

Package ‘bupaR’

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Description Comprehensive Business Process Analysis toolkit. Creates S3-class for event log objects, and related handler functions. Imports related packages for filtering event data, computation of descriptive statistics, handling of 'Petri Net' objects and visualization of process maps. See also packages 'edeaR', 'processmapR', 'eventdataR' and 'processmonitR'.

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activities

Activities

Description

Returns a `tbl_df` containing a list of all activity types in the event log, with their absolute and relative frequency

Usage

```
activities(eventlog)

## S3 method for class 'eventlog'
activities(eventlog)

## S3 method for class 'grouped_eventlog'
activities(eventlog)
```

Arguments

`eventlog` The event log to be used. An object of class `eventlog`.

Methods (by class)

- `eventlog`: Generate activity list for `eventlog`
- `grouped_eventlog`: Generate activity list for grouped `eventlog`

See Also

[activity_id,activity_instance_id,eventlog](#)

activities_to_eventlog

Create event log from list of activity instances

Description

Create event log from list of activity instances

Usage

```
activities_to_eventlog(activity_log, case_id, activity_id, resource_id,
  timestamps)
```

Arguments

activity_log	A data.frame where each row is an activity instances
case_id	Column name of the case identifier
activity_id	Column name of the activity identifier
resource_id	Column name of the resource identifier
timestamps	A vector of column names containing different timestamp. To column names will be transformed to lifecycle identifiers

activity_id	<i>Activity classifier</i>
-------------	----------------------------

Description

Get the activity classifier of an object of class eventlog.

Usage

```
activity_id(x)

## S3 method for class 'eventlog'
activity_id(x)

## S3 method for class 'eventlog_mapping'
activity_id(x)
```

Arguments

x An eventlog of eventlog_mapping

Methods (by class)

- eventlog: Retrieve activity identifier from eventlog
- eventlog_mapping: Retrieve activity identifier from eventlog mapping

See Also

[eventlog](#), [mapping](#)

Other Eventlog classifiers: [activity_instance_id](#), [case_id](#), [lifecycle_id](#), [mapping](#), [resource_id](#), [timestamp](#)

activity_instance_id *Activity instance classifier*

Description

Get the activity instance classifier of an object of class eventlog.

Usage

```
activity_instance_id(x)

## S3 method for class 'eventlog'
activity_instance_id(x)

## S3 method for class 'eventlog_mapping'
activity_instance_id(x)
```

Arguments

x An eventlog of eventlog_mapping

Methods (by class)

- eventlog: Retrieve activity instance identifier from eventlog
- eventlog_mapping: Retrieve activity instance identifier from eventlog mapping

See Also

Other Eventlog classifiers: [activity_id](#), [case_id](#), [lifecycle_id](#), [mapping](#), [resource_id](#), [timestamp](#)

activity_labels *Get vector of activity labels*

Description

Retrieve a vector containing all unique activity labels

Usage

```
activity_labels(eventlog)

## S3 method for class 'eventlog'
activity_labels(eventlog)
```

Arguments

eventlog Eventlog

Methods (by class)

- eventlog: Retrieve activity labels from eventlog

act_collapse	<i>Collapse activity labels of a sub process into a single activity</i>
--------------	---

Description

Collapse activity labels of a sub process into a single activity

Usage

```
act_collapse(eventlog, ..., method)
```

```
## S3 method for class 'eventlog'
act_collapse(eventlog, ..., method = c("entry_points",
    "consecutive"))
```

Arguments

eventlog	An eventlog object
...	A series of named character vectors. The activity labels in each vector will be collapsed into one activity with the name of the vector.
method	Defines how activities are collapsed: "entry_points" heuristically learns which of the specified activities occur at the start and end of the subprocess and collapses accordingly. "consecutive" collapses consecutive sequences of the activities.

Details

There are different strategies to collapse activity labels (argument `method`). The "entry_points" method aims to learn the start and end activities of the sub process, by looking at the first and last activity in each case over the whole log. Subsequently, it will create a new instance of the sub process each time there is an end activity followed by a start activity. This strategy will not take into account other activities happening in the mean time. The "consecutive" method will create an instance each time a new sequence of sub activities is started. This strategy will thus only take into account interruptions of the other activity labels.

Methods (by class)

- eventLog: Collapse activity labels of a subprocess into a single activity

See Also

Other Activity processing functions: [act_recode](#), [act_unite](#)

act_recode	<i>Recode activity labels</i>
------------	-------------------------------

Description

Recode one or more activity labels through specifying their old and new label

Usage

```
act_recode(eventlog, ...)

## S3 method for class 'eventlog'
act_recode(eventlog, ...)
```

Arguments

eventlog	An object of class eventlog.
...	A sequence of named character vectors of length one where the names gives the new label and the value gives the old label. Labels not mentioned will be left unchanged.

Methods (by class)

- eventlog: Recode activity labels of event log

See Also

[eventlog](#), [activity_id](#), [act_unite](#)
 Other Activity processing functions: [act_collapse](#), [act_unite](#)

act_unite	<i>Unite activity labels</i>
-----------	------------------------------

Description

Recode two or different more activity labels two a uniform activity label

Usage

```
act_unite(eventlog, ...)

## S3 method for class 'eventlog'
act_unite(eventlog, ...)
```

Arguments

eventlog	An object of class eventlog.
...	A series of named character vectors. The activity labels in each vector will be replaced with the name.

Methods (by class)

- eventlog: Unite activity labels in event log

See Also

[eventlog](#), [activity_id](#), [act_recode](#)

Other Activity processing functions: [act_collapse](#), [act_recode](#)

add_end_activity *Add artificial start/end activities to*

Description

Add artificial start/end activities to

Usage

```
add_end_activity(eventlog, label)

add_start_activity(eventlog, label)

## S3 method for class 'eventlog'
add_end_activity(eventlog, label = "End")

## S3 method for class 'grouped_eventlog'
add_end_activity(eventlog, label = "End")

## S3 method for class 'eventlog'
add_start_activity(eventlog, label = "Start")

## S3 method for class 'grouped_eventlog'
add_start_activity(eventlog, label = "Start")
```

Arguments

eventlog	Event log
label	Start/end activity label

Methods (by class)

- `eventlog`: Add end activity to event log
- `grouped_eventlog`: Add end activity to grouped event log
- `eventlog`: Add start activity to event log
- `grouped_eventlog`: Add start activity to grouped event log

`bupaR`*bupaR - Business Process Analysis in R*

Description

Functionalities for process analysis in R. This packages implements an S3-class for event log objects, and related handler functions. Imports related packages for subsetting event data, computation of descriptive statistics, handling of Petri Net objects and visualization of process maps.

`cases`*Cases*

Description

Provides a fine-grained summary of an event log with characteristics for each case: the number of events, the number of activity types, the timespan, the trace, the duration and the first and last event type.

Usage

```
cases(eventlog)
```

```
## S3 method for class 'eventlog'  
cases(eventlog)
```

Arguments

`eventlog` An eventlog object. `eventlog`.

Methods (by class)

- `eventlog`: Constructy list of cases in an eventlog

case_id	<i>Case classifier</i>
---------	------------------------

Description

Get the case classifier of an object of class eventlog

Usage

```
case_id(x)

## S3 method for class 'eventlog'
case_id(x)

## S3 method for class 'eventlog_mapping'
case_id(x)
```

Arguments

x An eventlog of eventlog_mapping

Methods (by class)

- eventlog: Retrieve case identifier from eventlog
- eventlog_mapping: Retrieve case identifier from eventlog mapping

See Also

[eventlog](#), [mapping](#)

Other Eventlog classifiers: [activity_id](#), [activity_instance_id](#), [lifecycle_id](#), [mapping](#), [resource_id](#), [timestamp](#)

case_labels	<i>Get vector of case labels</i>
-------------	----------------------------------

Description

Retrieve a vector containing all unique case labels

Usage

```
case_labels(eventlog)

## S3 method for class 'eventlog'
case_labels(eventlog)
```

Arguments

eventlog Eventlog

Methods (by class)

- eventlog: Retrieve case labels from eventlog

case_list	<i>Case list</i>
-----------	------------------

Description

Construct list of cases

Usage

```
case_list(eventlog)
```

```
## S3 method for class 'eventlog'
case_list(eventlog)
```

Arguments

eventlog Eventlog object

Methods (by class)

- eventlog: Return case list

durations	<i>Durations</i>
-----------	------------------

Description

Computes the throughput times of each case. Throughput time is defined as the interval between the start of the first event and the completion of the last event.

Usage

```
durations(eventlog, units)
```

```
## S3 method for class 'eventlog'
durations(eventlog, units = "days")
```

Arguments

eventlog	The event log to be used. An object of class eventlog.
units	The time unit in which the throughput times should be reported.

Methods (by class)

- eventlog: Compute durations from eventlog

eventlog	<i>Eventlog</i>
----------	-----------------

Description

A function to instantiate an object of class eventlog by specifying a data.frame or tbl_df and appropriate case, activity and timestamp classifiers.

Usage

```
eventlog(eventlog, case_id = NULL, activity_id = NULL,
         activity_instance_id = NULL, lifecycle_id = NULL, timestamp = NULL,
         resource_id = NULL, order = "auto", validate = TRUE)
```

```
ieventlog(eventlog)
```

Arguments

eventlog	The data object to be used as event log. This can be a data.frame or tbl_df.
case_id	The case classifier of the event log. A character vector containing variable names of length 1 or more.
activity_id	The activity classifier of the event log. A character vector containing variable names of length 1 or more.
activity_instance_id	The activity instance classifier of the event log.
lifecycle_id	The life cycle classifier of the event log.
timestamp	The timestamp of the event log. Should refer to a Date or POSIXct field.
resource_id	The resource identifier of the event log. A character vector containing variable names of length 1 or more.
order	Configure how to handle sort events with equal timestamps: auto will use the order in the original data, alphabetical will sort the activity labels by alphabet, sorted will assume that the data frame is already correctly sorted and has a column '.order', providing a column name will use this column for ordering (can be numeric or character). The latter will never overrule timestamp orderings.
validate	When 'TRUE' some basic checks are run on the contents of the event log such as that activity instances are not connected to more than one case or activity. Using 'FALSE' improves the performance by skipping those checks.

See Also

[case_id](#), [activity_id](#), [activity_instance_id](#), [lifecycle_id](#), [timestamp](#)

Examples

```
## Not run:
data <- data.frame(case = rep("A",5),
  activity_id = c("A","B","C","D","E"),
  activity_instance_id = 1:5,
  lifecycle_id = rep("complete",5),
  timestamp = 1:5,
  resource = rep("resource 1", 5))
eventlog(data,case_id = "case",
  activity_id = "activity_id",
  activity_instance_id = "activity_instance_id",
  lifecycle_id = "lifecycle_id",
  timestamp = "timestamp",
  resource_id = "resource")

## End(Not run)
```

filter_attributes *Generic filter function for eventlog*

Description

Generic filter function for eventlog

Usage

```
filter_attributes(eventlog, ...)

## S3 method for class 'eventlog'
filter_attributes(eventlog, ...)

## S3 method for class 'grouped_eventlog'
filter_attributes(eventlog, ...)
```

Arguments

eventlog	Eventlog object
...	Filter conditions

Methods (by class)

- eventlog: Filter eventlog using attributes
- grouped_eventlog: Filter grouped eventlog using attributes

first_n	<i>Select first n activity instances</i>
---------	--

Description

Select first n activity instances

Usage

```
first_n(eventlog, n)

## S3 method for class 'eventlog'
first_n(eventlog, n)

## S3 method for class 'grouped_eventlog'
first_n(eventlog, n)
```

Arguments

eventlog	Eventlog object
n	Integer value

Methods (by class)

- eventlog: Select first n activity instances in event log
- grouped_eventlog: Select first n activity instances in grouped event log

group_by_activity	<i>Group event log on activity id</i>
-------------------	---------------------------------------

Description

Group an event log by activity identifier

Usage

```
group_by_activity(eventlog)

## S3 method for class 'eventlog'
group_by_activity(eventlog)
```

Arguments

eventlog	Eventlog
----------	----------

Methods (by class)

- eventlog: Group eventlog on activity identifier

group_by_activity_instance
Group event log on activity instance id

Description

Group an event log by activity instance identifier

Usage

```
group_by_activity_instance(eventlog)

## S3 method for class 'eventlog'
group_by_activity_instance(eventlog)
```

Arguments

eventlog Eventlog

Methods (by class)

- eventlog: Group eventlog on activity instance identifier

group_by_case *Group event log on case id*

Description

Group an event log by case identifier

Usage

```
group_by_case(eventlog)

## S3 method for class 'eventlog'
group_by_case(eventlog)
```

Arguments

eventlog Eventlog

Methods (by class)

- eventlog: Group eventlog on case identifier

group_by_resource *Group event log on resource id*

Description

Group an event log by resource identifier

Usage

```
group_by_resource(eventlog)
```

```
## S3 method for class 'eventlog'  
group_by_resource(eventlog)
```

Arguments

eventlog Eventlog

Methods (by class)

- eventlog: Group eventlog on resource identifier

group_by_resource_activity
Group event log on resource and activity id

Description

Group an event log by resource and activity identifier

Usage

```
group_by_resource_activity(eventlog)
```

```
## S3 method for class 'eventlog'  
group_by_resource_activity(eventlog)
```

Arguments

eventlog Eventlog

Methods (by class)

- eventlog: Group an event log by resource and activity identifier

last_n	<i>Select last n activity instances</i>
--------	---

Description

Select last n activity instances

Usage

```
last_n(eventlog, n)

## S3 method for class 'eventlog'
last_n(eventlog, n)

## S3 method for class 'grouped_eventlog'
last_n(eventlog, n)
```

Arguments

eventlog	Eventlog object
n	Integer value

Methods (by class)

- eventlog: Select first n activity instances in event log
- grouped_eventlog: Select first n activity instances in grouped event log

lifecycle_id	<i>Life cycle classifier</i>
--------------	------------------------------

Description

Get the life_cycle_id of an object of class eventlog

Usage

```
lifecycle_id(x)

## S3 method for class 'eventlog'
lifecycle_id(x)

## S3 method for class 'eventlog_mapping'
lifecycle_id(x)
```

Arguments

x An eventlog of eventlog_mapping

Methods (by class)

- eventlog: Retrieve lifecycle identifier from eventlog
- eventlog_mapping: Retrieve lifecycle identifier from eventlog mapping

See Also

Other Eventlog classifiers: [activity_id](#), [activity_instance_id](#), [case_id](#), [mapping](#), [resource_id](#), [timestamp](#)

mapping

Mapping

Description

Prints the mapping of an event log object.

Usage

```
mapping(eventlog)
```

```
## S3 method for class 'eventlog'  
mapping(eventlog)
```

Arguments

eventlog The event log to be used. An object of class eventlog.

Methods (by class)

- eventlog: Retrieve identifier mapping from eventlog

See Also

Other Eventlog classifiers: [activity_id](#), [activity_instance_id](#), [case_id](#), [lifecycle_id](#), [resource_id](#), [timestamp](#)

n_activities	<i>n_activities</i>
--------------	---------------------

Description

Returns the number of activities in an event log

Usage

```
n_activities(eventlog)

## S3 method for class 'eventlog'
n_activities(eventlog)

## S3 method for class 'grouped_eventlog'
n_activities(eventlog)
```

Arguments

eventlog The event log to be used. An object of class eventlog.

Methods (by class)

- eventlog: Count the number of activities in an event log
- grouped_eventlog: Count the number of activities for a grouped event log

See Also

Other Eventlog count functions: [n_activity_instances](#), [n_cases](#), [n_events](#), [n_resources](#), [n_traces](#)

n_activity_instances	<i>n_activity_instances</i>
----------------------	-----------------------------

Description

Returns the number of activity instances in an event log

Usage

```
n_activity_instances(eventlog)

## S3 method for class 'eventlog'
n_activity_instances(eventlog)

## S3 method for class 'grouped_eventlog'
n_activity_instances(eventlog)
```

Arguments

eventlog The event log to be used. An object of class eventlog.

See Also

Other Eventlog count functions: [n_activities](#), [n_cases](#), [n_events](#), [n_resources](#), [n_traces](#)

n_cases	<i>n_cases</i>
---------	----------------

Description

Returns the number of cases in an event log

Usage

```
n_cases(eventlog)

## S3 method for class 'eventlog'
n_cases(eventlog)

## S3 method for class 'grouped_eventlog'
n_cases(eventlog)
```

Arguments

eventlog The event log to be used. An object of class eventlog.

Methods (by class)

- eventlog: Count number of cases for eventlog
- grouped_eventlog: Count number of cases for grouped eventlog

See Also

Other Eventlog count functions: [n_activities](#), [n_activity_instances](#), [n_events](#), [n_resources](#), [n_traces](#)

n_events	<i>n_events</i>
----------	-----------------

Description

Returns the number of events in an event log

Usage

```
n_events(eventlog)

## S3 method for class 'eventlog'
n_events(eventlog)

## S3 method for class 'grouped_eventlog'
n_events(eventlog)
```

Arguments

eventlog The event log to be used. An object of class eventlog.

Methods (by class)

- eventlog: Count number of resources in eventlog
- grouped_eventlog: Count number of resource in eventlog

See Also

Other Eventlog count functions: [n_activities](#), [n_activity_instances](#), [n_cases](#), [n_resources](#), [n_traces](#)

n_resources	<i>n_resources</i>
-------------	--------------------

Description

Returns the number of resources in an event log

Usage

```
n_resources(eventlog)

## S3 method for class 'eventlog'
n_resources(eventlog)

## S3 method for class 'grouped_eventlog'
n_resources(eventlog)
```

Arguments

eventlog The event log to be used. An object of class eventlog.

Methods (by class)

- eventlog: Count number of resources in eventlog
- grouped_eventlog: Count number of resources in grouped eventlog

See Also

Other Eventlog count functions: [n_activities](#), [n_activity_instances](#), [n_cases](#), [n_events](#), [n_traces](#)

n_traces

n_traces

Description

Returns the number of traces in an event log

Usage

```
n_traces(eventlog)
```

```
## S3 method for class 'eventlog'
n_traces(eventlog)
```

```
## S3 method for class 'grouped_eventlog'
n_traces(eventlog)
```

Arguments

eventlog The event log to be used. An object of class eventlog.

Methods (by class)

- eventlog: Count number of traces for eventlog
- grouped_eventlog: Count number of traces for grouped eventlog

See Also

Other Eventlog count functions: [n_activities](#), [n_activity_instances](#), [n_cases](#), [n_events](#), [n_resources](#)

print.eventlog	<i>Generic print function for eventlog</i>
----------------	--

Description

Generic print function for eventlog

Usage

```
## S3 method for class 'eventlog'  
print(x, ...)
```

Arguments

x	Eventlog object
...	Additional Arguments

print.eventlog_mapping	<i>Generic print function for eventlog_mapping</i>
------------------------	--

Description

Generic print function for eventlog_mapping

Usage

```
## S3 method for class 'eventlog_mapping'  
print(x, ...)
```

Arguments

x	Eventlog mapping object
...	Additional Arguments

 resources

Resources

Description

Returns a tbl_df containing a list of all resources in the event log, with there absolute and relative frequency

Usage

```
resources(eventlog)

## S3 method for class 'eventlog'
resources(eventlog)

## S3 method for class 'grouped_eventlog'
resources(eventlog)
```

Arguments

eventlog The event log to be used. An object of class eventlog.

Methods (by class)

- eventlog: Generate resource list for eventlog
- grouped_eventlog: Generate resource list for grouped eventlog

See Also

[resource_id, eventlog](#)

resource_id

Resource classifier

Description

Get the resource classifier of an object of class eventlog.

Usage

```
resource_id(x)

## S3 method for class 'eventlog'
resource_id(x)

## S3 method for class 'eventlog_mapping'
resource_id(x)
```


Arguments

x An eventlog of eventlog_mapping

Methods (by class)

- eventlog: Retrieve resource identifier from eventlog
- eventlog_mapping: Retrieve resource identifier from eventlog mapping

See Also

[eventlog](#), [mapping](#)

Other Eventlog classifiers: [activity_id](#), [activity_instance_id](#), [case_id](#), [lifecycle_id](#), [mapping](#), [timestamp](#)

resource_labels *Get vector of resource labels*

Description

Retrieve a vector containing all unique resource labels

Usage

```
resource_labels(eventlog)

## S3 method for class 'eventlog'
resource_labels(eventlog)
```

Arguments

eventlog Eventlog

Methods (by class)

- eventlog: Retrieve resource labels from eventlog

re_map	<i>Re map</i>
--------	---------------

Description

Construct an eventlog using an existing mapping.

Usage

```
re_map(eventlog, eventlog_mapping)
```

Arguments

eventlog	The event log data to be used.
eventlog_mapping	An existing eventlog mapping created by the mapping function

set_case_id	<i>Set individual attributes of event log</i>
-------------	---

Description

Set individual attributes of event log

Usage

```
set_case_id(eventlog, case_id)

set_activity_id(eventlog, activity_id)

set_activity_instance_id(eventlog, activity_instance_id)

set_timestamp(eventlog, timestamp)

set_resource_id(eventlog, resource_id)

set_lifecycle_id(eventlog, lifecycle_id)

## S3 method for class 'eventlog'
set_case_id(eventlog, case_id)

## S3 method for class 'grouped_eventlog'
set_case_id(eventlog, case_id)

## S3 method for class 'eventlog'
```

```
set_activity_id(eventlog, activity_id)

## S3 method for class 'grouped_eventlog'
set_activity_id(eventlog, activity_id)

## S3 method for class 'eventlog'
set_activity_instance_id(eventlog, activity_instance_id)

## S3 method for class 'grouped_eventlog'
set_activity_instance_id(eventlog,
  activity_instance_id)

## S3 method for class 'eventlog'
set_timestamp(eventlog, timestamp)

## S3 method for class 'grouped_eventlog'
set_timestamp(eventlog, timestamp)

## S3 method for class 'eventlog'
set_resource_id(eventlog, resource_id)

## S3 method for class 'grouped_eventlog'
set_resource_id(eventlog, resource_id)

## S3 method for class 'eventlog'
set_lifecycle_id(eventlog, lifecycle_id)

## S3 method for class 'grouped_eventlog'
set_lifecycle_id(eventlog, lifecycle_id)
```

Arguments

eventlog	Event log object
case_id	New case id
activity_id	New activity id
activity_instance_id	New activity instance id
timestamp	New timestamp
resource_id	New resource id
lifecycle_id	New lifecycle id

Methods (by class)

- eventlog: Set case id of event log
- grouped_eventlog: Set case id of grouped event log
- eventlog: Set activity id of event log

- grouped_eventlog: Set activity id of grouped event log
- eventlog: Set activity instance id of event log
- grouped_eventlog: Set activity instance id of grouped event log
- eventlog: Set timestamp of event log
- grouped_eventlog: Set timestamp of grouped event log
- eventlog: Set resource_id of event log
- grouped_eventlog: Set resource_id of grouped event log
- eventlog: Set lifecycle_id of event log
- grouped_eventlog: Set lifecycle_id of grouped event log

 simple_eventlog

Simple Eventlog

Description

A function to instantiate an object of class eventlog by specifying a data.frame or tbl_df and the minimally required case identifier, activity identifier and timestamp

Usage

```
simple_eventlog(eventlog, case_id = NULL, activity_id = NULL,
               timestamp = NULL, order = "auto")
```

```
isimple_eventlog(eventlog)
```

Arguments

eventlog	The data object to be used as event log. This can be a data.frame or tbl_df.
case_id	The case classifier of the event log.
activity_id	The activity classifier of the event log.
timestamp	The timestamp of the event log.
order	Configure how to handle sort events with equal timestamps: auto will use the order in the original data, alphabetical will sort the activity labels by alfabath, providing a column name will use this column for ordering (can be numeric of character). The latter will never overrule timestamp orderings.

See Also

[eventlog](#), [case_id](#), [activity_id](#), [activity_instance_id](#), [lifecycle_id](#), [timestamp](#)

Examples

```
## Not run:
data <- data.frame(case = rep("A",5),
  activity_id = c("A","B","C","D","E"),
  timestamp = date_decimal(1:5))
simple_eventlog(data,case_id = "case",
  activity_id = "activity_id",
  timestamp = "timestamp")

## End(Not run)
```

slice_activities	<i>Slice Activities</i>
------------------	-------------------------

Description

Take a slice of activity instances from event log

Usage

```
slice_activities(.data, ...)

## S3 method for class 'eventlog'
slice_activities(.data, ...)

## S3 method for class 'grouped_eventlog'
slice_activities(.data, ...)
```

Arguments

.data	Eventlog
...	Slice index

Methods (by class)

- eventlog: Take a slice of activity instances from event log
- grouped_eventlog: Take a slice of activity instances from grouped event log

slice_events	<i>Slice Events</i>
--------------	---------------------

Description

Take a slice of events from event log

Usage

```
slice_events(.data, ...)

## S3 method for class 'eventlog'
slice_events(.data, ...)

## S3 method for class 'grouped_eventlog'
slice_events(.data, ...)
```

Arguments

.data	Eventlog
...	Slice index

Methods (by class)

- eventlog: Take a slice of events from event log
- grouped_eventlog: Take a slice of events from grouped event log

summary.eventlog	<i>Generic summary function for eventlog class</i>
------------------	--

Description

Generic summary function for eventlog class

Usage

```
summary(object, ...)

## S3 method for class 'eventlog'
summary(object, ...)

## S3 method for class 'grouped_eventlog'
summary(object, ...)
```

Arguments

object	Eventlog object
...	Additional Arguments

Methods (by class)

- `grouped_eventlog`: Summary of grouped event log

`timestamp`*Timestamp classifier*

Description

Get the timestamp classifier of an object of class `eventlog`

Usage

```
timestamp(x)
```

```
## S3 method for class 'eventlog'  
timestamp(x)
```

```
## S3 method for class 'eventlog_mapping'  
timestamp(x)
```

Arguments

`x` An `eventlog` or `eventlog_mapping`

Methods (by class)

- `eventlog`: Retrieve timestamp identifier from `eventlog`
- `eventlog_mapping`: Retrieve timestamp identifier from `eventlog` mapping

See Also

[eventlog](#), [mapping](#)

Other `Eventlog` classifiers: [activity_id](#), [activity_instance_id](#), [case_id](#), [lifecycle_id](#), [mapping](#), [resource_id](#)

traces	<i>Traces</i>
--------	---------------

Description

traces computes the different activity sequences of an event log together with their absolute and relative frequencies. Activity sequences are based on the start timestamp of activities.

Usage

```
traces(eventlog, ...)

## S3 method for class 'eventlog'
traces(eventlog, ...)

## S3 method for class 'grouped_eventlog'
traces(eventlog, ...)
```

Arguments

eventlog	The event log to be used. An object of class eventlog.
...	Deprecated arguments

Methods (by class)

- eventlog: Construct traces list for eventlog
- grouped_eventlog: Construct list of traces for grouped eventlog

See Also

[cases](#), [eventlog](#)

trace_list	<i>Trace list</i>
------------	-------------------

Description

Construct trace list

Usage

```
trace_list(eventlog)

## S3 method for class 'eventlog'
trace_list(eventlog)
```


Arguments

eventlog Eventlog object

Methods (by class)

- eventlog: Construct trace list for event log

ungroup_eventlog *Ungroup event log*

Description

Remove groups from event log

Usage

```
ungroup_eventlog(eventlog)
```

```
## S3 method for class 'eventlog'  
ungroup_eventlog(eventlog)
```

Arguments

eventlog Eventlog

Methods (by class)

- eventlog: Remove groups from event log

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