Apollo

User specification

**confidential**

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# Goal

The goal of Apollo is to provide engineers / designers with a tool that allows them to evaluate, optimize and change new and existing designs to deliver better performance.

# Use cases

Define the different use cases.

Robust design

* Design with tolerances (optimal solution with tolerance to change). User is effectively only interested in the final result, however there could be some interest in learning why this solution is the best.
* How to approach? Which actions will the user take to start a robust design?
* Iterations in design changes (or is that what-if, regardless we should support this)
* How to specify the tolerances and how to review the results?
* Should be useable with all different physics models / solvers

What-if research

* Put a design through different parameter studies to see what the differences are. User is normally only interested in the result, i.e. the influences of the different parameters. Possibly this could lead to an optimisation calculation (leaving out the unimportant parameters)
* How is this approached? What actions will be taken, what data is expected and should this data be stored?
* How will the parameters be specified? How will the parameter range be specified?
* Do users want to compare their results with others? Experiments, simulations?

Optimization

Research

Cool stuff?

* Comparison of different simulations or simulations & experiments