b", "Tamzen5x9r", "Tamzen6x12b", "Tamzen6x12r", "Tamzen7x13b", "Tamzen7x13r", "Tamzen7x14b", "Tamzen7x14r", "Tamzen8x15b", "Tamzen8x15r", "Tamzen8x16b", "Tamzen8x16r" • "unifont" (the default) • unscii: "unscii-8", "unscii-8-thin"
line_height	Integer value for the vertical distance between multiple lines of text. Use this to override the font's lineheight. Default: NULL means to use the font's built-in lineheight.
scale	Integer size scale factor. Default: 1. Must be an integer value ≥ 1 . Scale up the matrix or raster result by this factor
missing	Codepoint (integer) to use if glyph not found in font. Default: NULL means to use the default specified by the font internally. Otherwise it will default to the codepoint for '?'

Value

Raster image representation of the rendered text

See Also

Other bitmap text functions: [bitmap_text_coords\(\)](#), [bitmap_text_matrix\(\)](#)

Examples

```
ras <- bitmap_text_raster('Hi')
plot(ras, interpolate = FALSE)
```

font_info

Font information

Description

Currently on includes font names and unicode codepoints available within each font

Usage

```
font_info
```

Format

An object of class `list` of length 2.

font_names	<i>Font names</i>
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Description

Font names

Usage

font_names

Format

An object of class list of length 2.

vector_text_coords	<i>Create data.frame of glyph information for the given text.</i>
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Description

Text input can contain multiple lines separated by carriage returns

Usage

```
vector_text_coords(
  text,
  font = c("gridfont", "gridfont_smooth", "arcade"),
  dx = 0,
  dy = 0,
  missing = utf8ToInt("?"),
  line_height = NULL
)
```

Arguments

text	Single text string. Can include carriage returns.
font	Name of vector font. One of c("arcade", "gridfont", "gridfont_smooth")
dx	Additional character spacing in the horizontal direction. Default: 0
dy	Additional character spacing in the vertical direction. Default: 0
missing	Codepoint to use if glyph not available in font. default: Codepoint for '?'
line_height	line height

Value

data.frame of stroke information

char_idx The index of the character within the provided text string

codepoint Unicode codepoint (integer)

stroke_idx Index of the stroke within each character

point_idx Index of the point within each stroke

x Pixel coordinate x value for display

y Pixel coordinate y value for display

width Width of vector character

height Height of vector character

x0 Original untransformed x-coordinate

y0 Original untransformed y-coordinate

line Line number within input text where this character appears

See Also

Other vector text functions: [vector_text_matrix\(\)](#), [vector_text_raster\(\)](#)

Examples

```
vector_text_coords('Hi')
```

vector_text_matrix *Create a binary matrix of the rendered text*

Description

Create a binary matrix of the rendered text

Usage

```
vector_text_matrix(  
  text,  
  font = c("gridfont", "gridfont_smooth", "arcade"),  
  scale = 1,  
  dx = NULL,  
  dy = NULL,  
  missing = utf8ToInt("?")  
)
```

Arguments

text	Single text string. Can include carriage returns.
font	Name of vector font. One of c("arcade", "gridfont", "gridfont_smooth")
scale	Scale factor for text rendering. Numeric value greater than zero. Default: 1
dx	Additional character spacing in the horizontal direction. Default: 0
dy	Additional character spacing in the vertical direction. Default: 0
missing	Codepoint to use if glyph not available in font. default: Codepoint for '?'

Value

Binary matrix rendering of the font

See Also

Other vector text functions: [vector_text_coords\(\)](#), [vector_text_raster\(\)](#)

Examples

```
vector_text_matrix("Hi")
```

`vector_text_raster` *Create a raster image of the rendered text*

Description

Create a raster image of the rendered text

Usage

```
vector_text_raster(
  text,
  font = c("gridfont", "gridfont_smooth", "arcade"),
  scale = 10,
  dx = NULL,
  dy = NULL,
  missing = utf8ToInt("?")
)
```

Arguments

text	Single text string. Can include carriage returns.
font	Name of vector font. One of c("arcade", "gridfont", "gridfont_smooth")
scale	Scale factor for text rendering. Numeric value greater than zero. Default: 1
dx	Additional character spacing in the horizontal direction. Default: 0
dy	Additional character spacing in the vertical direction. Default: 0
missing	Codepoint to use if glyph not available in font. default: Codepoint for '?'

Value

Raster image of rendered text

See Also

Other vector text functions: [vector_text_coords\(\)](#), [vector_text_matrix\(\)](#)

Examples

```
ras <- vector_text_raster("Hi")  
plot(ras, interpolate = FALSE)
```

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