Package ‘histry’

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Type Package
Title Enhanced Command History Tracking for R Sessions and Dynamic Documents
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Copyright Genentech Inc
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Description Automatically tracks and makes programmatically available code evaluation history in R sessions and dynamic documents.
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Suggests rmarkdown, trackr, knitr
Imports fastdigest, evaluate, roprov, CodeDepends
VignetteBuilder knitr
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         'saveload.R' 'prov.R'
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R topics documented:

combineHistry ................................................................. 2
exprs ......................................................................... 3
HistoryData ................................................................. 4
HistoryTracker ............................................................ 4
historyTracker ........................................................... 5
histropts ................................................................. 5
combineHistory

Combine History data from two sources/records

Description

Combines the underlying history data from two representations.

Usage

combineHistory(x, y, before = FALSE)

## S4 method for signature 'HistoryData'
combineHistory(x, y, before = FALSE)

## S4 method for signature 'VirtHistoryTracker'
combineHistory(x, y, before = FALSE)

Arguments

x: An object representing captured history
y: An object representing captured history
before: logical. Should the data from y be placed before the data from x in the combined history. Defaults to FALSE

Value

The same class of object as x. I.e., if x is a HistoryTracker object, a HistoryTracker (of the same subclass) is returned. If X is a HistoryData object, that class of object is returned.

Note

HistoryTracker objects are reference classes, meaning that if x is a HistoryTracker the changes will be reflected in all variables representing that trackr.
**Histry object accessors**

**Description**

Getters and setters for histry-related objects

**Usage**

```r
exprs(obj)
```

## S4 method for signature 'HistoryData'

```r
exprs(obj)
```

## S4 method for signature 'VirtHistoryTracker'

```r
eprs(obj) <- value
```

## S4 replacement method for signature 'HistoryData'

```r
eprs(obj) <- value
```

## S4 replacement method for signature 'VirtHistoryTracker'

```r
eprs(obj) <- value
```

```r
ret_classes(obj)
```

## S4 method for signature 'HistoryData'

```r
ret_classes(obj)
```

## S4 method for signature 'VirtHistoryTracker'

```r
ret_classes(obj) <- value
```

## S4 replacement method for signature 'HistoryData'

```r
ret_classes(obj) <- value
```

## S4 replacement method for signature 'VirtHistoryTracker'

```r
ret_classes(obj) <- value
```

```r
hashes(obj)
```

## S4 method for signature 'HistoryData'

```r
hashes(obj)
```

## S4 method for signature 'VirtHistoryTracker'

```r
hashes(obj)
```
hashes(obj)
hashes(obj) <- value

## S4 replacement method for signature 'HistoryData'
hashes(obj) <- value

## S4 replacement method for signature 'VirtHistoryTracker'
hashes(obj) <- value

hData(obj)

## S4 method for signature 'HistoryData'
hData(obj)

## S4 method for signature 'VirtHistoryTracker'
hData(obj)

hData(obj) <- value

## S4 replacement method for signature 'HistoryData'
hData(obj) <- value

## S4 replacement method for signature 'VirtHistoryTracker'
hData(obj) <- value

Arguments

<table>
<thead>
<tr>
<th>obj</th>
<th>The object to access components of.</th>
</tr>
</thead>
<tbody>
<tr>
<td>value</td>
<td>The new value for the field.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HistoryData</th>
<th>HistoryData</th>
</tr>
</thead>
</table>

Description

A (non-reference) class representing the known history state

<table>
<thead>
<tr>
<th>HistoryTracker</th>
<th>A reference class for tracking code history</th>
</tr>
</thead>
</table>

Description

These classes implement history tracking in various contexts
**historyTracker**

_Construct and activate a HistoryTracker object_

**Description**

Constructors for the HistoryTracker family of objects.

**Usage**

```r
historyTracker(id = "history_tracker")

knitrTracker()
```

**Arguments**

- **id** character. The id of the taskback

**Value**

A HistoryTracker object

**Note**

Generally end-users should never need to call these functions directly. Simply loading the history package should provide them with history tracking.

**histropts**

**histry**

**Description**

These functions return the set of successfully evaluated expressions (histry) and the HistoryTracker object (histry_tracker) for the current context.

**Usage**

```r
histropts()

histry()

histry_tracker()

histry_addinfo(...)

histry_setinknitr(val)
```
Arguments

... Info to be added

val Logical value indicating whether the evaluation context is currently in a knitr/rmarkdown.

Details

This means that when called during a knitr-based weaving process, the expressions will be those previously evaluated during that process, and the tracker will be a KnitrHistoryTracker. When called outside of the weaving context, the top-level-expression history and history tracker will be returned, respectively.

Value

A list of R code expressions for history and a HistoryTracker object for history_tracker

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**histryProvDF**

*Generate ProvStoreDF from histry*

Description

Generates a tabular 'provenance store' from the history of evaluated expressions captured by histry

Usage

```
histryProvDF(tracker = histry_tracker())
```

Arguments

- **tracker** The HistoryTracker object to mine for the prov table information.

Value

- a ProvStoreDF object
knitrtracer

knitr history tracking These functions are exported due to the vagaries of how tracing functions works in R. Knitr history support is now turned on when the histry package is loaded; They should never be called directly by an end user.

Description

evaltracer

Usage

knitrtracer(on, record = FALSE)

evaltracer(on = TRUE, record = FALSE)

Arguments

on logical. Should tracking be turned on (TRUE) or off (FALSE)

record logical. Should visibly printed results within the weaving process be recorded (if trackr is available).

savehistry Save and load Histry data

Description

Save and load Histry data. Experimental.

Usage

savehistry(file = "./histry.rds", append = TRUE, trackr = histry_tracker())

loadhistry(file = "./histry.rds", trackr = histry_tracker())

Arguments

file character. The file to save your history within. When loading, assumed to be an RDS file. when saving, written as an RDS file.

append logical. Should any history already saved to file be retained when the new history is saved. defaults to TRUE

trackr a history tracker object
Index

combineHistory, 2
combineHistory, HistoryData-method (combineHistory), 2
combineHistory, VirtHistoryTracker-method (combineHistory), 2
evaltracer (knitrtracer), 7
exprs, 3
exprs, HistoryData (exprs), 3
eexprs, HistoryData-method (exprs), 3
exprs, VirtHistoryTracker (exprs), 3
exprs, VirtHistoryTracker-method (exprs), 3
eexprs<-, (exprs), 3
eexprs<-, HistoryData (exprs), 3
exprs<-, HistoryData-method (exprs), 3
exprs<-, VirtHistoryTracker (exprs), 3
eexprs<-, VirtHistoryTracker-method (exprs), 3
h_tracker (HistoryTracker), 4
hashes (exprs), 3
hashes, HistoryData (exprs), 3
hashes, HistoryData-method (exprs), 3
hashes, VirtHistoryTracker (exprs), 3
hashes, VirtHistoryTracker-method (exprs), 3
hashes<-, (exprs), 3
hashes<-, HistoryData (exprs), 3
hashes<-, HistoryData-method (exprs), 3
hashes<-, VirtHistoryTracker (exprs), 3
hashes<-, VirtHistoryTracker-method (exprs), 3
hData (exprs), 3
hData, HistoryData (exprs), 3
hData, HistoryData-method (exprs), 3
hData, VirtHistoryTracker (exprs), 3
hData, VirtHistoryTracker-method (exprs), 3
hData<-, (exprs), 3
hData<-, HistoryData (exprs), 3
hData<-, VirtHistoryTracker (exprs), 3
hData<-, VirtHistoryTracker-method (exprs), 3
HistoryData, 4
HistoryData-class (HistoryData), 4
HistoryTracker, 4
historyTracker, 5
historyTracker-class (HistoryTracker), 4
histropts, 5
histry (histropts), 5
histry_addinfo (histropts), 5
histry_setinknitr (histropts), 5
histry_tracker (histropts), 5
histryProvDF, 6
kh_tracker (HistoryTracker), 4
knitr_tracker (historyTracker), 5
KnitrHistoryTracker (HistoryTracker), 4
KnitrHistoryTracker-class (HistoryTracker), 4
knitrtracer, 7
knitrTracker (historyTracker), 5
loadHistory (saveHistory), 7
ret_classes (exprs), 3
ret_classes, HistoryData (exprs), 3
ret_classes, HistoryData-method (exprs), 3
ret_classes, VirtHistoryTracker (exprs), 3
ret_classes, VirtHistoryTracker-method (exprs), 3
ret_classes<-, (exprs), 3
ret_classes<-, HistoryData (exprs), 3
ret_classes<-, HistoryData-method (exprs), 3
INDEX

ret_classes<-, VirtHistoryTracker
(exprs), 3
ret_classes<-, VirtHistoryTracker-method
(exprs), 3
saveHistory, 7

vh_tracker (HistoryTracker), 4
VirtHistoryTracker-class
(HistoryTracker), 4