

Capability

Secure, Traceable Data

Securely Storing & Sharing Simulation Data

MECHANICAL ANALYSIS
Flowmaster V7

D A T A S H E E T

Overview

For all organisations, the management of intellectual property is important for effective product development and to maintain competitive advantage. The challenge is to manage design and simulation data in a way that upholds Quality Assurance processes without restricting the flow of information through the development process. This becomes harder for organisations that work on multiple projects with suppliers, generating large quantities of engineering data and work across international borders.

Flowmaster V7 uses an industry standard relational database to store all model and simulation data. Users can work with a local database or logon to a centrally served database which allows multiple users to access the same source of data. Access to project data and functionality is defined on a user by user basis which means that team members can get immediate access to the data to perform the tasks required of them.

Secure traceable data

Flowmaster V7 provides the capability to ensure data is secure and traceable throughout the development process:

Live Project Data - Database search, user group management, audit trail, mass data update, flexible mobile working and data signoff.

Legacy Data - Instantly identify signed off systems to review design decisions, ensure clear traceability of past project data and safeguard expert knowledge by capturing procedures and methodologies.

Extending Data Use - Save sub-system templates, store additional component data such as mass and cost, use the open API's to link with other data sources including CAE tools, CAD and PLM.

Hybrid Database Scheme - The hybrid database scheme delivers potential performance and productivity improvements by providing a method by which users can temporarily save result sets locally in a flat binary file and later check-in all or selected results to the main relational database.

Live Project Data

Project Team Management - Flowmaster V7 includes a User Group Management tool which allows project leaders to manage user access on a group permission basis, assigning different roles with related data and task privileges. For example, senior engineers may create new Flowmaster components which are available for others to use but not edit. Similarly, facilities such as 'Simulation Sign-off', which locks an approved system design preventing further modification, can be reserved for Project Managers. With V7.9, the addition of Microsoft Active Directory support provides the ability to assign Flowmaster roles and permissions using Microsoft Active Directory entries and Active Directory Global Groups. This reduces the administrative overhead of adding individual user permissions by aligning them with existing user groups.

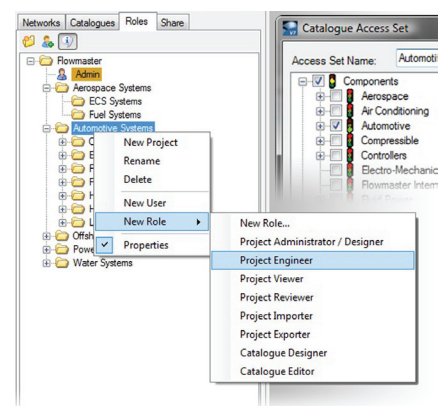
Design Change Audit Trail - Tracking design changes throughout the development life-cycle is achieved using the Flowmaster V7 Audit Trail capability. Every time the data changes for a simulation, Flowmaster V7 keeps a record of the input and simulation data, enabling engineers to quickly 'step back' to previous versions. The relational database also means you can easily search for components, performance and material data and make mass data updates.

Features

- Secure and robust industry standard central relational database
- User administration tool for project managers to manage data access
- Audit trail of simulation model changes
- Database synchronisation for those working offline from the central database

Benefits

- Traceability of design changes throughout the entire development life-cycle with audit trail functionality
- Enhanced collaboration levels within project teams whilst remaining in complete control of data security
- Safeguarding against personnel changes by capturing past methodologies



Mobile Working – Flowmaster V7 Database Synchronisation capability allows engineers to work offline from the main Flowmaster V7 database. Networks can be checked-out, modified and synchronised at reconnection knowing that parallel changes have been prevented. This gives users the flexibility to work at client or test sites whilst still maintaining the integrity of Flowmaster V7 data.

Legacy Data

Consistent Data – With all simulation data consistently stored in a central location, finding previous projects is not dependant on the working practises of individual team members. Knowledge is not lost as team members move on to different projects. When additional work is required on an in-service project, downtime is minimised as design data is instantly available.

Traceable Design Decisions – Flowmaster V7 enables design changes to be reviewed by creating a list of the data input changes that occurred between each simulation to quickly understand how the design evolved. Users can review the notes entered by the project team in the custom help and simulation descriptions to understand the approach taken. Final system designs can be found easily as it will be locked by the 'Simulation Sign-off' capability.

Extending Data Use

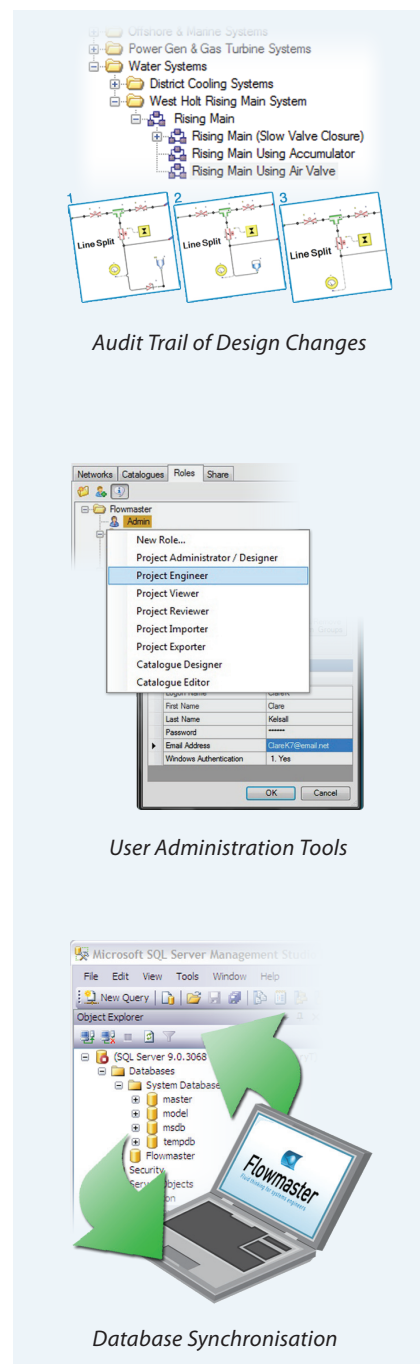
Develop System Templates – The Flowmaster V7 Sub-System functionality allows users to save commonly used system configurations in the database for reuse in future projects. Along with the ability to create custom components and save performance data for component suppliers, users can develop a bespoke fluid performance database.

Extend Component Data – Store additional data related to each component in the database such as mass and cost. Through bespoke scripting additional information is used in the analysis to provide augmented results unique to processes.

Link Data Management Systems - The Flowmaster V7 commercial relational database can be accessed through the open API's (Application Programming Interface) allowing the exchange of fluid system, geometric, connectivity and general product data throughout the product development life-cycle. This allows Flowmaster V7 to be integrated into the development cycle with data management tools including PLM.



Some of the many CAE tools you can integrate with Flowmaster.



Audit Trail of Design Changes

User Administration Tools

Database Synchronisation

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