Package 'verhoeff'

May 8, 2026

Type Package

Title Implementation of the 'Verhoeff' Check Digit Algorithm

Version 0.4.0

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Description An implementation of the 'Verhoeff' algorithm for calculating check digits (Verhoeff, J. (1969) <doi:10.1002/zamm.19710510323>). Functions are provided to calculate a check digit given an input number, calculate and append a check digit to an input number, and validate that a check digit is correct given an input number.

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Encoding UTF-8

LazyData true

RoxygenNote 7.1.1

Suggests testthat, dplyr

NeedsCompilation no

Repository CRAN

Date/Publication 2021-01-26 12:20:02 UTC

Contents

calculate_digit *calculate_digit*

Description

Calculates a single Verhoeff Check Digit. This function is exported, but it would usually be called from one of the ‘verhoeff_*‘ wrapper functions

Usage

```
calculate_digit(number, d5, d5_p, inv_v)
```

Arguments

number	A number you want to calculate the check digit for
d5	The verhoeff d5 matrix. Retrievable with create_verhoeff_matrices()$d5
d5_p	The verhoeff p matrix. Retrievable with create_verhoeff_matrices()$d5_p
inv_v	The verhoeff inv matrix. Retrievable with create_verhoeff_matrices()$inv_v

Value

A single integer

Examples

```
dat <- verhoeff::create_verhoeff_matrices()
calculate_digit(5, dat$d5, dat$d5_p, dat$inv_v)
```

prepare_number *prepare_number*

Description

Takes a number and prepares it for input to the verhoeff algorithim by reversing it

Usage

```
prepare_number(number)
```

Arguments

number	A single number that can be coerced to numeric

Value

A numeric vector of length equal to number of digits in the input

Examples

```
prepare_number(1234)
```

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verhoeff_append *verhoeff_append*

Description

Return a number with its check digit appended

Usage

```
verhoeff_append(number, sep = "-")
```

Arguments

number	The number to calculate a check digit for
sep	A separator for the two numbers

Value

Numeric vector of length equal to its input

Examples

```
verhoeff::verhoeff_append(123)
```

---

verhoeff_calculate *verhoeff_calculate*

Description

verhoeff_calculate

Usage

```
verhoeff_calculate(number, as_list = FALSE)
```

Arguments

number	The vector of numbers you want a check digit for
as_list	Return the results as a list? Defaults to false

Value

Vector or list of check digits

Examples

```
verhoeff_calculate(1234)
```

`verhoeff_validate` *verhoeff_validate*

Description

Enter a number, and an existing check digit. Function will return true if the supplied check digit is a correct verhoeff check digit for the given number

Usage

```
verhoeff_validate(number, check_digit)
```

Arguments

`number`	A numerical input
`check_digit`	An existing check digit for the input number

Value

Logical vector

Examples

```
verhoeff::verhoeff_validate(123, 3)
```

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