Aerodynamics

In the Aerofly FS 2 Flight Simulator engine the behavior of an aircraft during flight is influenced by two main components: the mass distribution, center of gravity and inertia (see main topic rigidbody system) as well as the aerodynamic geometry and parameters. In this topic the different aerodynamic object classes for an aircraft in the Aerofly FS 2 are introduced.

The geometry of the wings and their interaction are described in the aerowing class. Each aerowing will have two airfoils and can have a propeller wash additional air masses on it. The fuselage itself and any larger closed bodies like the engine cowlings of twin propeller aircraft (specifically NOT the nacelles of a turbofan, because they have a enormous hole in them) are modeled by aerofuselage objects with their own geometry and shape. For airbrakes the airbrake object can be used to model a changeable area in the incoming airflow. And last but not least, objects of the propeller class can be added to add a propulsion to the aircraft.

Common:

- aerowing
- airfoil
- aerofuselage
- airbrake
- propeller

Also implemented

- aerodrag
- bladeforce
- bodyaerodynamics