

Package: atools (via r-universe)

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Title Tools to Manipulate ATO

Version 0.0.0.9001

Description Provides tools to manipulate ATO objects. Includes functions for filtering, excluding, and additional calculations.

License GPL-3

Encoding UTF-8

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Language en-GB

Depends R (>= 4.0.0)

Imports ATO, stats, data.table, utils, methods

Remotes trackyverse/ATO

Suggests testthat

URL <https://github.com/trackyverse/atools>,
<http://atools.trackyverse.org>

BugReports <https://github.com/trackyverse/atools/issues>

Repository <https://trackyverse.r-universe.dev>

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calc_det_interval	<i>Calculate time interval between detections</i>
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Description

Calculate time interval between detections

Usage

```
calc_det_interval(object)
```

Arguments

object an [ATO](#)

Value

an updated [ATO](#)

create_filter_vec	<i>Worker function to create filtering vector</i>
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Description

Worker function to create filtering vector

Usage

```
create_filter_vec(object, slt = c("ani", "dep", "det", "tag", "obs"), checks)
```

Arguments

object	an ATO
slt	the ATO slot to filter
checks	a list of column names and respective values to filter with

Value

a logical vector

exclude	<i>Exclude rows from an ATO slot</i>
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Description

If exclusion parameters are not provided, removes the entire slot.

Usage

```
exclude(
  object,
  slt = c("ani", "dep", "det", "tag", "obs"),
  ...,
  hard = FALSE,
  silent = FALSE
)
```

Arguments

object	an ATO
slt	The slot to be filtered.
...	named arguments to exclude by. The argument's name must match one of the column names in the target slot. If only one value is provided, data is excluded by exact match. If two values are provided for continuous variables, data is filtered within the interval provided. If three or more values are provided, data is filtered by exact match. If no arguments are provided, the entire slot is removed.
hard	If false (the default), animal rows are flagged as invalid through the valid column, but kept in the dataset. Switch to true to drop the rows that do not fit the filtering criteria (useful to improve performance when handling very large datasets).
silent	Logical: Suppress summary messages

Value

the updated ATO

`exclude_orphan_dets` *Wrapper to exclude detections that to not match the deployments*

Description

Wrapper to exclude detections that to not match the deployments

Usage

```
exclude_orphan_dets(object, hard = FALSE)
```

Arguments

<code>object</code>	an ATO
<code>hard</code>	If false (the default), detections are flagged as invalid through the <code>invalid</code> column, but kept in the dataset. Switch to true to completely remove the detections from the dataset (useful to improve performance when handling very large datasets).

Value

the updated ATO

`filter` *Filter rows from an ATO slot*

Description

Filter rows from an ATO slot

Usage

```
filter(  
  object,  
  slt = c("ani", "dep", "det", "tag", "obs"),  
  ...,  
  hard = FALSE,  
  silent = FALSE  
)
```

Arguments

object	an ATO
slt	The slot to be filtered.
...	named arguments to filter for. The argument's name must match one of the column names in the animals slot. If only one value is provided, data is filtered by exact match. If two values are provided for continuous variables, data is filtered within the interval provided. If three or more values are provided, data is filtered by exact match.
hard	If false (the default), animal rows are flagged as invalid through the valid column, but kept in the dataset. Switch to true to drop the tags that do not fit the filtering criteria (useful to improve performance when handling very large datasets).
silent	Logical: Suppress summary messages

Value

the updated ATO

filter_datetime	<i>Wrapper to filter detections and observations within the desired time period</i>
-----------------	---

Description

Wrapper to filter detections and observations within the desired time period

Usage

```
filter_datetime(object, from = "1970-01-01", to = "3000-01-01", hard = FALSE)
```

Arguments

object	an ATO
from	Filter data from this timestamp (included). Can be posixct or character.
to	Filter data up to this timestamp (included). Can be posixct or character.
hard	If false (the default), animal rows are flagged as invalid through the valid column, but kept in the dataset. Switch to true to drop the tags that do not fit the filtering criteria (useful to improve performance when handling very large datasets).

Value

the updated ATO

filter_ping_dev	<i>wrapper to filter detections by ping deviation bands</i>
-----------------	---

Description

wrapper to filter detections by ping deviation bands

Usage

```
filter_ping_dev(object, bands, grace, hard = FALSE)
```

Arguments

object	an ATO
bands	a vector of deviation bands to filter
grace	width of the bands to extract
hard	If false (the default), animal rows are flagged as invalid through the valid column, but kept in the dataset. Switch to true to drop the tags that do not fit the filtering criteria (useful to improve performance when handling very large datasets).

Value

the updated ATO

filter_reset	<i>Clear all previously applied (non-hard) filters</i>
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Description

Clear all previously applied (non-hard) filters

Usage

```
filter_reset(object, s)
```

Arguments

object	an ATO
s	the slot to be reset. If not provided, all slots are reset.

Value

the updated ATO

filter_targeted	<i>Wrapper to filter detections and observations that match the transmitters in the tag and dep slots.</i>
-----------------	--

Description

Wrapper to filter detections and observations that match the transmitters in the tag and dep slots.

Usage

```
filter_targeted(object, hard = FALSE)
```

Arguments

object	an ATO
hard	If false (the default), animal rows are flagged as invalid through the valid column, but kept in the dataset. Switch to true to drop the tags that do not fit the filtering criteria (useful to improve performance when handling very large datasets).

Value

the updated ATO

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