



## Code\_Saturne 4.2.0 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, tutorial).  
*e.g.* `code_saturne info --guide user`

- **config**

Get information on the configuration and installation of *Code\_Saturne*.  
*e.g.* `code_saturne 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`

- **compile**

Create a specific solver executable when some user subroutines are present.  
*e.g.* `code_saturne compile --test`

- **autovnv**

Launch the auto-Validation tool.  
*e.g.* `code_saturne autovnv --file 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.f90**

Initialization of the main keywords.

- **cs\_user\_boundary\_conditions.f90**

Management of the boundary conditions.

- **cs\_user\_physical\_properties.f90**

Management of the variable physical properties.

- **cs\_user\_initialization.f90**

Non-standard initialization of the variables.

- **cs\_user\_extra\_operations.f90**

User project files.

- **cs\_user\_head\_losses.f90**

Management of the head loss.

- **cs\_user\_source\_terms.f90**

User source terms related subroutines.

- **cs\_user\_postprocess\_var.f90**

Post-processing related subroutines.

### Practical information

<http://www.code-saturne.org>

Related software:

<http://www.syrthes.org>

<http://www.code-aster.org>

<http://www.salome-platform.org>

