Innovative designs need new thought processes. A better understanding of the design is obtained by bringing together all the disciplines involved in the design as one entity. To reduce the design time, Knowledge-Based Engineering techniques are enabled for design automation of repetitive and tedious tasks. The obtained geometry is saved in a centralized XML database and automated for further analysis. The multi-disciplinary multi-fidelity approach enables a faster simulation and analysis by combining several disciplines and various fidelity models for systems simulation, Computational Fluid Dynamics, Finite Element Analysis and Multidisciplinary Design Optimization.
Knowledge-Based Integrated Aircraft Design
An Applied Approach from Design to Concept Demonstration

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