AFT Impulse™ 7 New Features

Applied Flow Technology

General Interface

- Set defaults for your general unit system, language, pipe material and other preferences in the Startup Control window
- Import data from Excel using keywords
- Use Excel to make changes to multiple scenarios at once
- Load large models faster than before
- Easily add additional rows to the data tables (like Cv vs. Open Percent, etc.)

Model Import

- Import from a CAESAR II neutral file
- Import from a Piping Component File (.pcf)
- Import or export a EPANET file

Excel Export

- Export output using the new Excel Export Manager
- Export single values, columns, rows or entire output tables
- Export data from a graph
- Define specific starting cells and target worksheets
- Ability to include headers and units
- Automatically export data after the model is run or during a batch run of scenarios
- Complete your exports while running batch scenarios

Standards and Codes

- View a summary of the Codes & Standards used within the models
- Standard references are updated to current versions where applicable

Workspace

- Draw using an isometric grid
- Alter background opacity levels to make annotations stand out
- Zoom and pan with new keyboard shortcuts
- Draw attention to pipes with fittings & losses through symbols

Pipes

- Calculate buried pipe wave speed
- Enter intermediate pipe elevations as length from the pipe beginning
- Added many EN and DIN pipe standards to the available pipe materials
- Increased ability to select pipe materials in the Database Manager

Forces

- Improved method of saving imbalanced force calculations during a run to improve output display and graphing flexibility
- Exit differential forces

Junctions

- Improved user interface for defining rotodynamic (centrifugal) and positive displacement pump data in the Pump Property window using automatic periodic PD pump flow calculation
- Improved user interface for four quadrant modeling for pumps
  - Specify trip and startup cases

junctions are continued on page 2 ...

ADD-ON MODULES

PFA

Pulsation Frequency Analysis

Helps identify and avoid resonant frequencies in systems, especially in those caused by positive displacement pumps.

SSL

Settling Slurries

The only commercial software solution that can model both non-settling and settling slurry waterhammer effects.

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... junctions continued from page 1

- Enhanced pump inertia estimation and specific speed selection
- Variable speed and controlled pumps can trip during a transient
- Ability to model Pumps as Turbines (PAT)
- Enhanced Check Valve Property window
  - Added dimensional and more non-dimensional closing velocity estimation profiles
  - Added translating nozzle/plug force balance type
- Pre-defined Cv vs. Open Percentage profiles for valves
- Use a finite tank option for Reservoir junctions
- Use a time delay for Vacuum Breaker Valves
- Ability to define a relief valve effective orifice based on API 526
- Can now set Control Valves default for Always Control Never Fail

Output

- Create Design Alerts by simply right-clicking on cell or column header to create a Design Alert, add to the Excel Export Manager, copy data, find on the Workspace, sort and change units
- Display reports in Portuguese

Model Data

- Right-click a pipe or junction table row to quickly find the object on the Workspace

Graphs

- Includes new junction parameters (e.g. pressure drop)

Visual Report

- Toggle between image and data options in a user-friendly interface
- Utilize color animation to visualize parameter changes over time

Fluids

- Includes a new extensive fluid database NIST REFPROP which supports pure fluids and mixtures

DID YOU KNOW?

Most AFT software model files are interchangeable, meaning any AFT model can be imported and exported between any AFT product.

For example: AFT Fathom models can be imported into AFT Impulse to analyze surge and water hammer.

Contact info@aft.com or call 719.686.1000 for more information or to schedule a personal demonstration.

Something For Everyone

Hands-on Seminars
This classroom style setting accelerates your skills and teaches you how to be an expert (check the website for dates and locations).

Custom Training
AFT can bring our training to your location! You can also utilize our Flow Expert Package to customize training or model solutions for your projects.

Free Webinars
Hosted twice a month, webinars introduce our products and talk about solutions-based uses. Recorded webinars are located on our website.

Contract Consulting
Have more projects than you can handle, or maybe you just need some expert analysis? Extend your team with an experienced fluid systems engineer.

Tips & Tricks
Do you read the AFT newsletter? Each month, AFT engineers give readers a new tip and trick to keep you up to date.