

# Package ‘Ulysses’

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**Title** Automate OHDSI Study Setup

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**Description**

Automates setup of OHDSI study and provides functions to assist on improving organization and communication of a study.

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---

*addConfig*

*Add a line to the config file*

---

### **Description**

Add a line to the config file

### **Usage**

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

### **Arguments**

<code>block</code>	the name of the config block
<code>database</code>	the name of the database for the block, default to block name
<code>projectPath</code>	the path to the project
<code>open</code>	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**

<code>...</code>	a list of data sources to add
<code>projectPath</code>	the path to the project

### **Value**

invisible studyYml, prints specifying what changes happened

---

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

---

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**

invisible studyYml, prints specifying what changes happened

---

addTags	<i>Function to add study tags</i>
---------	-----------------------------------

---

**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	<i>Function to build study hub</i>
---------------	------------------------------------

---

**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 documentation that holds the html website

---

checkConfig	<i>check if config file is in ohdsi study</i>
-------------	---

---

**Description**

check if config file is in ohdsi study

**Usage**

checkConfig()

---

checkDatabaseCredential	<i>Function to check the database credential</i>
-------------------------	--

---

**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 namec
verbose	toggle option to print console message

---

cohortManifest	<i>Function that lists all cohort definitions loaded into the study</i>
----------------	---

---

**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      *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()
```

---

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

---

### Description

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

### Usage

```
importCredentialsToConfig(credFile, 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

---

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	<i>Function to create a config.yml file</i>
------------	---

---

**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

---

isOhdsiStudy	<i>Function to check if the directory is an ohdsi project</i>
--------------	---

---

**Description**

Function to check if the directory is an ohdsi project

**Usage**

```
isOhdsiStudy(basePath)
```

**Arguments**

basePath	the path of the directory
----------	---------------------------



---

makeAnalysisPlan      *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

---

makeAnalysisScript      *Function to create a pipeline task as a Rmd file*

---

**Description**

Function to create a pipeline task as a Rmd file

**Usage**

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

**Arguments**

scriptName	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)
```

### 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
open	toggle on whether the file should be opened

---

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**

internalsName	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 password is ulysses
projectPath	the path to the project
open	toggle on whether the file should be opened

---

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	<i>Function to create a NEWS file</i>
----------	---------------------------------------

---

**Description**

Function to create a NEWS file

**Usage**

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

**Arguments**

projectPath	the path to the project
open	toggle on whether the file should be opened

---

makeReadMe	<i>Function to create a README file</i>
------------	---

---

**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

---

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 defaults to ohdsi
projectPath	the path to the project
open	toggle on whether the file should be opened

---

moduleTable	<i>Function to retrieve table of modules</i>
-------------	--

---

**Description**

Function to retrieve table of modules

**Usage**

```
moduleTable(projectPath = here::here())
```

**Arguments**

projectPath      the path to the project

---

newOhdsiStudy	<i>Function that initializes a new ohdsi study project environment</i>
---------------	--

---

**Description**

Function that initializes a new ohdsi study project environment

**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	the path where the project sits
projectName	the name of the project
studyInfo	a list object identifying the title, type and study version, defaults to setStudyInfo, see documentation
authors	a list object identifying the lead and developer authors names and emails, defaults 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 <code>setStudyDescription</code> , see documentation
links	a list object identifying the linked resources of the study, defaults to <code>setStudyLinks</code> , see documentation
tags	a list object identifying tags to the study, defaults to <code>setStudyTags</code> , see documentation
verbose	whether the function should provide steps, default TRUE
openProject	should the project be opened if created

---

`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 *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)

---

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

*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 defaultCredentials 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

---

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             *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 id
title	specify the study title
type	specify the type of study
version	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

---

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

---

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                      *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**

invisible studyYml, prints specifying what changes happened

---

updateLeadInfo     *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

---

`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**

invisible studyYml, prints specifying what changes happened

---

`updateStudyEndDate`*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

---

updateStudyStatus      *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**

invisible studyYml, prints specifying what changes happened

---

updateStudyTitle      *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



---

updateStudyVersion     *Function to update study version*

---

**Description**

Function to update study version

**Usage**

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

**Arguments**

newStudyVersion     the new study version  
projectPath     the path to the project

**Value**

invisible studyYml, prints specifying what changes happened

---

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`*Function to compress results into a zip file*

---

**Description**

Function to compress results into a zip file

**Usage**

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

**Arguments**

<code>databaseName</code>	the name of the database folder to compress
<code>projectPath</code>	the path to the project

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