Package 'FAIBOracle'

October 23, 2020

Title Load ground sample data from FAIB's databases

Version 0.1

Description Load ground sample data from FAIB's three oracle databases: VGIS, GYS and ISMC.

License Apache License (== 2.0) | file LICENSE

Encoding UTF-8

LazyData true

Roxygen list(markdown = TRUE)

RoxygenNote 7.1.0

Imports dplyr,
   data.table,
   rmarkdown,
   ROracle,
   DBI,
   openxlsx

Suggests knitr

R topics documented:

---

loadGYS   *Load the data from GYS Oracle database*

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

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

Usage

```
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, Trees, 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, IntegratedPlot-Center, ReferencePoint and TiePoint. Note that if the save format is xlsx, all the tables will be saved into one workbook.

Author(s)

Yong Luo

---

loadVGIS *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.

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)

Yong Luo

---

loadVGISEcology   *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

---

loadVGISLossIndicator   *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.

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.

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)

Yong Luo

---

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.

Usage

```
loadVGISRange(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.

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)

Yong Luo

---

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.

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.

Usage

```
loadVGISStumpSTree(
  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

---

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.

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)

Yong Luo

---

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.

Usage

```
loadVGISVeg(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

---

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

---

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

Author(s)

Yong Luo

See Also

[tablesInISMC](#) and [tablesInGYS](#)

Index