

Package ‘rprintf’

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Type Package

Title Adaptive Builder for Formatted Strings

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Description Provides a set of functions to facilitate building formatted strings under various replacement rules: C-style formatting, variable-based formatting, and number-based formatting. C-style formatting is basically identical to built-in function 'sprintf'. Variable-based formatting allows users to put variable names in a formatted string which will be replaced by variable values. Number-based formatting allows users to use index numbers to represent the corresponding argument value to appear in the string.

Depends R (>= 2.15)

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Imports stringi

Suggests testthat, knitr

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URL <http://renkun.me/rprintf>, <https://github.com/renkun-ken/rprintf>

BugReports <https://github.com/renkun-ken/rprintf/issues>

ByteCompile TRUE

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rprintf

Build a character vector or list with adaptive string formatting

Description

The `rprintf` function checks the given character vector or list and applies appropriate formatters that transform it from generic patterns to specific texts with variables and indices as placeholders replaced by a given set of values in correct formats.

Usage

```
rprintf(x, ...)
```

Arguments

| | |
|------------------|-----------------------------------------------------------|
| <code>x</code> | The character vector or list to be transformed |
| <code>...</code> | The arguments that specify the set of values to be placed |

Examples

```
## Not run:
#' # Format a single-entry character vector with sprintf mechanism
rprintf('Hello, %s', 'world')
rprintf('%s (%d years old)', 'Ken', 24)
rprintf('He is %d but has a height of %.1fcm', 18, 190)

# Format a single-entry character vector with variable mechanism
rprintf('Hello, $name', name='world')
rprintf('$name ($age years old)', name='Ken', age=24)
rprintf('He is $age but has a height of $height:.2fcm', age=18, height=190)
rprintf('$a, $b:.1f, $c:+.2f, $b, $a:.0f', a=1.56, b=2.34, c=3.78)

# Format a single-entry character vector with numbering mechanism
rprintf('Hello, {1}', 'world')
rprintf('{1} ({2} years old)', 'Ken', 24)
rprintf('He is {1} but has a height of {2:.2f}cm', 18, 190)
rprintf('{1}, {2:.1f}, {3:+.2f}, {2}, {1:.0f}', 1.56, 2.34, 3.78)
rprintf('{2},{1}', 'x', 'y')

# This function also works for character vectors and lists.
rprintf(c('s:%d', '$name:$age', '{1}:{2}'), name='Ken', age=24)
rprintf(c(a='s:%d', b='$name:$age', c='{1}:{2}'), name='Ken', age=24)
rprintf(list('s:%d', '$name:$age', '{1}:{2}'), name='Ken', age=24)
rprintf(list(a='s:%d', b='$name:$age', c='{1}:{2}'), name='Ken', age=24)

# It also works with list argument for named variables.
p <- list(name='Ken', age=24)
rprintf('name: $name, age: $age', p)
rprintf('name: {1}, age: {2}', p)
```

Note that when the list of arguments are given names,
the variable names in format string should be modified.

```
rprintf('name: $arg.name, age: $arg.age', arg = p)
```

```
## End(Not run)
```

rprintn *Build a character vector or list with number-based string formatting*

Description

The rprintn function applies number-based formatter to transform the given character vector to specific texts with numbers replaced by a given set of values in correct formats.

Usage

```
rprintn(x, ...)
```

Arguments

| | |
|-----|-----------------------------------------------------------|
| x | The character vector or list to be transformed |
| ... | The arguments that specify the set of values to be placed |

Examples

```
## Not run:

# Format a single-entry character vector with numbering mechanism
rprintf('Hello, {1}', 'world')
rprintf('{1} ({2} years old)', 'Ken', 24)
rprintf('He is {1} but has a height of {2:.2f}cm', 18, 190)
rprintf('{1}, {2:.1f}, {3:+.2f}, {2}, {1:.0f}', 1.56, 2.34, 3.78)
rprintf('{2},{1}', 'x', 'y')

## End(Not run)
```

rprintv *Build a character vector or list with variable-based string formatting*

Description

The rprintv function applies variable-based formatter to transform the given character vector to specific texts with named variables replaced by a given set of values in correct formats.

Usage

```
rprintv(x, ...)
```

Arguments

| | |
|-----|-----------------------------------------------------------|
| x | The character vector or list to be transformed |
| ... | The arguments that specify the set of values to be placed |

Examples

```
## Not run:  
  
# Format a single-entry character vector with variable mechanism  
rprintf('Hello, $name', name='world')  
rprintf('$name ($age years old)', name='Ken', age=24)  
rprintf('He is $age but has a height of $height:.2fcm', age=18, height=190)  
rprintf('$a, $b:.1f, $c:+.2f, $b, $a:.0f', a=1.56, b=2.34, c=3.78)  
  
## End(Not run)
```

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