

Package ‘histry’

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Type Package

Title Enhanced Command History Tracking for R Sessions and Dynamic Documents

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Description Automatically tracks and makes programmatically available code evaluation history in R sessions and dynamic documents.

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Depends methods

Suggests rmarkdown, trackr, knitr

Imports fastdigest, evaluate, roprov, CodeDepends

VignetteBuilder knitr

Collate '00first.R' 'allClasses.R' 'history.R' 'tracking.R' 'zzz.R' 'saveload.R' 'prov.R'

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combineHistory	<i>Combine History data from two sources/records</i>
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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.

exprs	<i>History object accessors</i>
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Description

Getters and setters for history-related objects

Usage

```
exprs(obj)

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

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

exprs(obj) <- value

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

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

ret_classes(obj)

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

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

ret_classes(obj) <- value

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

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

hashes(obj)

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

## S4 method for signature 'VirtHistoryTracker'
```

```

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

obj	The object to access components of.
value	The new value for the field.

HistoryData	<i>HistoryData</i>
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Description

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

HistoryTracker	<i>A reference class for tracking code history</i>
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Description

These classes implement history tracking in various contexts

historyTracker	<i>Construct and activate a HistoryTracker object</i>
----------------	---

Description

Constructors for the HistoryTracker family of objects.

Usage

```
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 histry package should provide them with history tracking.

histropts	<i>histry</i>
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Description

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

Usage

```
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 `histry` and a `HistoryTracker` object for `histry_tracker`

<code>histryProvDF</code>	<i>Generate ProvStoreDF from histry</i>
---------------------------	---

Description

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

Usage

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

Arguments

<code>tracker</code>	The <code>HistoryTracker</code> object to mine for the prov table information.
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Value

a `ProvStoreDF` object

knitrtracer	<i>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.</i>
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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).

saveHisty	<i>Save and load Histry data</i>
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Description

Save and load Histry data. Experimental.

Usage

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

```
loadHisty(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

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