

# New Features in AFT Arrow 5

- 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
  - 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
  - User customizable themes
  - Output reports available in Spanish language
  - Curve fit configuration window parameter and unit selection have been improved
  - Files are automatically locked when opened to prevent multiple users from accidentally opening the same file
- 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
  - Input and Output data displayed on flyout panel integrated into Workspace
  - 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
  - Last selection on the Workspace can be reselected using F12
  - When merging models users can automatically create a group of merged pipes and junctions
- Model Data
  - General, Pipe and Junction data display sizes can be changed by user and more easily hidden
  - New zoom feature added
  - Curve fit raw data is now an available display parameter for junctions
- Output
  - General, Pipe and Junction output report display sizes can be changed by user and more easily hidden
  - New zoom feature added
  - New parameters available
  - Display multiple instances of the same parameter with different units
  - Output Control parameter selection improved and made uniform
  - Parameter units are selected next to the parameter in the grid
- Graph Results
  - Improved Graph Set creation and navigation integrated into Graph Results Quick Access Panel
  - Annotations can be placed directly on graphs
- Pipes
  - Fittings and losses can now have user "Favorites" which allows for much faster navigation to frequently used fittings
  - New Pipe Material Databases based directly on international pipe standards (databases coming soon)
  - Added ability to select all items in a section in the Global Edit window
  - Improved pipe inspection window
  - New heat transfer model allows convective heat transfer to be modeled simultaneously with a fixed heat flux
- Junctions
  - New Kv loss model for valves

- Added ability to select all items in a section in the Global Edit window
  - Enhanced Relief Valve modeling
- 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 convective heat transfer model for laminar flow
  - Handle varying ambient pressure with elevation
- Modules
  - GSC
    - new parameters for goals, pipe friction parameters as variables
    - new variable linking options
    - GSC Manager goal and variable re-ordering
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