# Package 'Ulysses'

May 6, 2024

```
Title Automate OHDSI Study Setup
Version 0.0.5
Description
      Automates setup of OHDSI study and provides functions to assist on improving organization
      and communication of a study.
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      rlang,
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VignetteBuilder knitr

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### Description

Add a line to the config file

### Usage

```
addConfig(block, database = block, projectPath = here::here(), open = TRUE)
```

### **Arguments**

block the name of the config block

database the name of the database for the block, default to block name

projectPath the path to the project

open toggle on whether the file should be opened

addDataSources Function to add study data sources

### Description

Function to add study data sources

### Usage

```
addDataSources(..., projectPath = here::here())
```

### Arguments

a list of data sources to add projectPath the path to the project

### Value

4 addStudyMember

addLinks

Function to add study links

### Description

Function to add study links

### Usage

```
addLinks(..., projectPath = here::here())
```

### Arguments

```
... a list of links to add projectPath the path to the project
```

### Value

invisible studyYml, prints specifying what changes happened

 ${\it addStudyMember}$ 

Function to add a study member

### Description

Function to add a study member

### Usage

```
addStudyMember(name, email = NULL, projectPath = here::here())
```

### Arguments

name the name of the study member email the study member's email projectPath the path to the project

### Value

addTags 5

addTags

Function to add study tags

### Description

Function to add study tags

### Usage

```
addTags(..., projectPath = here::here())
```

#### **Arguments**

```
a list of study tags to add projectPath the path to the project
```

#### Value

invisible studyYml, prints specifying what changes happened

buildStudyHub

Function to build study hub

### Description

Function to build study hub

#### Usage

```
buildStudyHub(
  projectPath = here::here(),
  logoPath = NULL,
  footer = NULL,
  backgroundColor = "#336B91"
)
```

#### **Arguments**

projectPath path to ohdsi study

logoPath a path to a logo png to use in the quarto website, defaults to ohdsi logo from

Ulysses inst.

footer add a footer to the study Hub

backgroundColor

change background color, defaults to OHDSI blue #336B91

### Value

builds a \_site folder in documenation that holds the html website

6 cohortManifest

checkConfig

check if config file is in ohdsi study

#### **Description**

check if config file is in ohdsi study

#### Usage

checkConfig()

checkDatabaseCredential

Function to check the database credential

### Description

Function to check the database credential

### Usage

checkDatabaseCredential(cred, db, keyringName, verbose = TRUE)

### **Arguments**

cred the credential to set (i.e dbms, user, connectionString)

db the database prefix for the credential

keyringName the name of the keyringName for the credential check, this will be the keyring

named

verbose toggle option to print console message

cohortManifest

Function that lists all cohort definitions loaded into the study

### Description

Function that lists all cohort definitions loaded into the study

#### Usage

```
cohortManifest(projectPath = here::here())
```

### **Arguments**

projectPath the path to the project

#### Value

tibble of the cohorts in the project

defaultCredentials 7

defaultCredentials Function to list default credentials

#### **Description**

This function builds the standard credential set needed for most connections. If another credential is needed use c() to bind the character vector.

### Usage

```
defaultCredentials()
```

getHadesWideLock

Function to grab the hades wide lock file

#### **Description**

Function to grab the hades wide lock file

#### Usage

```
getHadesWideLock(version, projectPath = here::here())
```

#### **Arguments**

version the version of the hades wide lock file to use

projectPath the path to the project

importAtlasCohorts Function to import Atlas cohorts into Ulysses

#### **Description**

Function to import Atlas cohorts into Ulysses

### Usage

```
importAtlasCohorts(cohortIds, keyringName = "atlas", keyringPassword = "ohdsi")
```

### Arguments

cohortIds the atlas ids of the cohorts you want to import

keyringName the name of the keyring to save credentials. Defaults to atlas

 ${\tt keyringPassword}$ 

the password for the keyring to save credentials. Defaults to ohdsi

#### Value

saves circe json of ids given to the cohorts/json folder of Ulysses

8 importImages

```
importAtlasConceptSets
```

Function to import Atlas concept sets into Ulysses

#### **Description**

Function to import Atlas concept sets into Ulysses

### Usage

```
importAtlasConceptSets(
  conceptSetIds,
  keyringName = "atlas",
  keyringPassword = "ohdsi"
)
```

#### **Arguments**

conceptSetIds the atlas ids of the concept sets you want to import

keyringName the name of the keyring to save credentials. Defaults to atlas

keyringPassword

the password for the keyring to save credentials. Defaults to ohdsi

#### Value

saves circe json of ids given to the cohorts/conceptSets/json folder of Ulysses

importImages

Function to import a folder of images for a study hub

### Description

Function to import a folder of images for a study hub

#### Usage

```
importImages(imageFolder, projectPath = here::here())
```

#### **Arguments**

```
imageFolder the file path for an image folder projectPath path to ohdsi study
```

#### Value

invisible return of the image file folder

initConfig 9

#### **Description**

Function to create a config.yml file

### Usage

```
initConfig(
  block = "BlockName",
  database = "DatabaseName",
  withKeyring = FALSE,
  projectPath = here::here(),
  open = TRUE
)
```

### **Arguments**

block the name of the config block, defaults to BlockName

database the name of the database for the block, default to DatabaseName

withKeyring should the config file use keyring, default FALSE

projectPath the path to the project

open toggle on whether the file should be opened

```
initConfigUsingKeyring
```

Function to initialize config.yml using keyring

### Description

Function to initialize config.yml using keyring

#### Usage

```
initConfigUsingKeyring(dbIds, projectPath = here::here(), open = TRUE)
```

### Arguments

dbIds the dbIds to add to the config file

projectPath the path to the project

initConfigUsingTable Function to import credentials in stored csv to study config.yml

#### **Description**

Function to import credentials in stored csv to study config.yml

#### Usage

```
initConfigUsingTable(
  credFile = fs::path_home("shhh.csv"),
  projectPath = here::here(),
  open = TRUE
)
```

#### **Arguments**

credFile a credential.csv file stored in a secure location

projectPath the path to the project

open toggle on whether the file should be opened

initCredentialsKeyring

Function to set multi credentials

### Description

Function to set multi credentials

### Usage

```
initCredentialsKeyring(db_id, keyringPassword = "ulysses", forceCheck = TRUE)
```

### Arguments

db\_id the database id to distinguish the set of credentials

keyringPassword

the password for the keyring. Defaults to ulysses.

forceCheck a toggle that will print blurred credentials to check credential

initCredentialsTable 11

initCredentialsTable Function to start a credential table

### Description

Function to start a credential table

#### Usage

```
initCredentialsTable(
  db_id,
  db_full_name = db_id,
  dbms,
  user,
  password,
  connection_string,
  cdm_database_schema,
  work_database_schema,
  temp_emulation_schema = work_database_schema)
```

#### **Arguments**

db\_id an id or shortName for a database. Please use snakecase  ${\sf db\_full\_name}$ the full name of the database. If not specified defaults to db\_id the dbms for your database. Can be either redshift, postgres, snowflake, sql dbms server or oracle the user name to connect to the database user password the password to connect to the databse connection\_string a jdbc connection string to use with DatabaseConnector cdm\_database\_schema the cdm database schema of the datbase you want to use work\_database\_schema a scratch schema the user has read and write access to in order to build cohort temp\_emulation\_schema a schema required for oracle and snowflake to make temp tables.

#### Value

writes a csv to your home directory called shhh.csv storing your database credentials

12 makeAnalysisTask

isOhdsiStudy

Function to check if the directory is an ohdsi project

#### **Description**

Function to check if the directory is an ohdsi project

#### Usage

```
isOhdsiStudy(basePath)
```

### **Arguments**

basePath

the path of the directory

 ${\tt make Analysis Plan}$ 

Function to create a SAP

### Description

Function to create a SAP

#### Usage

```
makeAnalysisPlan(projectPath = here::here(), open = TRUE)
```

### Arguments

projectPath the path to the project

open toggle on whether the file should be opened

makeAnalysisTask

Function to create a pipeline task as a Rmd file

### Description

Function to create a pipeline task as a Rmd file

#### Usage

```
makeAnalysisTask(
  taskName,
  configBlock = NULL,
  date = lubridate::today(),
  projectPath = here::here(),
  open = TRUE
```

makeCaprScript 13

#### **Arguments**

taskName The name of the analysis script

configBlock the name of the config block to use for the script date the date the script was built, default to today's date

projectPath the path to the project

open toggle on whether the file should be opened

makeCaprScript

Function to create a pipeline task as an R file

#### **Description**

Function to create a pipeline task as an R file

### Usage

```
makeCaprScript(
   scriptName,
   configBlock = NULL,
   date = lubridate::today(),
   projectPath = here::here(),
   open = TRUE
)
```

#### **Arguments**

scriptName The name of the capr file that is being created configBlock the name of the config block to use for the script date the date the script was built, default to today's date

projectPath the path to the project

open toggle on whether the file should be opened

makeCohortDetails

Function to create the cohort details for the study

#### **Description**

The cohort details file is a document that provides a human-readable version of the circe cohort definitions used in the study. This function targets the cohortsToCreate folder and makes a quarto of the cohort details.

#### Usage

```
makeCohortDetails(projectPath = here::here(), open = TRUE)
```

14 makeHowToRun

### **Arguments**

projectPath the path to the project

open toggle on whether the file should be opened

#### Value

writes a CohortDetails.qmd file to the documentation folder

makeContributionGuidelines

R Markdown file to make the contribution guidelines

#### **Description**

R Markdown file to make the contribution guidelines

### Usage

```
makeContributionGuidelines(projectPath = here::here(), open = TRUE)
```

### Arguments

projectPath the path to the project

open toggle on whether the file should be opened

makeHowToRun

Function to create a HowToRun file

### Description

Function to create a HowToRun file

#### Usage

```
makeHowToRun(projectPath = here::here(), open = TRUE)
```

### **Arguments**

projectPath the path to the project

makeInternals 15

makeInternals

Function to create a pipeline task as an R file

### Description

Function to create a pipeline task as an R file

#### Usage

```
makeInternals(
  internalsName,
  date = lubridate::today(),
  projectPath = here::here(),
  open = TRUE
)
```

#### **Arguments**

internal sName The name of the internals file that is being created date the date the script was built, default to today's date

projectPath the path to the project

open toggle on whether the file should be opened

makeKeyringSetup

Function to create a config.yml file

#### **Description**

Function to create a config.yml file

### Usage

```
makeKeyringSetup(
  database = NULL,
  configBlock = NULL,
  secret = NULL,
  projectPath = here::here(),
  open = TRUE
)
```

#### **Arguments**

database the name of the database for the project, can be NULL configBlock the name of the configBlock to use, can be NULL

secret a keyword to use as the keyring password to access credentials, if NULL pass-

word is ulysses

projectPath the path to the project

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makeMigrationScript

Function to create a migration script

### Description

Function to create a migration script

### Usage

```
makeMigrationScript(
   scriptName,
   date = lubridate::today(),
   projectPath = here::here(),
   open = TRUE
)
```

#### **Arguments**

scriptName The name of the analysis script

date the date the script was built, default to today's date

projectPath the path to the project

open toggle on whether the file should be opened

makeNews

Function to create a NEWS file

### Description

Function to create a NEWS file

### Usage

```
makeNews(projectPath = here::here(), open = TRUE)
```

### Arguments

projectPath the path to the project

makeReadMe 17

makeReadMe

Function to create a README file

#### **Description**

Function to create a README file

#### Usage

```
makeReadMe(projectPath = here::here(), open = TRUE)
```

### **Arguments**

projectPath the path to the project

open toggle on whether the file should be opened

makeResultsReport

Quarto file to make a results report

#### **Description**

Quarto file to make a results report

#### Usage

```
makeResultsReport(projectPath = here::here(), open = TRUE)
```

#### **Arguments**

projectPath the path to the project

open toggle on whether the file should be opened

 ${\tt makeStrategusTask}$ 

Function to create a pipeline task as a Rmd file

### Description

Function to create a pipeline task as a Rmd file

#### Usage

```
makeStrategusTask(
  taskName,
  configBlock = NULL,
  date = lubridate::today(),
  projectPath = here::here(),
  open = TRUE
)
```

18 newOhdsiStudy

### **Arguments**

taskName The name of the analysis script

configBlock the name of the config block to use for the script
date the date the script was built, default to today's date

projectPath the path to the project

open toggle on whether the file should be opened

makeWebApiScript

Function to create a pipeline task as an R file

### Description

Function to create a pipeline task as an R file

### Usage

```
makeWebApiScript(
  keyringName = NULL,
  keyringPassword = NULL,
  projectPath = here::here(),
  open = TRUE
)
```

#### **Arguments**

keyringName The name of the keyring for the study, if null defaults to dir basename

keyringPassword

The password for the keyring, if null defauls to ohdsi

projectPath the path to the project

open toggle on whether the file should be opened

newOhdsiStudy

Function that initializes a new ohdsi study project environment

### Description

Function that initializes a new ohdsi study project environment

openCredentials 19

#### Usage

```
newOhdsiStudy(
  path,
  projectName = basename(path),
  studyInfo = setStudyInfo(id = basename(path)),
  authors = setStudyAuthors(),
  timeline = setStudyTimeline(),
  about = setStudyDescription(),
  links = setStudyLinks(),
  tags = setStudyTags(),
  verbose = TRUE,
  openProject = TRUE
)
```

#### **Arguments**

path

projectName the name of the project studyInfo a list object identifying the title, type and study version, defaults to setStudyInfo,

see documentation

the path where the project sits

authors a list object identifying the lead and developer authors names and emails, de-

faults to setStudyAuthors, see documentation.

timeline a list object identifying the study status, start and end date, defaults to setStudyTimeline,

see documentation

about a list object identifying the study description, therapeutic area and databases,

defaults to setStudyDescription, see documentation

links a list object identifying the linked resources of the study, defaults to setStudyLinks,

see documentation

a list object identifying tags to the study, defauls to setStudyTags, see docutags

mentation

verbose whether the function should provide steps, default TRUE

openProject should the project be opened if created

openCredentials Function to open the credentials table to edit or peak

#### **Description**

Function to open the credentials table to edit or peak

#### Usage

```
openCredentials(credFile = fs::path_home("shhh.csv"))
```

#### **Arguments**

credFile the path to shhh.csv

#### Value

tibble of credentials

previewStudyHub

Function to preview study hub

### Description

Function to preview study hub

### Usage

```
previewStudyHub(projectPath = here::here())
```

### **Arguments**

```
projectPath path to ohdsi study
```

#### Value

previews study hub in browser

```
publishStudyToRepository
```

Publish Study to Repo

### **Description**

Publish Study to Repo

### Usage

```
publishStudyToRepository(repoUrl, message = "Initial commit for OHDSI study")
```

### Arguments

repoUrl an https url for the repo remote. Example: https://github.com/Org/repo.git

message the commit message for your OHDSI study

retrieveStudySettings 21

retrieveStudySettings Function to convert yml into a specified list format

### Description

Function to convert yml into a specified list format

#### Usage

```
retrieveStudySettings(projectPath)
```

#### **Arguments**

```
projectPath the path to the project
```

#### Value

the study yml as an R object (list)

run Task In Background

Function to run study task in background

### Description

Function to run study task in background

#### Usage

```
runTaskInBackground(taskFile, configBlock, projectPath = here::here())
```

#### **Arguments**

taskFile a task file to run in the background configBlock the configBlock to use in the study

projectPath the path to the project

### Value

invisble return, launches background job

22 setCredential

setAtlasCredentials Function to set atlas credentials for keyring

### Description

Function to set atlas credentials for keyring

#### Usage

```
setAtlasCredentials(keyringName = "atlas", keyringPassword = "ohdsi")
```

#### **Arguments**

keyringName the name of the keyring to save credentials. Defaults to atlas

keyringPassword

the password for the keyring to save credentials. Defaults to ohdsi

#### Value

a series of dialog box inputs for the webapi credentials including the baseUrl, authMethod, user and password

setCredential

Function to set single credential

#### **Description**

Function to set single credential

#### Usage

```
setCredential(cred, db, keyringName, keyringPassword, forceCheck = TRUE)
```

#### **Arguments**

cred the credential to set (i.e dbms, user, connectionString)

db the database prefix for the credential

keyringName the name of the keyringName for the credential set, this will be the keyring

namec

keyringPassword

the password for the keyring.

forceCheck a toggle that will print blurred credentials to check credential

setMultipleCredentials 23

```
setMultipleCredentials
```

Function to set multi credentials

### Description

Function to set multi credentials

#### Usage

```
setMultipleCredentials(
  creds,
  db,
  keyringName,
  keyringPassword,
  forceCheck = TRUE
)
```

### Arguments

creds a vector of credentials to set (i.e dbms, user, connectionString). See defaultCre-

dentials on building set

db the database prefix for the credential

keyringName the name of the keyringName where the credential will be set

keyringPassword

the password for the keyring.

forceCheck a toggle that will print blurred credentials to check credential

setStrategusInstantiatedFolder

Function to set strategus instantiated folder

### Description

Function to set strategus instantiated folder

#### Usage

```
setStrategusInstantiatedFolder(folderName, root = NULL)
```

### **Arguments**

folderName the name of the instantiated folder

root the root path to the folder, defaults to the home path

24 setStudyDescription

setStudyAuthors

Function to set study authors

#### **Description**

Function to set study authors

### Usage

```
setStudyAuthors(
  developer = Sys.getenv("USERNAME"),
  developerEmail = glue::glue("{developer}@ohdsi.org"),
  lead = "Ulysses",
  leadEmail = "Ulysses@ohdsi.org"
)
```

#### **Arguments**

developer specify the study developer, default to system variable

developerEmail the email of the developer
lead specify the lead of the study
leadEmail specify the lead of the study email

#### Value

a list containing study authors

setStudyDescription

Function to set study description

#### **Description**

Function to set study description

### Usage

```
setStudyDescription(
  desc = "Provide a 1 to 2 sentence description of your study. Be concise.",
  ta = "Specify the therapeutic area of the study",
  dataSources = list("Truven MarketScan", "Optum Market Clarity")
)
```

#### **Arguments**

desc a brief description of the study

ta a character string of the therapeutic area

dataSources a list of data sources

#### Value

a list containing study description info

setStudyInfo 25

setStudyInfo

Function to set study info

#### Description

Function to set study info

### Usage

```
setStudyInfo(
  id,
  title = id,
  type = c("Characterization"),
  version = "0.0.0.999"
)
```

### **Arguments**

id specify the study idtitle specify the study titletype specify the type of studyversion specify the study version

#### Value

a list containing study info

setStudyKeyring

Function to set study keyring

### Description

Function to set study keyring

### Usage

```
setStudyKeyring(keyringName, keyringPassword)
```

### **Arguments**

```
keyringName the name of the keyring, this should be the reponame for the study keyringPassword a password to access the study keyring
```

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setStudyLinks

Function to set study links

### Description

Function to set study links

### Usage

```
setStudyLinks(...)
```

### **Arguments**

... a series of resource links for the study

### Value

a list containing links to resources

 ${\tt setStudyTags}$ 

Function to set study tags

### Description

Function to set study tags

### Usage

```
setStudyTags(...)
```

### Arguments

... a series of tags for the study

### Value

a list containing study tags

setStudyTimeline 27

 ${\tt setStudyTimeline}$ 

Function to set study timeline

#### **Description**

Function to set study timeline

### Usage

```
setStudyTimeline(
  status = "Started",
  startDate = as.character(lubridate::today()),
  endDate = as.character(lubridate::today() + (365 * 2))
)
```

### Arguments

status the study status, default is started

startDate the start of the study, defaults to todays date

endDate the date specifying the end (or expected end) of the study

#### Value

a list containing study timeline

updateDeveloperInfo

Function to update developer Infor

### Description

Function to update developer Infor

### Usage

```
updateDeveloperInfo(newName, newEmail, projectPath = here::here())
```

#### **Arguments**

newName change the developer name newEmail change the developer email

#### Value

update Lead Info

Function to update lead Infor

### Description

Function to update lead Infor

### Usage

```
updateLeadInfo(newName, newEmail, projectPath = here::here())
```

#### **Arguments**

newName change the lead name newEmail change the lead email

#### Value

invisible studyYml, prints specifying what changes happened

 ${\tt updateStudyDescription}$ 

Function to update study description

### Description

Function to update study description

### Usage

```
updateStudyDescription(newStudyDescription, projectPath = here::here())
```

### **Arguments**

```
projectPath the path to the project newStudyVersion the new study description
```

#### Value

updateStudyEndDate 29

update Study End Date

Function to update study end date

### Description

Function to update study end date

### Usage

```
updateStudyEndDate(newEndDate, projectPath = here::here())
```

#### **Arguments**

```
newEndDate the new end date of the study, suggest format YYYY-MM-DD projectPath the path to the project
```

#### Value

invisible studyYml, prints specifying what changes happened

update Study Status

Function to update study status

### Description

Function to update study status

### Usage

```
updateStudyStatus(
  newStudyStatus = c("Started", "In-Progress", "Stopped", "Completed"),
  projectPath = here::here()
)
```

### Arguments

```
newStudyStatus the new status of the study, accepts Started, In-Progress, Stopped, Completed projectPath the path to the project
```

#### Value

30 updateStudyVersion

update Study Title

Function to update study title

### Description

Function to update study title

### Usage

```
updateStudyTitle(newStudyTitle, projectPath = here::here())
```

### Arguments

```
newStudyTitle the new study title projectPath the path to the project
```

#### Value

invisible studyYml, prints specifying what changes happened

 ${\tt updateStudyVersion}$ 

Function to update study version

### Description

Function to update study version

### Usage

```
updateStudyVersion(newStudyVersion, projectPath = here::here())
```

### **Arguments**

```
{\tt newStudyVersion}
```

the new study version

projectPath the path to the project

### Value

updateTherapeuticArea

updateTherapeuticArea Function to update study therapeutic area

### **Description**

Function to update study therapeutic area

#### Usage

```
updateTherapeuticArea(newTA, projectPath = here::here())
```

#### **Arguments**

newTA the new study therapeutic area

projectPath the path to the project

#### Value

invisible studyYml, prints specifying what changes happened

zipResults

Funciton to compress results into a zip file

### Description

Funciton to compress results into a zip file

### Usage

```
zipResults(databaseName, projectPath = here::here())
```

### **Arguments**

 ${\tt databaseName} \qquad {\tt the \ name \ of \ the \ database \ folder \ to \ compress}$ 

projectPath the path to the project

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