# CEDESK – Setup

Dominik Knoll [d.knoll@skoltech.ru](mailto:d.knoll@skoltech.ru) – January 9, 2018

Software Release 1.40

[CEDESK.GITHUB.IO](https://cedesk.github.io)

*CEDESK is a tool to facilitate co-located collaborative model based conceptual design for space missions and complex systems. Multidisciplinary teams of engineers and scientists can use it for working together with a shared parametric model of any type of system.*

## Two step process

The installation of the tool is done in two steps. First set up the database where the repository will be stored. Second the client application which will use the database.

## 1. Repository – Database

Make sure MySQL server is installed on a machine, that is reachable from within the network where the clients will be connected (without firewall). The clients will use TCP connections on port 3360 to connect to the server.

> If the server is not installed, obtain the installation package (version 5.7 or 8.0) from
> [https://dev.mysql.com/downloads/mysql/](https://dev.mysql.com/downloads/mysql/)
> and perform the installation.

Note the servers `hostname`, either as fully qualified domain name (e.g. cedesk-server.example.com) or by IP address.

Connect to the server as administrator (`root`) using any database management tool (e.g. MySQL Workbench, downloadable from [https://dev.mysql.com/downloads/workbench/](https://dev.mysql.com/downloads/workbench/) )

Create a database schema for the CEDESK repository, and a user which is able to access it.

These lines of SQL code will do that:

```
CREATE SCHEMA `cedesk_prod` DEFAULT CHARACTER SET utf8;

CREATE USER 'cedesk'@'%' IDENTIFIED BY 'cedesk';

GRANT ALL PRIVILEGES ON cedesk_prod.* TO 'cedesk'@'%';
```

### Remote Connectivity

In order for CEDESK clients to be able to use the database as repository, a network connection is necessary via TCP on port 3306.
Make sure that:
1. the firewall eventually installed on the server machine has the TCP port 3306 enabled for incoming traffic.
2. the firewall eventually installed on the client computer does not block connections.
3. the network routers/firewalls between the two machines might block the connection. E.g. the server may only be reachable from a certain network.

TEST

To check 1,2,3 you can use a command line on the client.

Type the command: `telnet 3306 <server IP>`

If this connection fails, the firewalls need to be properly configured.

If the connection can be established, that's positive. To close, press `CTR+C`.

## 2. Client – Installation packages

Platforms

- Windows       cedesk-<version>_<date>_<time>.exe
- MacOS          cedesk-<version>_<date>_<time>.dmg
- Linux, Debian  cedesk-<version>_<date>_<time>.deb

Launch the installation in the way common for the respective platform.

On Windows the application is immediately started after installation, but it shows an error and we need to close it.

### 2.a. Repository initialization

When the repository is empty, because no client has accessed it so far, we need to enable a client to initialize the database scheme.

This only needs to be done once for per server!

Go to the users home directory, as following for different platforms.

- Windows       `c:\users\my-ser\`
- MacOS          `/Users/my-user/`
- Linux, Debian  `/home/my-user/`

Open directory "`.cedesk`", create it if absent.

Open the file "`application.settings`", create it if it does not exist.

Copy or replace the following lines in that file, while replacing `hostname` with the actual server's `hostname or IP address.` In case the DB was installed on the same machine, the `hostname` is "localhost"

`repository.host=hostname`

`repository.schema.create=true`

`project.user.name=admin`
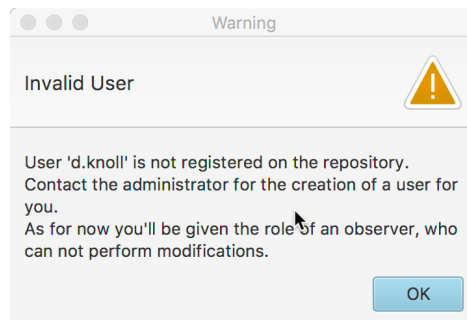
### 2.b. Repository connection

Upon first start of the client application on a machine, the settings for the repository connection need to be done accordingly.

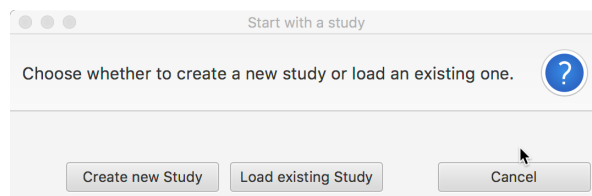The application shows the following dialogue.
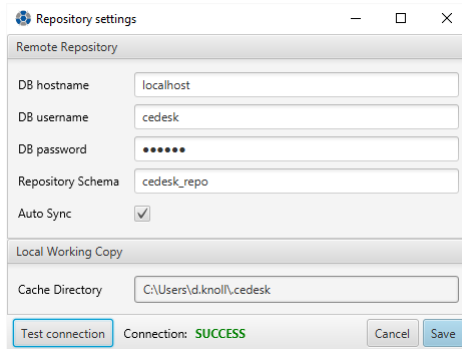
Insert the server's *hostname* and press OK.

After that, the application shows a warning, that the current user, does not exist yet in the user list.
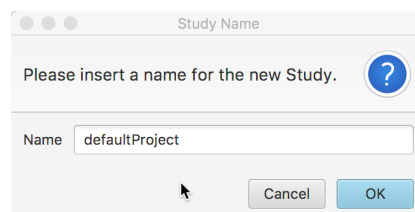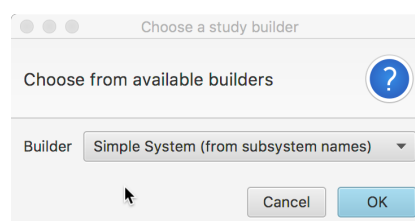


# Creating first study

Upon start the application asks whether to start with a new study or to load an existing one.
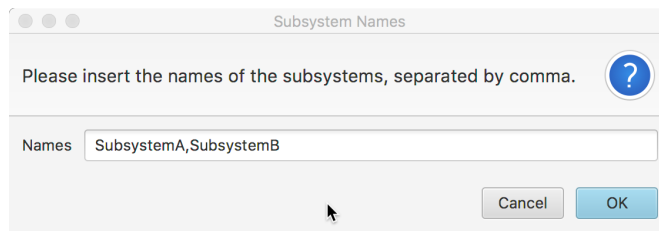


Creating a new one, please give it a name (at least 5 alphanumeric characters and dash).
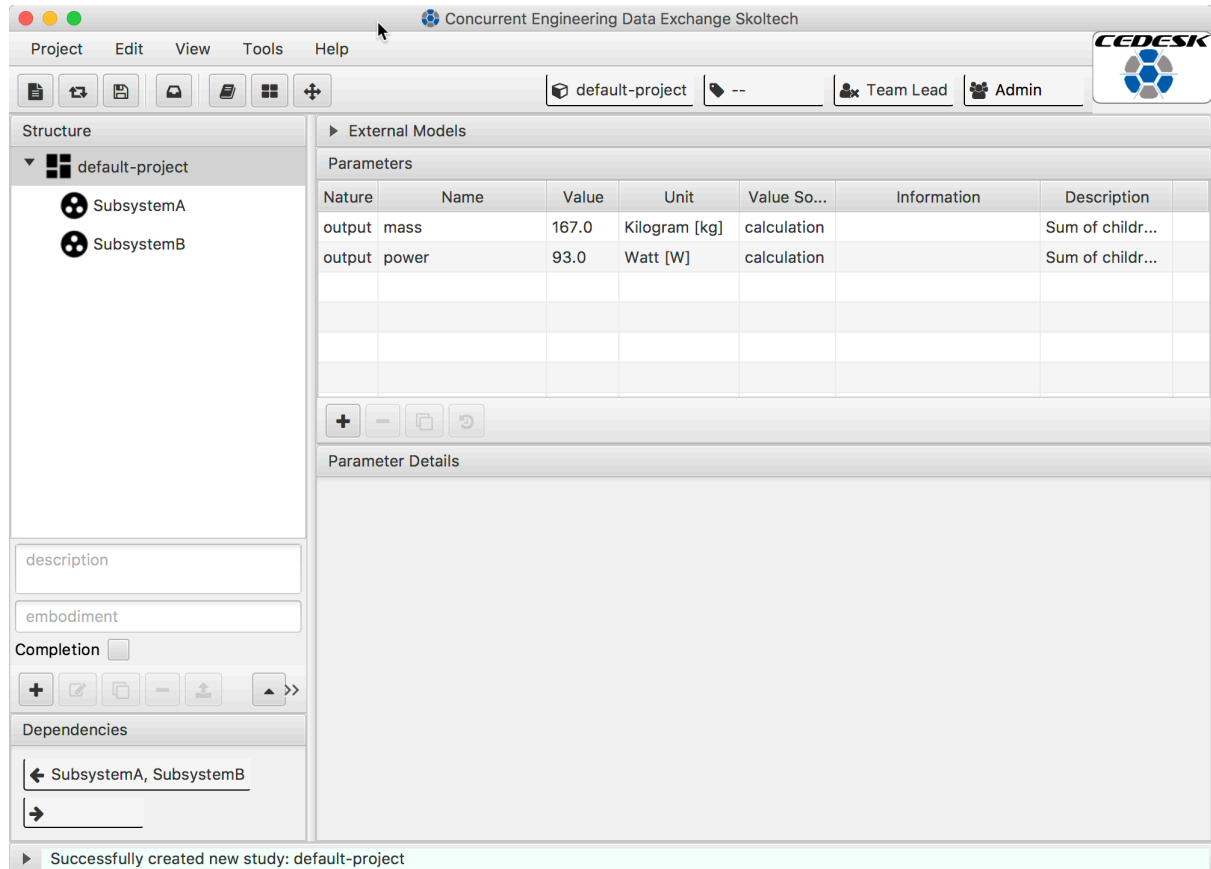


And press OK.



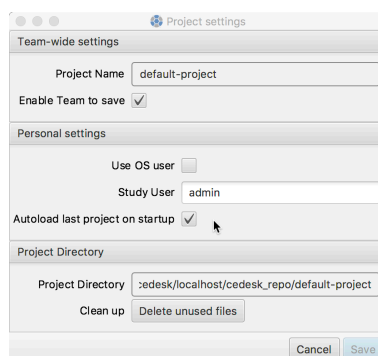Type the names of the subsystem you want to design and press OK.

And voila.



# Manage users

Only administrators are allowed to add and modify users.

## 1. Become administrator

To take the role of the administrator, got to the menu "Edit → Project Settings".

In the section Personal settings, make sure "use OS user" is not selected, and the Study User is set to "admin".

Close the dialog with save button.

NOTE: The CEDESK client by default take the username by which the user is logged in to the operating system.

## 1. Add Users

In a second step, go to the menu "Edit → Users"
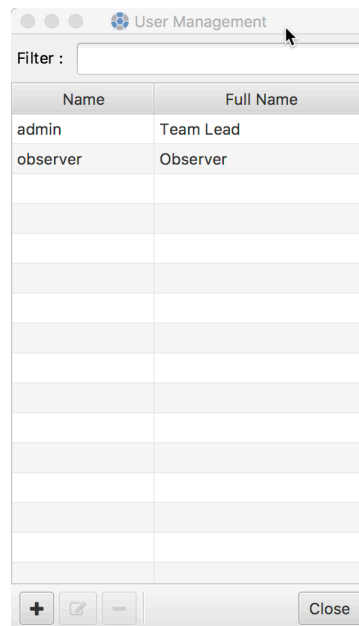


Press add (plus sign), insert the user name to be added and press OK.

Any changes to the users are saved right away.

NOTE: The CEDESK client by default take the username by which the user is logged in to the operating system. This simplifies the user management in organizations with centralized user directory. Future versions of CEDESK will support for authentication though LDAP.

# Manage user permissions

After the creation of users, go to the menu "Edit → User-Discipline Assignment".
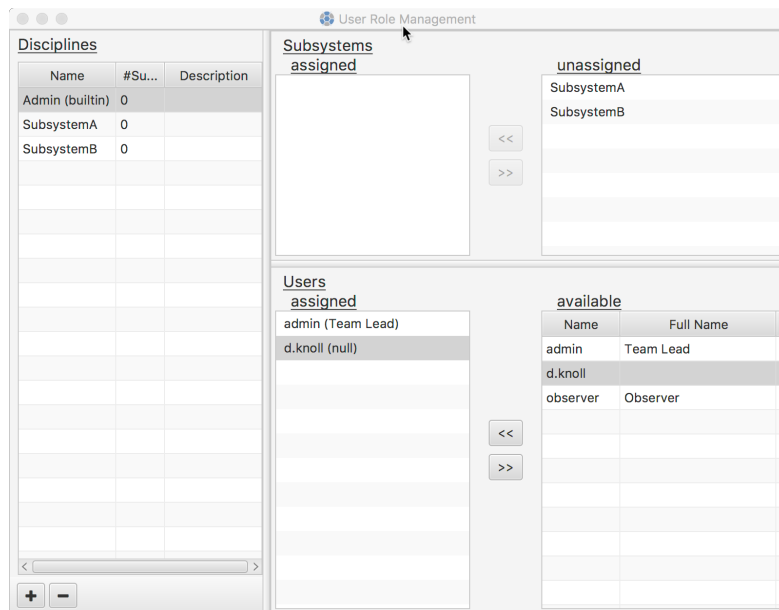
Select "Admin" discipline, and choose the user you just added from the available users list and press the button "<<". Then close that window.

Finally, press the Save button.

The status bar of the application should show "Successfully saved study".