Package: random (via r-universe)

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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, https://github.com/eddelbuettel/random, https://dirk.eddelbuettel.com/code/random.html

BugReports https://github.com/eddelbuettel/random/issues

Repository https://eddelbuettel.r-universe.dev

RemoteUrl https://github.com/eddelbuettel/random

RemoteRef HEAD

RemoteSha 0e175ff674d99ac5a279b82e858cfe6af93f9387

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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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