Package 'random'

October 14, 2022

Version 0.2.6

Date 2017-02-05

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Title True Random Numbers using RANDOM.ORG

Description The true random number service provided by the RANDOM.ORG
website created by Mads Haahr samples atmospheric noise via radio tuned to
an unused broadcasting frequency together with a skew correction algorithm
due to John von Neumann. More background is available in the included
vignette based on an essay by Mads Haahr. In its current form, the package
offers functions to retrieve random integers, randomized sequences and
random strings.

Depends R (>= 2.8.0)

Imports curl, utils

License GPL (>= 2)

URL <https://www.random.org>

NeedsCompilation no

Repository CRAN

Date/Publication 2017-02-05 22:46:25

R topics documented:

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random   *True random numbers from random.org*

Description

The random package provides several functions that access the true random number service at http://random.org.

randomNumber retrieves random integers with duplicates, randomSequence retrieves random sequences without duplicates and randomStrings retrieves strings.

randomQuota returns the number of available retrievals, and quotaCheck does a simple binary comparison of remaining numbers under the quota.

Usage

```
randomNumbers(n=100, min=1, max=100, col=5, base=10, check=TRUE)
randomSequence(min=1, max=20, col=1, check=TRUE)
randomStrings(n=10, len=5, digits=TRUE, upperalpha=TRUE,
              loweralpha=TRUE, unique=TRUE, check=TRUE)
randomQuota()
quotaCheck()
```

Arguments

n	The number of random integers, or bytes, to be retrieved.
min	The minimum value for the returned numbers.
max	The maximum value for the returned numbers.
col	The number of columns for the return object.
base	The base for the random numbers: one of 2, 8, 10 or 16.
len	The length of strings returned by randomStrings().
digits	Select whether digits are part of random strings.
upperalpha	Select whether uppercase characters part of random strings.
loweralpha	Select whether lowercase characters part of random strings.
unique	Select whether random strings must be unique.
check	Select whether quota at server should be checked first.

Details

The http://random.org services uses atmospheric noise sample via a radio tuned to an unused broadcast frequency together with a skew correction originally due to John von Neumann. Please see the included vignette for more details.

Value

Each function returns a `matrix`. For `randomNumbers`, it contains `col` columns of a total of `n` integers between `min` and `max`, possibly containing duplicates. For `randomSequence`, it contains the shuffled sequence denoted by `min` and `max`. For `randomStrings`, `n` strings of length `len` are returned.

`randomQuota` returns the number of bits remaining for retrieval at the given day under the currently used IP address. `quotaCheck` is a simple convenience wrapper which tests whether the return from `randomBufferStatus()` is a positive number.

Author(s)

Dirk Eddelbuettel <edd@debian.org> for the R interface; Mads Haahr for `random.org`.

References

The `random.org` website at <http://www.random.org>. Also see the included vignette for further references.

Examples

```
## Cannot run these as we may not have an internet connection
## Not run:
  rn <- randomNumbers(100, 1, 100, 5)
  rs <- randomSequence(1, 20)

## End(Not run)
```

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