RESEARCH THESIS

CFD Workflow

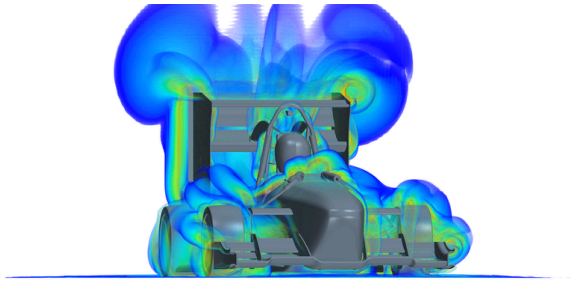
We use CFD-Simulations to develop our Aero-Package. The objective is to improve the workflow and add new features for accelerated development and results closer to the true on track performance.

The CFD Software is Star-ccm+ by Siemens. A workflow already exists and is already advanced, but shall be enhanced further. Some time to understand the current state is necessary.

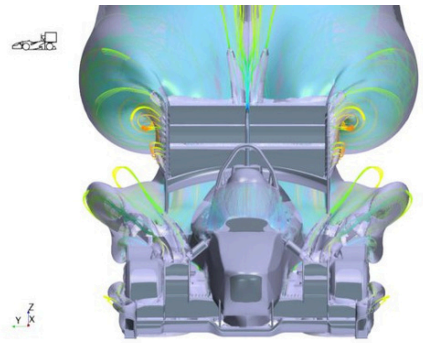
The workflow is to be further integrated in our CAD Software NX to accelerate the iteration process when developing. At the same time the preparations in the CAD to guide the automated simulation process later are to be extended in a standardized manner.

Furthermore the CFD shall be improved in these domains: Accuracy, Cell Count and variability. Also implement new analysis tools, many inspired by F1 methodology.

Any in detail Information is given in person, to limit leaking sensitive informations.



https://racetech-racingteam.de/wp-content/uploads/2020/05/Ractech_Megware_Artikel_TN.png



https://www.racecar-engineering.com/wp-content/uploads/2018/10/RSZ_Munich_CFD-696x446.jpg

Tasks:

- Improve Mesh (cell count)
- enhance connection to cad
- develop new analisys tools

Requirements:

- Basic Programming skills
- CFD experience
- knowledge about fluid mechanics
- optionally: CAD Skills
- Become team member