**New Features in AFT Fathom 8**

- General interface
    - Updated interface and icons
    - Robust support for dual monitors
    - Native support for both 32-bit and 64-bit operating systems
    - Tabbed Primary window navigation with individual window pullout feature
    - New Startup panel allows user to choose engineering unit system (U.S./metric) and specify default fluid
    - Improvement of main menu navigation including redesign of the Checklist
    - Primary window toolbars now integrated into each Primary window
    - Non-settling slurry features accepts raw rheological data and generation of non-Newtonian constants as well as new raw data Scale-up model
    - Capital and recurring cost data allows cost estimation for piping systems
    - New User Options window collects many of the previous user customization windows into one place – including Parameter and Unit Preferences, General Preferences and Workspace Preferences
    - Improved printing features includes use of company logo, user comments and titles, as well as graphical borders on all printouts
    - Help menu links to video tutorials on our website
    - When merging models users can automatically create a group of merged pipes and junctions
    - User customizable themes
    - Output reports available in Spanish language (coming soon)
- New Quick Access Panel
    - Access to Scenario Manager directly in interface
    - Access to Graph Sets directly in interface
    - Access to Workspace model overview map
    - Alternate display of Input and Output data for pipes and junctions
    - Users can pin the Panel or use it in flyout mode

- Scenario Manager
    - Access through Quick Access Panel from any Primary Window tab
    - Insert Scenario feature allows new scenarios to be inserted above any scenario including the Base Scenario thus creating a new Base
    - Delete All Children feature means children do not need to be deleted one at a time
- Workspace
    - Transparent icons gives more modern look to model
    - Mapping feature flyout allows birds-eye view of model and navigation
    - Dockable and movable Toolbox
    - Toolbox icon changes can be made using a right mouse click on the Toolbox
    - Select cursor or Pan cursor selectable on the Toolbar
    - Improved navigation speed for large models with thousands of pipes and junctions
    - Improved Inspection window more readable and has integrated Output data with Input
    - When trying to move locked pipes and junctions a lock symbol appears next to locked items that cannot be moved
    - Annotations capability great improved also allowing user's images to be inserted into the annotation
    - Improved pipe and junction graphical interference detection
- Model Data
    - General, Pipe and Junction data display sizes can be changed by user and more easily hidden
    - New zoom feature added
- Output
    - General, Pipe and Junction output report display sizes can be changed by user and more easily hidden
    - New zoom feature added
- Graph Results

    - Improved Graph Set creation and navigation integrated into Graph Results window Quick Access Panel

- Pipes
    - Fittings and losses can now have user “Favorites” which allows for much faster navigation to frequently used fittings
    - New heat transfer model allows convective heat transfer to be modeled simultaneously with a fixed heat flux
    - New Pipe Material Databases based directly on international pipe standards (databases coming soon)
- Junctions
    - Reliability factors for pumps estimates relative impact on pump reliability of pump speed, impeller size and off-BEP operation
    - Pump de-rating by user specified factors adds to previous calculated de-rating methods
    - Reference density for all pump head curves and junction resistance curves allows correction for pressure drop data, mass flow data and (for pumps) power data
    - New Kv loss model for valves
- Solver
    - Thermal sectioning for pipes and heat exchangers allows for more accurate temperature change calculations when temperature changes are large and specific heat is non-linear
    - Improved support of pressure drop in fittings by use of the Adjusted Turbulent K factor method
    - Handle varying ambient pressure with elevation
    - Improved convective heat transfer model for laminar flow
- Modules
    - GSC - Pipes now have GSC variables available such as roughness, design factor, insulation thickness, Reynolds number