Package: SampleSplitting (via r-universe)

October 13, 2026

Type Package

Title Assists users in loading site data and preparing splitting volumes for the lab

Version 1.0.6

Date 2016-02-17

Depends R (>= 3.0)

Imports dataRetrieval (>= 2.4.0), googleVis

Suggests knitr

Description Uses USGS NWISWeb web services to fetch data for the user's desired USGS NWIS stations; calculates sample bottle volumes for provided storm events; and returns this data in a text output file.

License CC0

LazyLoad yes

LazyData yes

VignetteBuilder knitr

RoxygenNote 7.1.1

Config/pak/sysreqs libabsl-dev cmake libgdal-dev gdal-bin libgeos-dev libxml2-dev libssl-dev libproj-dev libsqlite3-dev libudunits2-dev libx11-dev

Repository https://ldecicco-usgs.r-universe.dev

Date/Publication 2022-10-12 21:28:20 UTC

RemoteUrl https://github.com/USGS-R/SampleSplitting

RemoteRef HEAD

RemoteSha b7b44976dffc1aa43103beb60cff29c8c36913f7

Contents

getADAPSData 2
hydrographInteractive 3
hydrographPDF 3

intermediateVolTable 4
labDataOut 4
labDataOutMI 6
labVolumesTable 7
labVolumesTableMI 8
mergedDataTable 8
paramAvailability 9
rdbExample 9
stormEventsTable 10

Index **11**

`getADAPSData` *Function to return adaps_data_all df from NWISWeb or previously retrieved RDB files*

Description

This function accepts an NWIS gage site id, an NWIS precip site id, a StartDate, an EndDate, a timezone and file names as needed

Usage

```
getADAPSData(siteNo, StartDt, EndDt, precipSite, dataFile = "", tzCode = "")
```

Arguments

`siteNo`	NWIS gaging station id
`StartDt`	a date to start data pulls
`EndDt`	a date to end data pulls
`precipSite`	NWIS precipitation station id
`dataFile`	string of data file path and name
`tzCode`	a timezone specification for the data

Value

adaps_data_all data frame containing merged ADAPS data for the requested site and date range

Examples

```
## Not run:
siteNo <- "424421077495301"
StartDt <- '2016-02-03'
EndDt <- '2016-02-03'
precipSite <- "424421077495301"
tzCode <- "America/Jamaica"
adaps_data_all <- getADAPSData(siteNo,StartDt,EndDt,precipSite,tzCode=tzCode)

## End(Not run)
```

hydrographInteractive *Function to return hydrographInteractive html to create interactive hydrograph plot through googleVis*

Description

This function accepts a merged data frame of ADAPS data for a site/storm event

Usage

```
hydrographInteractive(adaps_data_all)
```

Arguments

adaps_data_all	data frame containing merged ADAPS data for the requested storm event

Value

hydrographInteractive html object containing code to create googleVis plot

Examples

```
rdbExample<-rdbExample
hydrographInteractive(rdbExample)
```

hydrographPDF *Function to generate and save pdf version of the hydrograph plot*

Description

This function accepts a merged data frame of ADAPS data for a site/storm event

Usage

```
hydrographPDF(adaps_data_all, siteNo, dateInt, tzCode = "America/Chicago")
```

Arguments

adaps_data_all	data frame containing merged ADAPS data for the requested storm event
siteNo	string containing USGS gage number
dateInt	number containing number of hours difference between x-axis tick marks
tzCode	character a timezone specification for the data #' @export

intermediateVolTable *Function to csv file of all intermediate volumes used for calculations*

Description

This function accepts a siteNo, StartDt, EndDt and tableOut list of data for a given storm event

Usage

```
intermediateVolTable(siteNo, StartDt, EndDt, tableOut)
```

Arguments

siteNo	USGS station id
StartDt	start of storm event
EndDt	end of storm event
tableOut	list of data frames of event data

labDataOut *Function to return adaps_lab_samples df derived from previously merged data*

Description

This function accepts a data frame of data for a site/storm event, storm start dates, storm end dates, storm names, maximum volume in one sample bottle, and maximum volume for an entire storm sample

Usage

```
labDataOut(
  adaps_data_all,
  StormStart,
  StormEnd,
  StormName,
  maxBottleVol,
  maxSampVol,
  removeDate = NA,
  subNum = -9,
  tzCode = "America/Chicago"
)
```

Arguments

adaps_data_all	data frame containing merged ADAPS data for the requested site and date range
StormStart	vector of datetimes for storm starts
StormEnd	vector of datetime for storm ends
StormName	vector of storm names
maxBottleVol	vector of maximum volumes in one subsample bottle
maxSampVol	vector of maximum volumes of one total sample
removeDate	vector of datetimes to be removed from the calculation, in the same timezone as adaps_data_all$datetime
subNum	vector of starting numbers for first bottle of each storm event
tzCode	character a timezone specification for the data

Value

tableOut list of a table for each storm event of bottle volumes

Examples

```
rdbExample <- rdbExample
tzCode <- "America/Chicago"
maxBottleVol <- c(400,600,600,600,600,600,600,400,600,800)
maxSampVol <- c(3900,3900,3900,3900,3900,3900,3900,3900,3900,3900)
StormStart <- c("2008-05-30 02:51","2008-06-05 04:39","2008-06-06 04:22",
                "2008-06-07 22:52","2008-06-08 08:41","2008-06-08 19:03",
                "2008-06-12 09:03","2008-06-12 21:40","2008-06-14 16:52",
                "2008-06-15 04:07")
StormEnd <- c("2008-05-30 08:49","2008-06-05 07:21","2008-06-06 05:28",
              "2008-06-08 01:14","2008-06-08 11:39","2008-06-08 21:31",
              "2008-06-12 10:22","2008-06-13 01:36","2008-06-14 18:05",
              "2008-06-15 09:22")
StormName <- c("S2-066","S2-067","S2-068","S2-069","S2-070","S2-071",
               "S2-072","S2-073","S2-074","S2-075")
subNum <- c(1,1,1,1,16,1,1,5,1,7)
dataOut <- labDataOut(rdbExample,
                      StormStart,StormEnd,
                      StormName,maxBottleVol,maxSampVol)
removeDate <- as.POSIXct("2008-06-15 05:44:00")
dataOut2 <- labDataOut(rdbExample,
                       StormStart, StormEnd,
                       StormName,maxBottleVol,maxSampVol,
                        removeDate, tzCode = tzCode)
```

`labDataOutMI` *Function to return adaps_lab_samples df derived from previously merged data*

Description

This function accepts a data frame of data for a site/storm event, storm start dates, storm end dates, storm names, maximum volume in one sample bottle, and maximum volume for an entire storm sample

Usage

```
labDataOutMI(
  adaps_data_all,
  StormStart,
  StormEnd,
  StormName,
  maxBottleVol,
  maxSampVol,
  removeDate = NA,
  subNum = -9
)
```

Arguments

`adaps_data_all`	data frame containing merged ADAPS data for the requested site and date range
`StormStart`	vector of datetimes for storm starts
`StormEnd`	vector of datetime for storm ends
`StormName`	vector of storm names
`maxBottleVol`	vector of maximum volumes in one subsample bottle
`maxSampVol`	vector of maximum volumes of one total sample
`removeDate`	vector of datetimes to be removed from the calculation
`subNum`	vector of starting numbers for first bottle of each storm event

Value

tableOut list of a table for each storm event of bottle volumes

Examples

```
rdbExample <- rdbExample
maxBottleVol <- c(400,600,600,600,600,600,600,400,600,800)
maxSampVol <- c(3900,3900,3900,3900,3900,3900,3900,3900,3900,3900)
StormStart <- c("2008-05-30 02:51","2008-06-05 04:39","2008-06-06 04:22",
                "2008-06-07 22:52","2008-06-08 08:41","2008-06-08 19:03",
                "2008-06-12 09:03","2008-06-12 21:40","2008-06-14 16:52",
```

```
                "2008-06-15 04:07")
StormEnd <- c("2008-05-30 08:49","2008-06-05 07:21","2008-06-06 05:28",
              "2008-06-08 01:14","2008-06-08 11:39","2008-06-08 21:31",
              "2008-06-12 10:22","2008-06-13 01:36","2008-06-14 18:05",
              "2008-06-15 09:22")
StormName <- c("S2-066","S2-067","S2-068","S2-069","S2-070","S2-071",
               "S2-072","S2-073","S2-074","S2-075")
subNum <- c(1,1,1,1,16,1,1,5,1,7)
labDataOut(rdbExample,StormStart,StormEnd,StormName,
           maxBottleVol,maxSampVol)
```

`labVolumesTable` *Function to generate clean text file of sample amounts for lab*

Description

This function accepts a vector of storm names, vector of storm start and end datetimes and list of dataframes containing event data

Usage

```
labVolumesTable(
  StormName,
  StormStart,
  StormEnd,
  tableOut,
  bottlePickup,
  tzCode = "America/Chicago"
)
```

Arguments

`StormName`	vector of storm name(s)
`StormStart`	vector of storm start dates
`StormEnd`	vector of storm end dates
`tableOut`	list of data frames containing event data
`bottlePickup`	dates bottles were retrieved
`tzCode`	character a timezone specification for the data

labVolumesTableMI *Function to generate clean text file of sample amounts for lab*

Description

This function accepts a vector of storm names, vector of storm start and end datetimes and list of dataframes containing event data

Usage

```
labVolumesTableMI(StormName, StormStart, StormEnd, tableOut, bottlePickup)
```

Arguments

StormName	vector of storm name(s)
StormStart	vector of storm start dates
StormEnd	vector of storm end dates
tableOut	list of data frames containing event data
bottlePickup	dates bottles were retrieved

mergedDataTable *Function to save merged data for station/storm event, saved as file, eg 434425090462401data.txt*

Description

This function accepts a siteNo, StartDt and EndDt and merged data data frame for a storm event, and generates a data file

Usage

```
mergedDataTable(siteNo, StartDt, EndDt, adaps_data_all)
```

Arguments

siteNo	USGS station id
StartDt	start of storm event
EndDt	end of storm event
adaps_data_all	data frame of event data

paramAvailability *Function to return data availability, internal or public, from NWISWeb*

Description

This function accepts an NWIS gage site id

Usage

```
paramAvailability(siteNo)
```

Arguments

siteNo	NWIS gaging station id

Value

SiteFile data frame of data available for a given site from NWISWeb

Examples

```
## Not run:
siteNo <- "441520088045002"
StartDt <- '2014-03-10'
EndDt <- '2014-03-17'
paramAvailability(siteNo)

## End(Not run)
```

rdbExample *Example data*

Description

Example data

`stormEventsTable` *Function to generate text file with storm event sample bottle volume table(s) and extra info*

Description

This function accepts a vector of storm names, vector of storm start and end datetimes, vector of comments (optional) and list of dataframes containing event data

Usage

```
stormEventsTable(
  StormName,
  StormStart,
  StormEnd,
  tableOut,
  maxBottleVol,
  bottlePickup,
  removeComment = "",
  tzCode = "America/Chicago"
)
```

Arguments

`StormName`	vector of storm name(s)
`StormStart`	vector of storm start dates
`StormEnd`	vector of storm end dates
`tableOut`	list of data frames containing event data
`maxBottleVol`	maximum bottle volume
`bottlePickup`	date bottles were retrieved
`removeComment`	vector of comments
`tzCode`	character a timezone specification for the data

Index

∗ **datasets**
rdbExample, 9
∗ **data**
rdbExample, 9

getADAPSData, 2

hydrographInteractive, 3
hydrographPDF, 3

intermediateVolTable, 4

labDataOut, 4
labDataOutMI, 6
labVolumesTable, 7
labVolumesTableMI, 8

mergedDataTable, 8

paramAvailability, 9

rdbExample, 9

stormEventsTable, 10