

# Package ‘flaskcycle’

November 4, 2024

**Type** Package  
**Title** Control and tracking of flasks for atmospheric sampling of greenhouse gases  
**Version** 1.0  
**Date** 2024-11-04  
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**Description** This package contains a set of functions to track flasks sampled with an ICOS automated flasks sampler, their location, and laboratory submissions.  
**License** MIT  
**Imports** csvy, yaml  
**RoxygenNote** 7.3.2.9000  
**NeedsCompilation** no

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checkboxBox	<i>Check if flasks in a box have been recorded as sampled from the autosampler</i>
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## Description

Check if flasks in a box have been recorded as sampled from the autosampler

## Usage

```
checkboxBox(samplerBoxData, manualList)
```

**Arguments**

- samplerBoxData A data.frame of sampled boxes produced as a report from the autosampler and loaded using the function selectBox
- manualList a data.frame with flask IDs manually produced at the time of checking a box.

**Value**

a logical vector of flasks that match both lists.

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load_cf	<i>Load control file, data and metadata</i>
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**Description**

Load control file, data and metadata

**Usage**

```
load_cf(cf)
```

**Arguments**

- cf character string to the path to the control file. Usually a .csv file with a yaml metadata header.

**Value**

list with a data.frame with data, and a list with metadata information

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sampledBoxes	<i>Collect all information from the report produced by the autosampler about packed boxes and prints a report</i>
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**Description**

Collect all information from the report produced by the autosampler about packed boxes and prints a report

**Usage**

```
sampledBoxes(  
  fromWhere = "~/Repos/ATTO_flask_sampling/FlaskCycle/packedBoxes",  
  toWhere = fromWhere  
)
```

**Arguments**

- fromWhere a character string with the path with the reports are stored.
- toWhere a character string with the path to store the report.

Value

a csv file with the data of all sampled boxes

Examples

sampledBoxes()

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selectBox	<i>Selects data for a single box from all sampled boxes</i>
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Description

Selects data for a single box from all sampled boxes

Usage

selectBox(box, year = NULL, sampledBoxes)

Arguments

- box                    character string with box ID
- year                   integer with the year of sampling
- sampledBoxes        character string with the path of the report of all sampled boxes

Value

sampling report for one selected box

Examples

```
selectBox(box="B0171", year=2023, sampledBoxes = "~/Repos/ATTO_flask_sampling/FlaskCycle/packedBoxes/sampledBoxes.csv")
selectBox(box="B0171", sampledBoxes = "~/Repos/ATTO_flask_sampling/FlaskCycle/packedBoxes/sampledBoxes.csv")
```

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submissionInfo	<i>Extracts required information for submitting sampled flasks to a laboratory</i>
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Description

Extracts required information for submitting sampled flasks to a laboratory

Usage

```
submissionInfo(
  box,
  file = "~/Repos/ATTO_flask_sampling/FlaskCycle/SubmissionFiles/Aug2024.csv"
)
```

**Arguments**

box	data.frame with the sampler report for a specific box ID
file	character string with the path and file name to write output

**Value**

writes a csv file at the specified path

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unzipBox	<i>Unzip files containing reports of sampled flasks from autosampler</i>
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**Description**

Unzip files containing reports of sampled flasks from autosampler

**Usage**

```
unzipBox(year, path)
```

**Arguments**

year	character vector of years of data to unzip
path	character string with the path where zip files are stored

**Value**

a file containing all data from a box report

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