

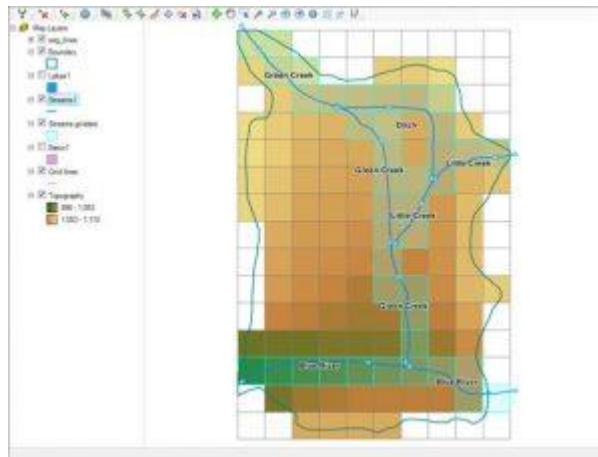
VISUAL MODFLOW FLEX / 7.0

Experience the new version release of **Visual MODFLOW Flex 7.0**.

Usability and Other Enhancements

- **Surface Water Modeling (SFR2)**

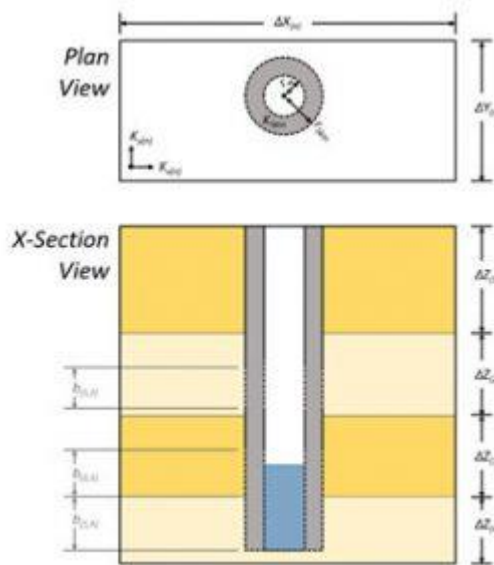
Support for the Surface Flow and Routing (SFR2) Package in Finite Difference models:



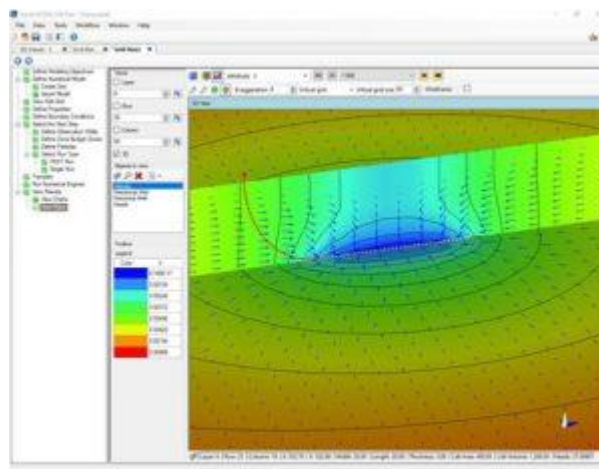
- New Surface Water workflow to develop and define connected networks of stream segments, diversions, and lakes
- GIS editing capabilities for digitizing the surface water network including add, remove, edit, delete, snap, split, flip
- Surface water network attribute editing dialog for streams and lakes
- Translated SFR2 package including lake connections and 1-D vertical unsaturated flow beneath perched streams.

- **Well and Multi-Node Well (MNW1/2)**

Support for multi-node well (MNW1/2/I) packages in Finite Difference Models:



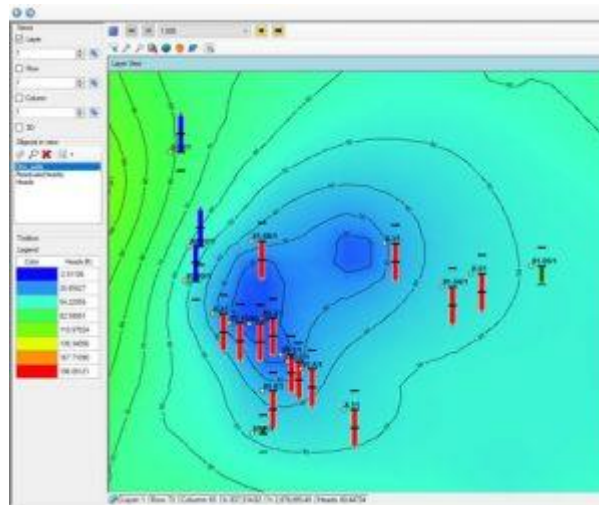
- Dynamically switch between supported well models (WEL/MWN1/MNW2)
- Import and edit well information including head loss, well skin, and pump constraint parameter supported in MNW1/2 packages
- Support for non-vertical wells (also known as deviated or horizontal) wells:



- Define conceptual Wells by drawing or by assigning wellhead points
- Multi-select editing of well parameters and schedules

- **Calibration**

- Import and/or set target residuals for Head/Concentration Observations
- Display spatial distribution of residuals relative to target residuals by layer or observation group at the View Maps workflow step



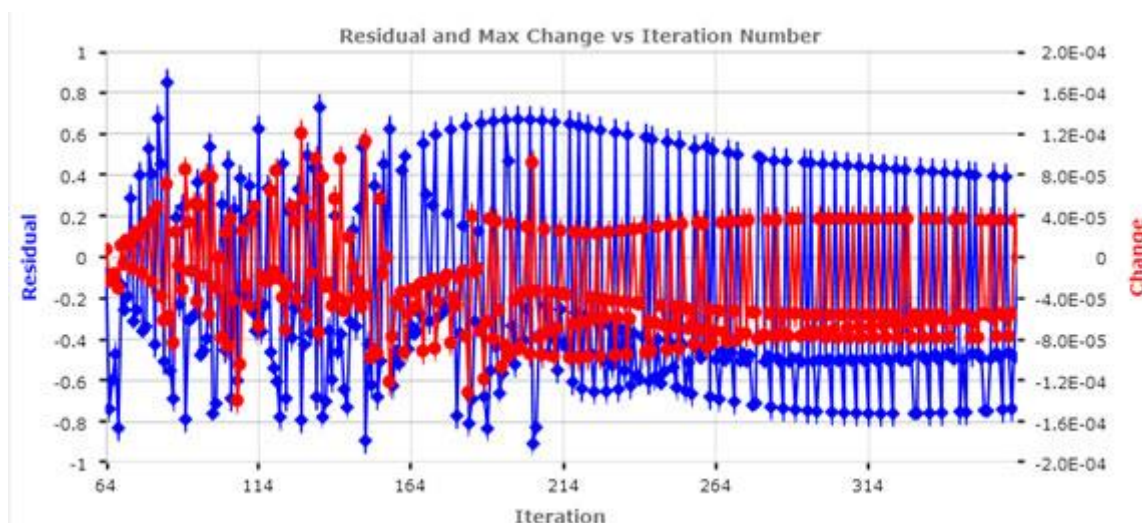
- The number of observations is included as a statistic below Calculated versus Observed calibration charts

Number of Data Points: 160
 Min.Residual: -0.00022 (m) at obore_4 Time=91.3
 Max.Residual: -0.23 (m) at obore_1 Time=7.738
 Residual Mean: -0.022 (m)
 Abs.Residual Mean: 0.064 (m)

Standard Error of the Estimate: 0.0063 (m)
 Root Mean Squared: 0.082 (m)
 Normalized RMS: 1.24 (%)
 Correlation Coefficient: 1

- **Model Runs**

- Flow and Transport model run results are graphically displayed in real time including the global residual error and the max head/concentration change, as supplied by the active solver package settings.



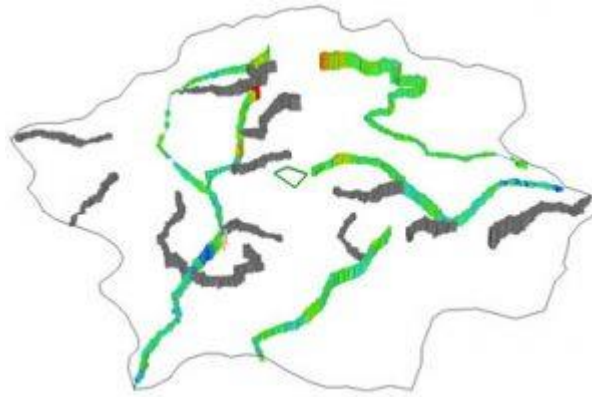
- Modified MODFLOW-USG to report solver progress in real time to the display console including global residual error.

- **Model Import**

- When importing a MODFLOW model, you can now define an offset and rotation angle for the grid to set the model in world coordinates.
- Import MODFLOW-NWT model and supported packages
- When importing files MODFLOW files, invalid values that will cause issues during a simulation (such as negative conductivities) are replaced with project default values.

- **Usability and Other Enhancements**

- Visualize Flow Budgets/Fluxes for MODFLOW-USG simulations



- When visualizing multi-attribute plugins (such as Flux, Velocity) to visualize you can select the active attribute to be shown in the view and in the status bar
- Edit individual top/bottom of individual cells via the mouse or via script when editing grid layers
- Graphically select refinement rows/columns using the mouse when editing the grid in plan view
- A link to the model files is available at the Parameter Estimation step in PEST workflow
- Translation log is copyable to the Windows Clipboard
- NWT translation settings include option for the IPHDRY setting