

# User scripts

All Code\_Saturne commands are available under a single script: code\_saturne. Here below are the most useful commands for a Code\_Saturne user from the study creation to the post-processing. Complete information for each command can be obtained by typing: code\_saturne <command> --help.

#### info

Get information on  $Code\_Saturne$ . Open the documentation (user, theory).

e.g. code\_saturne info --guide user

### • config

Get information on the configuration and installation of  $Code\_Saturne$ .

 $e.g.\ {\tt code\_saturne}\ {\tt config}$ 

#### • create

Create a *Code\_Saturne* template study or case. e.g. code\_saturne create --study study1

#### • gui

Launch Code\_Saturne graphical user interface. e.g. code\_saturne gui --file xmlfile

### trackcvg

Launch *Code\_Saturne* track convergence tool. e.g. code\_saturne trackcvg RESU/run\_name

### • compile

Create a specific solver executable when some user subroutines are present.

e.g. code\_saturne compile --test

### • studymanager

Launch studymanager.

 $e.g. \hspace{0.5cm} {\tt code\_saturne \ studymanager \ --file} \\ \textit{xmlfile \ --run}$ 

# Main user subroutines

Here below are the most useful user subroutines to run a standard simulation. Some of them are useless if the graphical user interface is used.

# • cs\_user\_parameters.c

Initialization of the main keywords.

• cs\_user\_boundary\_conditions.f90 Management of the boundary conditions.

## • cs\_user\_physical\_properties.c

Management of the variable physical properties.

#### • cs user initialization.c

Non-standard initialization of the variables.

- cs\_user\_extra\_operations.c User project files.
- $\bullet$  cs\_user\_head\_losses.c

Management of the head loss.

• cs\_user\_source\_terms.c

User source terms related subroutines.

• cs\_user\_postprocess.c

Post-processing related subroutines.

# Practical information

https://www.code-saturne.org

Related software:

https://www.salome-platform.org

