

code_saturne 9.0 Quick reference card

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.q. 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.c 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.
 - 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

