

# Capability Fast, Batch Simulation

Enhanced Analysis and Solver Capability V7.7.2

## Features

- Run parametric studies
- Create output parameters
- Link to applications with COM automation
- Integration with existing third party optimisation tools through open API's
- Examine dependencies in 2D or 3D charts
- Data or calculation results can be plotted directly against simulation number

## Benefits

- Perform a greater number of 'what if' comparisons at the concept stage
- Find out how sensitive a system is to design or operating condition changes
- Flexibility to select the best optimisation approach: parametric studies, bespoke or third party optimisation tools

## Overview

Flowmaster V7 enables users to model complete systems from the concept stage, through to system maintenance for increasing useable lifetime. The ability to perform parametric studies means you can rapidly evaluate system interactions and component influences from the digital prototype and optimise appropriately. Co-simulation with 3D CFD simulation tools means that system optimisation can occur concurrently with bespoke component design.

Flowmaster V7 provides users the flexibility to select the approach that best suits their needs. Users can:

- **Run parametric studies in batches from within Flowmaster V7**
- **Run parametric studies via bespoke applications using COM automation**
- **Link Flowmaster V7 to third party optimisation software tools**
- **Compare parametric studies with Flowmaster V7 post processing tools**

## Run Parametric Studies within Flowmaster

Using the Variable Parameters functionality in Flowmaster V7, users can update the data values for multiple components with a single input change. When simulations are run in batches, to form parametric studies, users can investigate the system sensitivity to parameters such as pipe diameter or valve position. These studies can be completed from within Flowmaster V7 and exported directly to Microsoft® Excel. The SQL integration ensures that these studies are traceable and users can roll back to find the relevant result.



