

STAR-CCM+

Purpose: Fluid Dynamics
& Engineering

Latest version: 12.06.011

License: ⚠️ Must be
provided by the user

Proprietary License _e

xt-link

Website: [https://www.plm.
automation.siemens.com/ ext-link](https://www.plm.automation.siemens.com/ext-link)

STAR-CCM+ is a multi-physics simulation package.

Built around a core for simultaneous resolution of computational fluid dynamics and heat transfer, STAR-CCM+ includes multiphase simulation, polyhedral meshing of solids and fluids, a fuel cells package, phase changes, chemical reactions, electromagnetic, etc.

SLURM Submit script example

For more information use the *Job Script Generator*.

Sbatch options:

The options shown in the example are detailed below. For more information and a more comprehensive list of available options, see the *sbatch command page*.

- **-J:** Name for the job's allocation.
- **-e:** Name of the stderr redirection filename.
- **-o:** Name of the stdout redirection filename.
- **-p:** Name of the partition (queue) where the job will be submitted.
- **-n:** Number of tasks.

starccm_example.slm

```
#!/bin/bash
#SBATCH -J starccm_example
#SBATCH -e starccm_example.%j.err
#SBATCH -o starccm_example.%j.out
#SBATCH -p std
#SBATCH -n 1
#SBATCH -t 0-02:00

module load apps/starccm/12.06.011

##
# Modify the input and output files!
INPUT_FILE=starccm_example.inp
OUTPUT_FILE=starccm_example.out

##
# You don't need to modify nothing more
cp -r ${SLURM_SUBMIT_DIR}/${INPUT_FILE}
${SCRATCH}
cd ${SCRATCH}

srun starccm ${INPUT_FILE} ${OUTPUT_FILE}

cp ./${OUTPUT_FILE} ${SLURM_SUBMIT_DIR}
```

- **-c:** Number of cores per task.
- **-t:** Set the job's time limit. If the job don't finish before the time runs out, it will be killed.