

Advanced Simulation Scope

Inside the CFdesign Advanced Module

Upfront CFD is all about using simulation to drive design decisions. The CFdesign Base Module contains an extensive collection of functionality, and is capable of solving a wide breadth of applications. Some situations, however, are a little more complex, and require physical models that are beyond the scope of the Base System. The best solution for these situations is the CFdesign Advanced Module.

License Requirements: The CFdesign Base System is a requisite for the Advanced Module.

Advanced Simulation Scope

The CFdesign Advanced Module provides additional flow and thermal simulation functionality to further expand the solution scope.

Advanced Fluid Flow

- Supersonic compressible
- Transient (time varying)
- Two-phase flows (humidity and steam mixtures)
- Height of fluid formulation
- Two-fluid scalar mixture model
- Compressible liquid (water hammer)
- Cavitation

Advanced Heat Transfer

- Internal radiation heat transfer
- Radiation through transparent media
- Solar Loading
- Temperature dependent emissivity
- Joule heating with temperature dependent resistivity

Advanced Conditions

- Relative humidity
- Steam quality
- Fill level
- Time varying boundary conditions
- Current
- Voltage