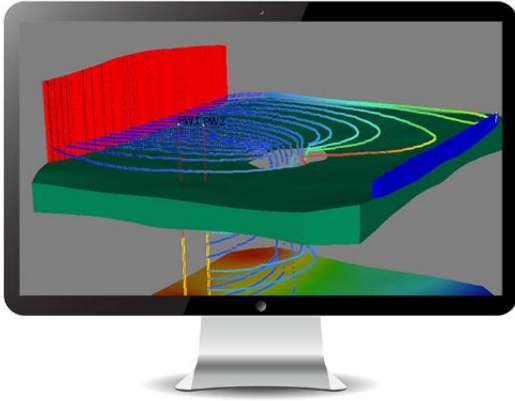


Visual MODFLOW Flex

Build models faster and more efficiently



- Model inputs and grid design can be updated at any point in the modeling process as modeling objectives change, more data are collected and a better understanding of the sub-surface is achieved.
- Modeling steps are conveniently presented in an intuitive, workflow-driven graphical user interface: see current and completed steps, and steps you need to finish.
- GIS-based 3D conceptual modeling and numerical modeling all within a single integrated software environment. This reduces costly 3rd party pre-processing tools, and eliminates transfer errors.

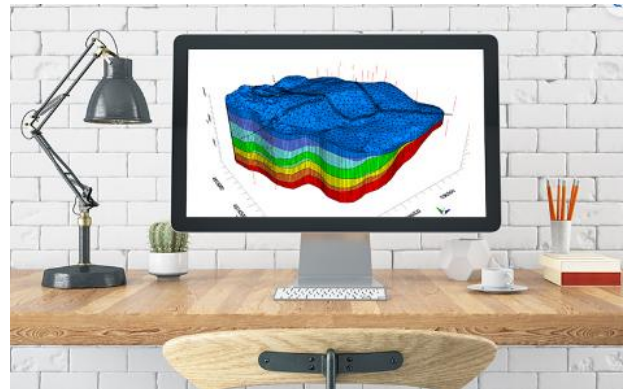
Build larger, more complex credible models

- Delineate well capture zones for domestic water supply development
- Design and optimize pumping well locations for mine dewatering projects
- Determine contaminant fate and exposure pathways for risk assessment
- Simulate surface water-groundwater interactions
- Watershed scale/regional groundwater modeling, and aquifer storage and recovery (ASR)
- Evaluate groundwater remediation systems (pump and treat, funnel and gate etc)
- Evaluate saltwater intrusion

Powerful Data Visualization

Built and designed on the latest in 3D visualization technology, Visual MODFLOW Flex allows you to effectively present and communicate your data to colleagues and stakeholders with impressive visual renderings of your hydrogeologic model.

- Visualize all data, including conceptual objects, numerical grids, input data (property zones, boundary condition cells) and output data (calculated heads, pathlines, water table) in state-of-the-art 2D, 3D and multi-view (FlexViewer) displays.
- Create cut-away and cross-sectional views that allow you to see inside your model.
- Generate 3D animations and movies for reports or the web, and optimized OpenGL graphics for enhanced hardware rendering.
- Add isolines, contours, pathlines and color shading to viewers.
- Drape raster images (site maps, satellite imagery) over 3D surfaces to show relief



Efficiently Manage Multiple Models

Most modeling projects involve several scenarios/versions, e.g., steady-state vs transient, different properties, inputs and grid types. Visual MODFLOW Flex allows you to assess uncertainty and improve model credibility through comparisons and analysis of multiple modeling scenarios – all within a single project.

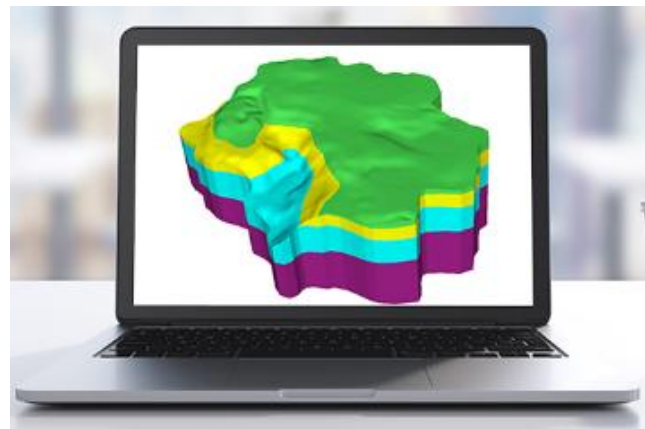


- Manage multiple model scenarios in a single project, and make direct visual and numerical comparisons between different modeling scenarios.
- Easily generate multiple models in parallel for evaluating alternative hydrogeologic interpretations and hypotheses.
- Calculate head differences between multiple model runs, with the same or different grid size.
- Compare and analyze multiple modeling scenarios for selecting the best, most realistic model.

Full GIS Integration

Easily construct your grid-independent hydrogeologic conceptual model in minutes using existing GIS data sets.

- Quick and easy data importing of all common file types and formats.
- Automatic coordinate system and units conversion on import, and automatic data validation and intelligent error checking on import.
- Define model boundaries, property zones, boundary conditions and attributes from imported GIS data.



Integrated 3D Conceptual and Numerical Groundwater Modeling

Visual MODFLOW Flex provides a seamless transition from raw data through conceptualization to the numerical model all within a single intuitive modeling environment.



- Define complex geology and model layers using borehole log data and cross-sections
- Interpret GIS data to define hydrogeologic properties and boundaries independent of the grid
- Run, analyze, and validate model results with raw data in 2D, 3D, and cross-section views
- Easily create multiple conceptualizations; generate numerous grids and model scenarios in parallel all in a single project

Visual Modflow Flex

- Assess uncertainty through comparing heads from multiple model runs in 2D, 3D or chart views

Flexible Grid Options

Visual MODFLOW Flex provides various grid types from which you can generate your numerical model. Easily experiment with different grid types and choose the one that gives you the best, most stable model.

- Choose from various structured and unstructured grid types to accommodate a wide range of applications and geologic conditions (e.g., pinch outs, discontinuities).
- Improve simulation accuracy, reduce runtimes and increase model stability with unstructured grid types (MODFLOW-USG)
- Easily generate multiple grids within the same project and compare side-by-side in 2D or 3D
- Perform grid refinement around areas of interest
- Create faster more stable models with nested child grids that contain local horizontal and vertical refinement (MODFLOW-LGR)
- [View all supported grid types](#)

