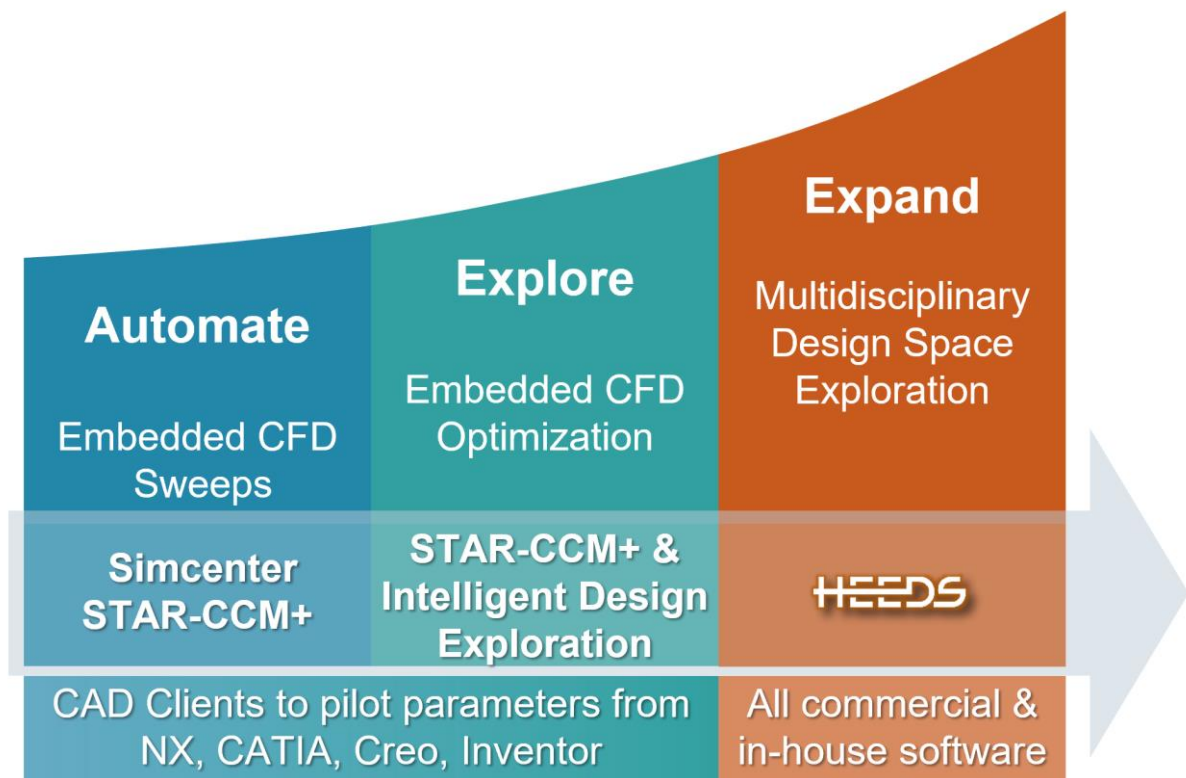


Webinar: Design Space Exploration with Simcenter STAR-CCM+

Q&A

Q1 Which of these features require extra licenses on top of the standard Star license?

To perform automatic optimization studies using the Sherpa optimization algorithm from HEEDS you will need an additional license. Design sweeps on parametrized models like the one that was shown on the car recently do not require an additional license and can be done with the design manager that is included in Simcenter STAR-CCM+.



Q2 When replacing parts in a design study how can you guarantee that the meshing results in a quality mesh and does not cause poor quality cells (eg. high skewness, undesirable y+ values etc).

It depends on how much the replaced part differs from the original part and how robust the corresponding operations mesh operations and mesh controls are. You can even

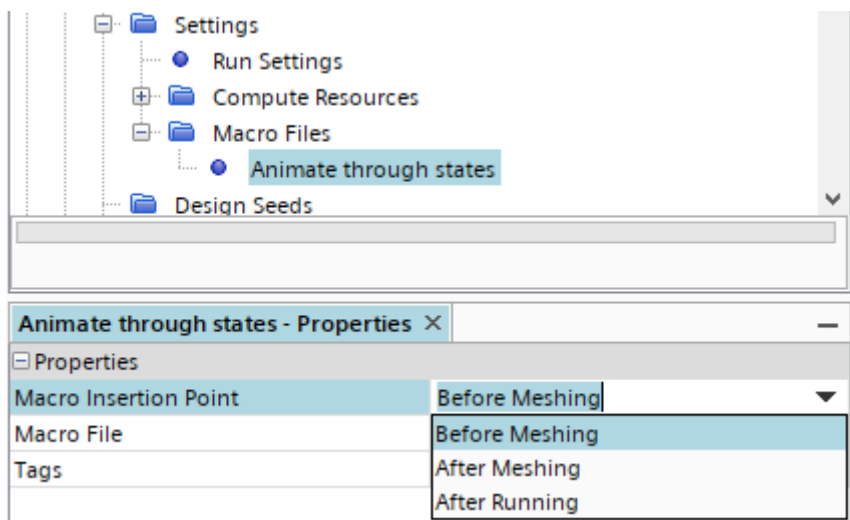
parametrize the meshing operation such that the refinements and prism layer definitions depends on the geometry characteristics, i.e. over all size.

Q3 For the roof box, how many errors & minutes took time, and how many cores engaged to solve?

The actual optimization was run on 20 cores with two simultaneous simulations over the weekend ;). I got about 20% error due to wide parameter ranges that resulted in problems to generate the CAD model. I actually know that from the CAD robustness study at the beginning.

Q4 Can you use macros in the Design Manager as you can in “normal” simulation environment?

Yes, under Settings of you Study you can add macros files. You can also tell the Design Manager when to insert the macro, e.g. after Meshing or after Running.



Tip: On the topic of macros. Please check “[How can I animate a Snapshot of Design Manager looping through all the states?](#)” knowledge base article at Siemens Support Center for a very helpful post processing macro. The macro provided here will loop through all the designs of the Design Set of a selected Snapshot, saving all the pictures in a folder in the same location of the java macro.