

eLTER Science Conference - 2025 - Tampere,FI



Analyzing Remote Sensing Data with R

Getting Started

This [Github repository](#) lists the preparatory steps in advance of the workshop, and contains the practice exercises that will be covered.

Required Software

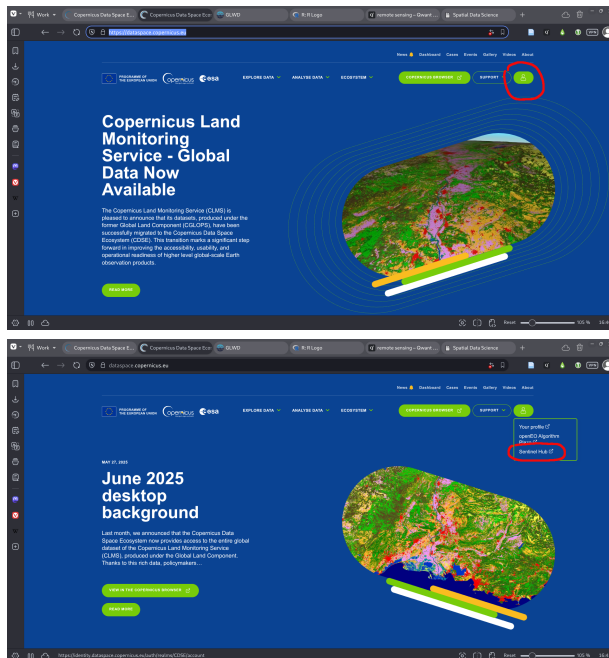
Each workshop participant should do the following on her laptop:

- Install a recent version of R, for your operating system from [CRAN](#)
- Windows users should add the Rtools toolchain from:
 - [RTools](#)
 - matching the version of R that was installed
- Install RStudio™ from [Posit](#)
- Once R is installed, the following packages should also be added:
 - `terra`, `sf`, `remotes`, `CDSE`, `rOPTRAM`
 - At the R command line, run:
 - `install.packages(c("terra", "sf", "remotes"), dependencies = TRUE)`
 - `remotes::install_github("zivankaraman/CDSE")`
 - `remotes::install_github("ropensci/rOPTRAM")`

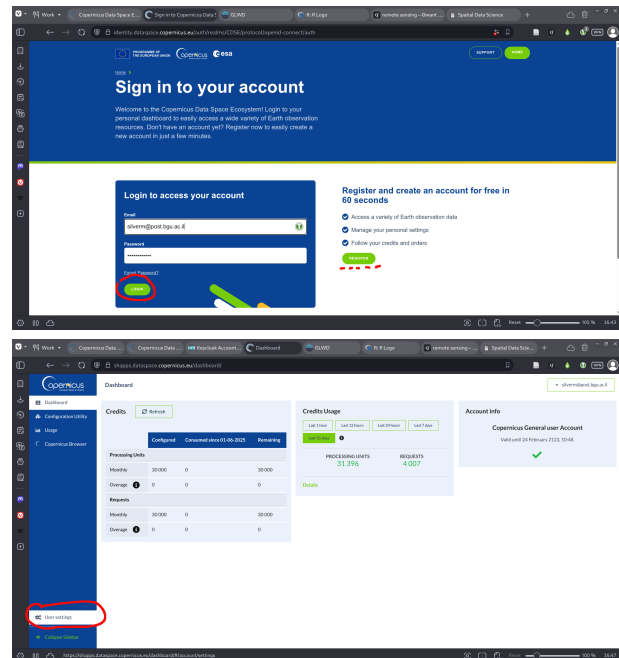
Authentication on Copernicus DataSpace (CDSE)

- Browse to CDSE [portal](#)
- Follow steps below to register on CDSE and prepare clientid and secret.
- Save both the clientid and secret to a `csv` text file.

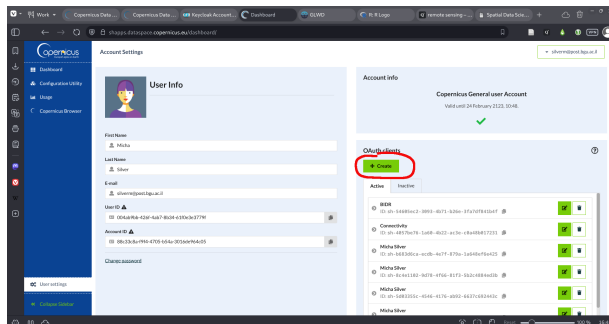
CDSE Authentication



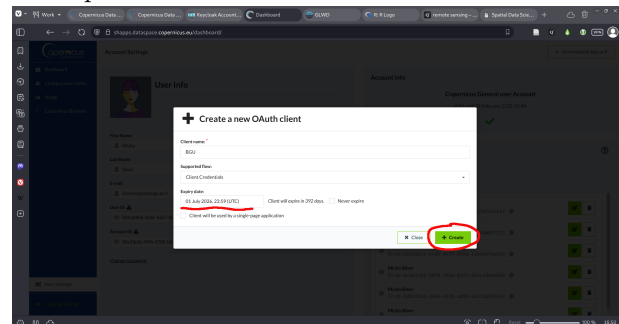
Steps



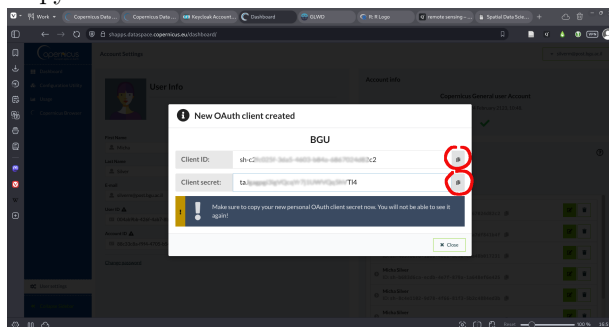
Create a new OAuth client



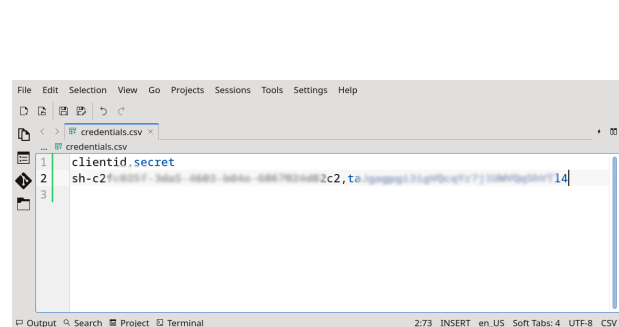
Set expiration date and click Create



Copy both the clientid and the secret...



... and save to csv file



Exercise data

Each participant can download the exercises and data in advance in one of three ways:

- Participants who are familiar with **git** can clone the repository:

```
git clone https://github.com/micha-silver/elter-2025-R-workshop.git
```

- The same result can be achieved within RStudio™ by starting a new **git** based project, pointing to the

same repository;

- Otherwise, the workshop material can be downloaded as a zip archive from [here](#)

License

eLTER Workshop-Analyzing Remote Sensing Data in R

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