Package ‘random’

February 5, 2017

Version 0.2.6
Date 2017-02-05
Author Dirk Eddelbuettel <edd@debian.org>
Maintainer Dirk Eddelbuettel <edd@debian.org>
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:

random ................................................................. 2

Index 4
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](http://www.random.org). Also see the included vignette for further references.

**Examples**

```r
## 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)
```
Index

*Topic misc
  random, 2

quotaCheck (random), 2
random, 2
randomNumbers (random), 2
randomQuota (random), 2
randomSequence (random), 2
randomStrings (random), 2