Package 'FAIBOracle'

October 23, 2020

Title Load ground sample data from FAIB's databases

Version 0.1																			
Description Load g	round sample da	ta fro	m F	AIB	's th	ree	ora	ıcle	data	abas	ses:	VG	IS, (GY	S aı	nd I	SN	IC.	
License Apache Lic	cense (== 2.0) fi	le LI	CEN	NSE															
Encoding UTF-8																			
LazyData true																			
Roxygen list(marke	lown = TRUE)																		
RoxygenNote 7.1.0																			
Imports dplyr, data.table, rmarkdown, ROracle, DBI, openxlsx																			
Suggests knitr																			
R topics docu	mented:																		2
	all																		2
_	_bySampleType																		3
	_bySiteName																		4
	- , 																		5
loadVGISO	Crew																		5
loadVGISO	CWD																		6
loadVGISI	Ecology																		7
loadVGISI	LossIndicator																		7
loadVGISN	Notes																		8
loadVGISI	Photo																		9
	Plot																		10
loadVGISF	Range																		10
	Sample																		
	SampleAccess .																		
loadVGISS	SiteTree																		12

loadVGISStumpSTree13loadVGISSuccession14loadVGISTreeC15

2 loadISMC_all

load	GYS		I	00	ıd i	the	o de	at o	ı fı	ror	n (\overline{i}	Z	O_1	rai	cle	d	ata	ıh	as	o							
Index																												20
	tablesInVGIS						•											•					 •			 •		18
	tablesInISMC																											18
	tablesInGYS.																											
	loadVGISVeg																											
	loadVGISTree	Ι.																										16

Description

This function is to load the natural growth PSP data from GYS Oracle database. This function is adapted from the first part of cv_gys.sas.

Usage

```
loadGYS(userName, passWord, savePath = file.path("."))
```

Arguments

character, Specifies a valid user name in GYS Oracle database. userName

passWord character, Specifies the password to the user name.

savePath character, Specifies the path to save your outputs, you do not need to specify

if saveThem is turned off. If missing, the current working directory will be

choosed.

Value

no value returned

Author(s)

Yong Luo

loadISMC_all

Load all key data from ISMC Oracle database

Description

This function is to load all the key ground sample data from ISMC database.

```
loadISMC_all(
 userName,
 passWord,
 env,
  savePath = ".",
 saveFormat = "rds",
 overWrite = FALSE
```

Arguments

userName character, Specifies a valid user name in ISMC Oracle database.

passWord character, Specifies the password to the user name.

env character, Specifies which environment the data reside. Currently, the function

supports INT (intergration) and {TEST(test) environment.

Value

No value returned. There are 19 tables will be saved with ISMC_YYYYMMDDHHHH(ALL)_ as a prefix. These tables are SampleSites, AccessNotes, Plots, SampleSiteVisits, GroundSampleCrewActivities, PlotDetails, SampleMeasurements, SmallLiveTreeTallies, TreeMeasurements, TreeDetails, TreeDamageOccurrences, TreeLossIndicators, TreeLogAssessments, StumpTallies, SiteNavigation, IntegratedPlotCenter, ReferencePoint and TiePoint.

Author(s)

Yong Luo

loadISMC_bySampleType Load the data from ISMC Oracle database using sample type(s)

Description

This function is to load the ground sample data from ISMC database using sample type(s).

Usage

```
loadISMC_bySampleType(
  userName,
  passWord,
  env,
  sampleType,
  savePath = ".",
  saveFormat = "rdata",
  overWrite = FALSE
)
```

Arguments

userName character, Specifies a valid user name in ISMC Oracle database.

passWord character, Specifies the password to the user name.

env character, Specifies which environment the data reside. Currently, the function

supports INT (intergration) and {TEST(test) environment.

Value

No value returned. There are 16 tables will be saved with prefix of ISMC_YYYYMMDDHHHH(sampletype)_. These tables are SampleSites, AccessNotes, SampleSiteVisits, GroundSampleCrewActivities, PlotDetails, SampleMeasurements, SmallLiveTreeTallies, TreeMeasurements, Trees, TreeDetails, TreeDamageOccurrences, TreeLossIndicators, TreeLogAssessments, StumpTallies, SiteNavigation, IntegratedPlotCenter, ReferencePoint and TiePoint.

Author(s)

Yong Luo

loadISMC_bySiteName

Load the data from ISMC Oracle database using site name(s)

Description

This function is to load the ground sample data from ISMC database using site name(s).

Usage

```
loadISMC_bySiteName(
   userName,
   passWord,
   env,
   siteName,
   savePath = ".",
   saveName,
   saveFormat = "rdata",
   overWrite = FALSE
)
```

Arguments

userName character, Specifies a valid user name in ISMC Oracle database.

passWord character, Specifies the password to the user name.

env character, Specifies which environment the data reside. Currently, the function

supports INT (intergration) and {TEST(test) environment.

Value

No value returned. There are 16 tables will be saved with prefix of saveName. These tables are SampleSites, AccessNotes, SampleSiteVisits, GroundSampleCrewActivities, PlotDetails, Sample-Measurements, SmallLiveTreeTallies, TreeMeasurements, Trees, TreeDetails, TreeDamageOccurrences, TreeLossIndicators, TreeLogAssessments, StumpTallies, SiteNavigation, IntegratedPlotCenter, ReferencePoint and TiePoint. Note that if the save format is xlsx, all the tables will be saved into one workbook.

Author(s)

loadVGIS 5

1	oadVGIS	Load the data from VGIS Oracle database

Description

This function is to read the data from VGIS Oracle database

Usage

```
loadVGIS(userName, passWord, saveThem = FALSE, savePath = ".")
```

Arguments

userName character, Specifies a valid user name in VGIS Oracle database.

passWord character, Specifies the password to the user name.

saveThem logical, Specifies whether the loaded data should be saved or returned. The

default value is FALSE, which means the function will not save files for you.

savePath character, Specifies the path that directs to the VRI original data soruce, i.e.,

//Mayhem/GIS_TIB/RDW/RDW_Data2/Work_Areas/VRI_ASCII_PROD/vri_sa.

Value

no files

Author(s)

Yong Luo

loadVGISCrew Load the crew data from Oracle database	
--	--

Description

This function is to load the crew data from VGIS Oracle database. And associated them with cluster.

Usage

```
loadVGISCrew(userName, passWord, saveThem = FALSE, savePath = ".")
```

Arguments

userName	character, Specifies a	valid user name in	VGIS Oracle database.
----------	------------------------	--------------------	-----------------------

passWord character, Specifies the password to the user name.

saveThem logical, Specifies whether the loaded data should be saved or returned. The

default value is FALSE, which means the function will not save files for you.

savePath character, Specifies the path to save your outputs, you do not need to specify if

saveThem is turned off.

6 loadVGISCWD

Value

Depends on saveThem, if it hs turned off (i.e., FALSE). The function returns three datasets:

• contains the crews for conducting QA;

•

Author(s)

Yong Luo

loadVGISCWD

Load the CWD data from Oracle database

Description

This function is to load the sample header data from VGIS Oracle database. And associated them with cluster.

Usage

```
loadVGISCWD(userName, passWord, saveThem = FALSE, savePath = file.path("."))
```

Arguments

userName character, Specifies a valid user name in VGIS Oracle database.

passWord character, Specifies the password to the user name.

saveThem logical, Specifies whether the loaded data should be saved or returned. The

default value is FALSE, which means the function will not save files for you.

savePath character, Specifies the path to save your outputs, you do not need to specify

if saveThem is turned off. If missing, the current working directory will be

choosed.

Value

Depends on saveThem, if it hs turned off (i.e., FALSE). The function returns three datasets:

• contains the crews for conducting QA;

•

Author(s)

loadVGISEcology 7

1 1	ICTCE.	1	~~.,
Toau	/GISE	cor	.02 V

Load the ecological data from Oracle database

Description

This function is to load the sample header data from VGIS Oracle database. And associated them with cluster.

Usage

```
loadVGISEcology(
  userName,
  passWord,
  saveThem = FALSE,
  savePath = file.path(".")
```

Arguments

userName character, Specifies a valid user name in VGIS Oracle database.

passWord character, Specifies the password to the user name.

saveThem logical, Specifies whether the loaded data should be saved or returned. The

default value is FALSE, which means the function will not save files for you.

savePath character, Specifies the path to save your outputs, you do not need to specify

if saveThem is turned off. If missing, the current working directory will be

choosed.

Value

Depends on saveThem, if it hs turned off (i.e., FALSE). The function returns three datasets:

• contains the crews for conducting QA;

•

Author(s)

Yong Luo

 ${\tt loadVGISLossIndicator}\ \ \textit{Load the loss indicator data from Oracle database}$

Description

This function is to load the loss indicator data from VGIS Oracle database. And associated them with cluster.

8 loadVGISNotes

Usage

```
loadVGISLossIndicator(
  userName,
  passWord,
  saveThem = FALSE,
  savePath = file.path(".")
```

Arguments

userName character, Specifies a valid user name in VGIS Oracle database.

passWord character, Specifies the password to the user name.

saveThem logical, Specifies whether the loaded data should be saved or returned. The

default value is FALSE, which means the function will not save files for you.

savePath character, Specifies the path to save your outputs, you do not need to specify

if saveThem is turned off. If missing, the current working directory will be

choosed.

Value

Depends on saveThem, if it hs turned off (i.e., FALSE). The function returns three datasets:

• contains the crews for conducting QA;

•

Author(s)

Yong Luo

loadVGISNotes

Load the sql note data from Oracle database

Description

This function is to load the sample header data from VGIS Oracle database. And associated them with cluster.

Usage

```
loadVGISNotes(userName, passWord, saveThem = FALSE, savePath = file.path("."))
```

Arguments

userName character, Specifies a valid user name in VGIS Oracle database.

passWord character, Specifies the password to the user name.

saveThem logical, Specifies whether the loaded data should be saved or returned. The

default value is FALSE, which means the function will not save files for you.

savePath character, Specifies the path to save your outputs, you do not need to specify

if saveThem is turned off. If missing, the current working directory will be

choosed.

loadVGISPhoto 9

Value

Depends on saveThem, if it hs turned off (i.e., FALSE). The function returns three datasets:

• contains the crews for conducting QA;

•

Author(s)

Yong Luo

loadVGISPhoto

Load the photo data from Oracle database

Description

This function is to load the sample header data from VGIS Oracle database. And associated them with cluster.

Usage

```
loadVGISPhoto(userName, passWord, saveThem = FALSE, savePath = file.path("."))
```

Arguments

userName character, Specifies a valid user name in VGIS Oracle database.

passWord character, Specifies the password to the user name.

saveThem logical, Specifies whether the loaded data should be saved or returned. The

default value is FALSE, which means the function will not save files for you.

savePath character, Specifies the path to save your outputs, you do not need to specify

if saveThem is turned off. If missing, the current working directory will be

choosed.

Value

Depends on saveThem, if it hs turned off (i.e., FALSE). The function returns three datasets:

• contains the crews for conducting QA;

•

Author(s)

10 loadVGISRange

loadVGISPlot	Load the plot header data from Oracle database
--------------	--

Description

This function is to load the sample header data from VGIS Oracle database. And associated them with cluster.

Usage

```
loadVGISPlot(userName, passWord, saveThem = FALSE, savePath = file.path("."))
```

Arguments

userName	character, Specifies a valid user name in VGIS Oracle database.
passWord	character, Specifies the password to the user name.
saveThem	logical, Specifies whether the loaded data should be saved or returned. The default value is FALSE, which means the function will not save files for you.
savePath	character, Specifies the path to save your outputs, you do not need to specify if saveThem is turned off. If missing, the current working directory will be

choosed.

Value

Depends on saveThem, if it hs turned off (i.e., FALSE). The function returns three datasets:

• contains the crews for conducting QA;

•

Author(s)

Yong Luo

loadVGISRange	Load the range data from Oracle database

Description

This function is to load the crew data from VGIS Oracle database. And associated them with cluster.

```
loadVGISRange(userName, passWord, saveThem = FALSE, savePath = ".")
```

loadVGISSample 11

Arguments

userName character, Specifies a valid user name in VGIS Oracle database.

passWord character, Specifies the password to the user name.

saveThem logical, Specifies whether the loaded data should be saved or returned. The

default value is FALSE, which means the function will not save files for you.

savePath character, Specifies the path to save your outputs, you do not need to specify if

saveThem is turned off.

Value

Depends on saveThem, if it hs turned off (i.e., FALSE). The function returns three datasets:

• forage

• shrub

Author(s)

Yong Luo

loadVGISSample Load the sample header data from Oracle database

Description

This function is to load the sample header data from VGIS Oracle database. And associated them with cluster.

Usage

loadVGISSample(userName, passWord, saveThem = FALSE, savePath = file.path("."))

Arguments

userName character, Specifies a valid user name in VGIS Oracle database.

passWord character, Specifies the password to the user name.

saveThem logical, Specifies whether the loaded data should be saved or returned. The

default value is FALSE, which means the function will not save files for you.

savePath character, Specifies the path to save your outputs, you do not need to specify

if saveThem is turned off. If missing, the current working directory will be

choosed.

Value

Depends on saveThem, if it hs turned off (i.e., FALSE). The function returns three datasets:

• contains the crews for conducting QA;

•

Author(s)

12 loadVGISSiteTree

loadVGISSampleAccess Load the sample access data from Oracle database

Description

This function is to load the sample header data from VGIS Oracle database. And associated them with cluster

Usage

```
loadVGISSampleAccess(
  userName,
  passWord,
  saveThem = FALSE,
  savePath = file.path(".")
```

Arguments

userName character, Specifies a valid user name in VGIS Oracle database.

passWord character, Specifies the password to the user name.

saveThem logical, Specifies whether the loaded data should be saved or returned. The

default value is FALSE, which means the function will not save files for you.

savePath character, Specifies the path to save your outputs, you do not need to specify

if saveThem is turned off. If missing, the current working directory will be

choosed.

Value

Depends on saveThem, if it hs turned off (i.e., FALSE). The function returns three datasets:

• contains the crews for conducting QA;

•

Author(s)

Yong Luo

loadVGISSiteTree

Load the site/stump/small tree (3s) data from Oracle database

Description

This function is to load the sample header data from VGIS Oracle database. And associated them with cluster.

loadVGISStumpSTree 13

Usage

```
loadVGISSiteTree(
  userName,
  passWord,
  saveThem = FALSE,
  savePath = file.path(".")
```

Arguments

userName character, Specifies a valid user name in VGIS Oracle database.

passWord character, Specifies the password to the user name.

saveThem logical, Specifies whether the loaded data should be saved or returned. The

default value is FALSE, which means the function will not save files for you.

savePath character, Specifies the path to save your outputs, you do not need to specify

if saveThem is turned off. If missing, the current working directory will be

choosed.

Value

Depends on saveThem, if it hs turned off (i.e., FALSE). The function returns three datasets:

• contains the crews for conducting QA;

•

Author(s)

Yong Luo

loadVGISStumpSTree

Load the stump and small tree data from Oracle database

Description

This function is to load the sample header data from VGIS Oracle database. And associated them with cluster.

```
loadVGISStumpSTree(
  userName,
  passWord,
  saveThem = FALSE,
  savePath = file.path(".")
)
```

14 loadVGISSuccession

Arguments

userName character, Specifies a valid user name in VGIS Oracle database.

passWord character, Specifies the password to the user name.

saveThem logical, Specifies whether the loaded data should be saved or returned. The

default value is FALSE, which means the function will not save files for you.

savePath character, Specifies the path to save your outputs, you do not need to specify

if saveThem is turned off. If missing, the current working directory will be

choosed.

Value

Depends on saveThem, if it hs turned off (i.e., FALSE). The function returns three datasets:

• contains the crews for conducting QA;

•

Author(s)

Yong Luo

loadVGISSuccession Load the card 16 succession interpretations (eo) data from Oracle

database

Description

This function is to load the sample header data from VGIS Oracle database. And associated them with cluster.

Usage

```
loadVGISSuccession(
  userName,
  passWord,
  saveThem = FALSE,
  savePath = file.path(".")
```

Arguments

userName character, Specifies a valid user name in VGIS Oracle database.

passWord character, Specifies the password to the user name.

saveThem logical, Specifies whether the loaded data should be saved or returned. The

default value is FALSE, which means the function will not save files for you.

savePath character, Specifies the path to save your outputs, you do not need to specify

if saveThem is turned off. If missing, the current working directory will be

choosed.

loadVGISTreeC 15

Value

Depends on saveThem, if it hs turned off (i.e., FALSE). The function returns three datasets:

• contains the crews for conducting QA;

•

Author(s)

Yong Luo

loadVGISTreeC

Load the full/enhanced/H-enhanced tree data from Oracle database

Description

This function is to load the sample header data from VGIS Oracle database. And associated them with cluster.

Usage

```
loadVGISTreeC(userName, passWord, saveThem = FALSE, savePath = file.path("."))
```

Arguments

userName character, Specifies a valid user name in VGIS Oracle database.

passWord character, Specifies the password to the user name.

saveThem logical, Specifies whether the loaded data should be saved or returned. The

default value is FALSE, which means the function will not save files for you.

savePath character, Specifies the path to save your outputs, you do not need to specify

if saveThem is turned off. If missing, the current working directory will be

choosed.

Value

Depends on saveThem, if it hs turned off (i.e., FALSE). The function returns three datasets:

• contains the crews for conducting QA;

•

Author(s)

16 loadVGISVeg

loadVGISTreeI	Load the count tree data from Oracle database	

Description

This function is to load the sample header data from VGIS Oracle database. And associated them with cluster.

Usage

```
loadVGISTreeI(userName, passWord, saveThem = FALSE, savePath = file.path("."))
```

Arguments

userName	character, Specifies a valid user name in VGIS Oracle database.
passWord	character, Specifies the password to the user name.
saveThem	logical, Specifies whether the loaded data should be saved or returned. The default value is FALSE, which means the function will not save files for you.
savePath	character, Specifies the path to save your outputs, you do not need to specify if saveThem is turned off. If missing, the current working directory will be choosed.

Value

Depends on saveThem, if it hs turned off (i.e., FALSE). The function returns three datasets:

• contains the crews for conducting QA;

•

Author(s)

Yong Luo

loadVGISVeg	Load the veg data from Oracle database
-------------	--

Description

This function is to load the sample header data from VGIS Oracle database. And associated them with cluster.

```
loadVGISVeg(userName, passWord, saveThem = FALSE, savePath = file.path("."))
```

tablesInGYS 17

Arguments

userName character, Specifies a valid user name in VGIS Oracle database.

passWord character, Specifies the password to the user name.

saveThem logical, Specifies whether the loaded data should be saved or returned. The

default value is FALSE, which means the function will not save files for you.

savePath character, Specifies the path to save your outputs, you do not need to specify

if saveThem is turned off. If missing, the current working directory will be

choosed.

Value

Depends on saveThem, if it hs turned off (i.e., FALSE). The function returns three datasets:

• contains the crews for conducting QA;

•

Author(s)

Yong Luo

tablesInGYS Obtain all the table names (and column names) in GYS

Description

This function is to load all the table names from GYS database.

Usage

```
tablesInGYS(userName, passWord, columnNames = TRUE)
```

Arguments

userName character, Specifies a valid user name in GYS Oracle database.

passWord character, Specifies the password to the user name.

columnNames logic, Obtain column names in each table. Default is TRUE.

Value

a data table

Author(s)

Yong Luo

See Also

tablesInISMC and tablesInVGIS

18 tablesInVGIS

tablesInISMC	Obtain all the table names (and column names) in ISMC
--------------	---

Description

This function is to load all the table names from ISMC database.

Usage

```
tablesInISMC(userName, passWord, env, columnNames = TRUE)
```

Arguments

userName character, Specifies a valid user name in ISMC Oracle database.

passWord character, Specifies the password to the user name.

env character, Specifies which environment the data reside. Currently, the function

supports INT (intergration) and {TEST(test) environment.

Value

a data table

Author(s)

Yong Luo

See Also

tablesInGYS and tablesInVGIS

tablesInVGIS	Obtain all the table names (and column names) in VGIS

Description

This function is to load all the table names from VGIS database.

Usage

```
tablesInVGIS(userName, passWord, columnNames = TRUE)
```

Arguments

userName character, Specifies a valid user name in VGIS Oracle database.

passWord character, Specifies the password to the user name.

columnNames logic, Obtain column names in each table. Default is TRUE.

Value

a data table

tablesInVGIS 19

Author(s)

Yong Luo

See Also

tablesInISMC and tablesInGYS

Index

```
loadGYS, 2
loadISMC_all, 2
loadISMC_bySampleType, 3
loadISMC_bySiteName, 4
loadVGIS, 5
loadVGISCrew, 5
loadVGISCWD, 6
loadVGISEcology, 7
loadVGISLossIndicator, 7
loadVGISNotes, 8
{\tt loadVGISPhoto}, {\color{red} 9}
loadVGISPlot, 10
loadVGISRange, 10
loadVGISSample, 11
loadVGISSampleAccess, 12
loadVGISSiteTree, 12
loadVGISStumpSTree, 13
loadVGISSuccession, 14
loadVGISTreeC, 15
loadVGISTreeI, 16
loadVGISVeg, 16
tablesInGYS, 17, 18, 19
tablesInISMC, 17, 18, 19
tablesInVGIS, 17, 18, 18
```