



Groundwater Modeling System

Version 7.0

What's New in GMS 7.0

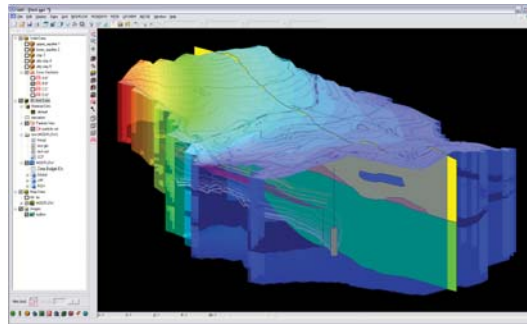
- Microsoft® Windows® Vista® support
- Export subsurface data to Arc Hydro Groundwater
- Enhanced MODFLOW interface
- Support for MODFLOW SFR2 & ETS1 packages (DRT1 & MNW coming soon)
- Updated graphics engines
- Many more!

Model Interfaces

- MODFLOW 2000
Steady state and transient analysis
- MODPATH
Particle tracking
- MT3DMS
Transport simulation
- RT3D
Reactive transport modeling
- SEAM3D
Reactive transport modeling
- MODAEM
Analytic element modeling
- UTEXAS
Slope stability analysis
- SEEP2D
Seepage analysis
- PEST
Automated parameter estimation
- FEMWATER
Sat/unsat and coupled density dependent flow and transport
- T-PROGS
Transition probability geostatistics on borehole data
- SAMG SOLVER
Efficient MODFLOW solver

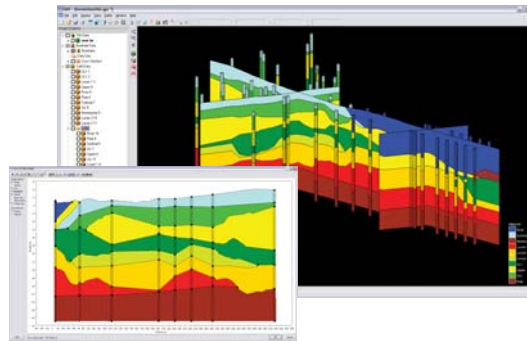
Groundwater Modeling Solutions

- Quickly & intuitively build advanced groundwater models
- Save time with conceptual, GIS-based approach
- Improve presentations with advanced graphics
- Have access to a broad range of models and capabilities
- Visualize stratigraphy & plume data



Finite Element Solutions

- Groundwater Flow & Transport with FEMWATER
 - Unsaturated zone modeling
 - Salinity intrusion
- 2D seepage analysis with SEEP2D
- Slope stability analysis with UTEXAS

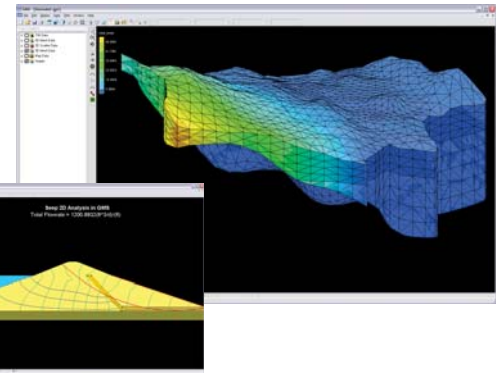


Groundwater Flow & Transport Modeling

- Import maps, elevations and GIS data
- Import borehole data and define stratigraphy
- Use conceptual model to automatically define model grid and map model parameters
- Run MODFLOW or other groundwater models
- Visualize model results or stratigraphy
- Use advanced tools for calibration

MODFLOW Solutions

- Groundwater flow with MODFLOW 2000
- Contaminant transport with MT3DMS
- Reactive transport with RT3D or SEAM3D
- Automated MODFLOW calibration with PEST
- Stochastic modeling



Subsurface Characterization

- Import & visualize borehole data
- Create & manage cross-sections & fence diagrams
- Create solids of layers and texture map image on surface
- Import & visualize plume data with iso-surfaces
- Use advanced geostatistics tools including kriging

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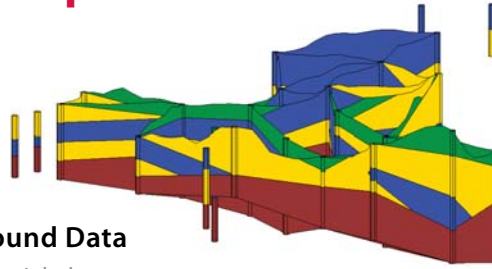


Conceptual Modeling for Groundwater Flow & Transport



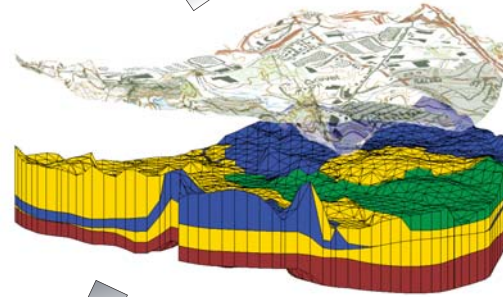
Import Background Data

- Topo maps and aerial photos
- AutoCAD and GIS data
- Surface elevations



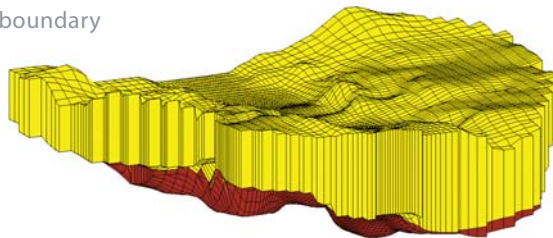
Define Stratigraphy

- Import borehole or scatter data
- Interpolate layer boundaries
- Define cross-sections
- Create solids



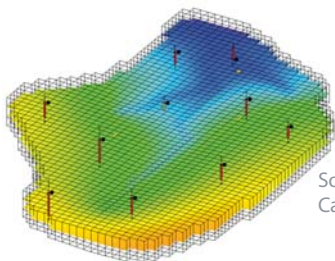
Generate & Run Numerical Model

- Automatically generate grid or mesh
- Map layer data and boundary conditions
- Run Model
- Visualize results
- Calibrate model



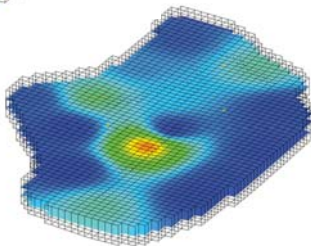
Create Conceptual Model

- Determine model domain
- Define hydraulic material zones and layers
- Define boundary conditions
- Enter source/sinks



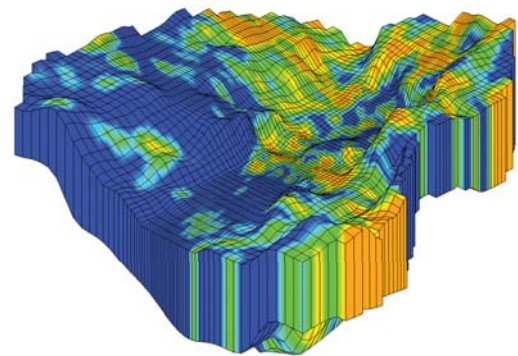
Solution with Calibration Targets

Conductivity Fields with Pilot Points



Stochastic (Monte Carlo) Modeling

- Indicator simulations with T-PROGS
- Parameter Zonation
 - Random sampling
 - Latin Hypercube
 - Gaussian Fields



Model Calibration

- Automated calibration with PEST
 - Pilot Points
 - Zonation
- Manual calibration tools
 - Calibration targets
 - Calibration plots