

Package ‘RcppUUID’

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Type Package

Title Generating Universally Unique Identifiers

Version 1.2.0

Date 2025-02-12

Description Using the efficient implementation in the Boost C++ library, functions are provided to generate vectors of 'Universally Unique Identifiers (UUID)' from R supporting random (version 4), name (version 5) and time (version 7) 'UUIDs'. The initial repository was at <<https://gitlab.com/artemklevtsov/rcppuuid>>.

URL <https://github.com/eddelbuettel/rcppuuid>

BugReports <https://github.com/eddelbuettel/rcppuuid/issues>

License GPL (>= 2)

Depends R (>= 3.1.0)

Imports Rcpp

Suggests tinytest, uuid, microbenchmark

LinkingTo Rcpp, BH (>= 1.87.0-1)

Encoding UTF-8

NeedsCompilation yes

RoxygenNote 7.3.2

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Contents

RcppUUID	2
uuid_generate_name	2

uuid_generate_nil	3
uuid_generate_random	4
uuid_generate_time	4
uuid_validate	5

Index	6
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RcppUUID	<i>Generating Universally Unique Identifiers</i>
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Description

Provides functions to generating a vector of Universally Unique Identifiers (UUID) using the implementation from the Boost C++ library. Supports random (version 4), name (version 5) and time-based (version 7) UUIDs. UUIDs generation is parallelized by OpenMP.

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See Also

Useful links:

- <https://github.com/eddelbuettel/rcppuuid>
- Report bugs at <https://github.com/eddelbuettel/rcppuuid/issues>

uuid_generate_name	<i>Generate UUIDs Version 5</i>
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Description

Function generates name-based uuid is derived from content in a namespace. A uuid with identical content shall yield the same uuid. Hashing algorithm is SHA1.

Usage

```
uuid_generate_name(x, ns = "x500dn")
```

Arguments

x	Character vector.
ns	Namespace string. Allowed values: dns, url, oid, x500dn.

Value

Character vector with UUIDs.

Note

This function generates valid uuids for the NA and empty strings.

References

https://www.boost.org/doc/libs/1_72_0/libs/uuid/doc/uuid.html#Name%20Generator

Examples

```
# generate name UUIDs
uuid_generate_name(c("one", "two"))
```

uuid_generate_nil	<i>Generates Nil UUIDs</i>
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Description

Function generates nil uuids.

Usage

```
uuid_generate_nil(n = 1L)
```

Arguments

n Number of generated UUIDs.

Value

Character vector with UUIDs.

References

https://www.boost.org/doc/libs/1_72_0/libs/uuid/doc/uuid.html#Nil%20Generator

Examples

```
# generate nil UUIDs
uuid_generate_nil(2)
```

uuid_generate_random *Generate UUIDs Version 4*

Description

Function generates uuids using operating system provided entropy.

Usage

```
uuid_generate_random(n = 1L)
```

Arguments

n Number of generated UUIDs.

Value

Character vector with UUIDs.

References

https://www.boost.org/doc/libs/1_72_0/libs/uuid/doc/uuid.html#Random%20Generator

Examples

```
# generate random UUIDs
uuid_generate_random(2)
```

uuid_generate_time *Generate UUIDs Version 7*

Description

This function generates time-based uuids using operating system provided entropy. Note that this requires Boost 1.86 or later.

Usage

```
uuid_generate_time(n = 1L)
```

Arguments

n Number of generated UUIDs.

Value

Character vector with UUIDs generated under specification v7.

References

<https://www.boost.org/doc/libs/release/libs/uuid/>

Examples

```
# generate random UUIDs
uuid_generate_time(2)
```

uuid_validate	<i>Validate UUIDs</i>
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Description

Function validates uuids.

Usage

```
uuid_validate(x)
```

Arguments

x Character vector.

Value

Logical vector.

Examples

```
# validate UUIDs
uuid_validate(uuid_generate_random(2))
uuid_validate(uuid_generate_nil(2))
uuid_validate(uuid_generate_name(c("one", "two")))
uuid_validate(c("a", ""))
```

Index

RcppUUID, [2](#)
RcppUUID-package (RcppUUID), [2](#)

uuid_generate_name, [2](#)
uuid_generate_nil, [3](#)
uuid_generate_random, [4](#)
uuid_generate_time, [4](#)
uuid_validate, [5](#)