Package ‘fastdigest’

August 29, 2016

**Version** 0.6-3

**Title** Fast, Low Memory-Footprint Digests of R Objects

**Description** Provides an R interface to Bob Jenkin's streaming, non-cryptographic 'SpookyHash' hash algorithm for use in digest-based comparisons of R objects. 'fastdigest' plugs directly into R's internal serialization machinery, allowing digests of all R objects the serialize() function supports, including reference-style objects via custom hooks. Speed is high and scales linearly by object size; memory usage is constant and negligible.

**Author** Gabriel Becker, Bob Jenkins (SpookyHash algorithm and C++ implementation)

**Suggests** RUnit

**Maintainer** Gabriel Becker <becker.gabriel@gene.com>

**SystemRequirements** C++11

**License** Artistic-2.0

**NeedsCompilation** yes

**Repository** CRAN

**Date/Publication** 2015-10-08 20:13:41

**R topics documented:**

fastdigest ................................. 1

Index 3

---

fastdigest  Fast, memory constant hashing of R objects

**Description**

Fast, memory constant hashing of R objects
Usage

fastdigest(obj, ref_serializer = NULL)

Arguments

obj
  The object to generate a hash digest for
ref_serializer  (optional) A serializer for reference-style objects, see serialize

Details

obj will be hashed using R’s internal serialization logic with a custom target which applies applying Jenkins’ SpookyHash (v2) in a streaming fashion. This avoids (ever) copying the data out of the R object itself, providing both speed and memory constancy.

It also guarantees that the “representation” of the R object being hashed is the same as the serialized version would be, if created.

Author(s)

Gabriel Becker

References


See Also

serialize

Examples

x = rnorm(100)
h = fastdigest(x)
y = x
  ## force dup
y[100] = 1
h2 = fastdigest(y)
idenrical(h, h2) #FALSE
y[100] = x[100]
h3 = fastdigest(y)
idenical(h, h3) # TRUE
Index

fastdigest, 1
serialize, 2