Groundwater Vistas Version 8

Licensing & Operating Systems

- Native 64-bit Version of Groundwater Vistas & all models
  - Available in Standard Mode now with size limitations (see next page)!
  - Standard Mode supports MODFLOW-USG in normal grids
- Supports 32-bit and 64-bit Versions of Windows 10
- HASP keys (dongles) allow us to provide upgrades via email (if you have version 6 or 7, you do not need a new dongle)

Model Versions

- MODFLOW2005 Version 1.12
- MODFLOW-NWT Version 1.2.0 (**New**)
- MODFLOW-USG Version 1.5 & Transport Version 1.5.0 (**New**)
- MODFLOW-USG Transport with PHREEQC (**New**)
- MODFLOW 6 Version 6.1.1 (**New**)
- MODFLOW 6 Transport (*when released*)
- MT3D-USGS Version 1.1.0 (**New**)
- PEST Version 17.05 with BEOPEST and PEST++ IES (**New**)
- PEST_HP included for highly parameterized inversions (**New**)
- AlgoMesh Version 2 provided in new Professional & Premium licenses and as an additional charge in upgrades from version 7 (**New**)

MT3D Packages & Options

- MT3D-USGS – new version from USGS
- Contaminant Treatment System (CTS) Package
- Streamflow Transport (SFT) Package
- Lake Transport (LKT) Package
- Unsaturated Zone Transport (UZT) Package
- Chain decay and EA/ED Reactions

MODFLOW Packages & Options

- MODFLOW-USG option to only use active cells for significant runtime reduction
- 3D Quadtree grids (Octree) in MODFLOW-USG & MODFLOW 6
- Triangular and Voronoi grids for MODFLOW-USG (Professional & Premium only) can have different grid layout in each layer

- MODFLOW-USG dual domain transport
- Updated SAMG Solver for MODFLOW-USG Transport and MODFLOW2005*
- Density-dependent flow/transport in MODFLOW-USG Transport
- Transport in CLN Domain with concentration display
- PHREEQC in MODFLOW-USG for geochemical transport (PHT-USG)
- MODFLOW 6 UZF Package
- MODFLOW 6 Water Mover Package
- MODFLOW 6 Transport (when released by USGS)

Groundwater Vistas Interface

- Display CLN Polylines in Section View
- Zoom to well or target
- Color flood of solver error (PCG2, NWT, SMS, IMS)
- Batch Utility for Multiple Simulations, Utility programs, and DOS commands
- Color flood of CLN polylines
- Multi-threading of Model Runs
- Option to Only Update Solver Files (useful when experimenting with solver settings)
- Autosensitivity for MODFLOW-USG and MODFLOW 6
- HSU zones added to Nests
- Find Isolated Nodes in Unstructured Grids
- CLN Polyline reach numbers
- CLN Polyline boundary condition reach numbers
- Many new tutorials including SEAWAT, Heat Transport, and use of Beopest/Pest_HP

Pest and Calibration

- CLN Targets (Head, Concentration, CLN Flux, Groundwater Flux)
- HSU Flux Targets (flux between adjacent HSU zones)
- Calibration Targets for Contaminant Plume Statistics and Mass
- Extraction System Mass Targets
- Support for Pest++ IES (Iterative Ensemble Smoothing)
- SUB Package Parameters
- CLN Package Parameters (fskin and CONDUITK)
- Pest_HP included
- Launch Beopest, Pest_HP, and Pest++-IES distributed runs from GV8

* Requires additional purchase

Version 8 Costs

Standard Upgrade from v6 Standard:	$1,400
Advanced Upgrade from v6 Advanced:	$1,850
Pro Upgrade from v6 Professional	$2,400
Premium Upgrade from v6 Premium	$3,900
Standard Upgrade from v7 Standard:	$ 550
Advanced Upgrade from v7 Advanced:	$ 750
Pro Upgrade from v7 Professional**	$ 950
Premium Upgrade from v7 Premium**	$1,600
Algomesh Version 2 Upgrade	$ 600
New Standard License	$1,750
New Advanced License	$2,350
New Professional License	$3,650
New Premium License	$4,900
Add Remote Desktop to Adv, Pro, Premium	$1,250
Upgrade from V8 Standard to Advanced	$ 600
Upgrade from V8 Advanced to Professional	$1,300
Upgrade from V8 Professional to Premium	$1,250

Notes:

- Version 6 licenses must be upgraded by February 28, 2021. After that date, new licenses must be purchased.

- Upgrades from version 7 prior to January 1, 2021 will maintain a version 7 and version 8 license on the same hasp key (dongle). After January 1, 2021, licenses on the hasp keys will be replaced with version 8 only.

- New Version 7 licenses purchased after February 29, 2020 will receive a free upgrade to version 8. (Note this does not include version 7 upgrades, only new licenses).

** Algomesh Upgrade to version 2 is a separate cost. You may still use the AlgoMesh license from version 1 with Groundwater Vistas version 8.

Differences Between Levels

The Standard version:

- Limited to 1,000,000 nodes
- Limited to 250 stress periods
- Can use MODFLOW-USG, but only for rectangular grids

The Advanced version adds the following over standard:

- Pest SVD-Assist and Null Space Monte Carlo
- Pest++-IES (Integrated Ensemble Smoothing)
- Pest Linear Uncertainty Analysis
- BEOPEST/PEST_HP support
- HUF Package support
- Conduit Flow Process support
- Monte carlo simulation
- MODFLOW-Surface transient material properties (TMP1) Package (note you need to have a valid surface license)
- MODFLOW-USG for unstructured grids (normal, nested, and quadtree grids)
- MODFLOW 6 for unstructured grids (normal, nested, and quadtree grids)
- Sea Water Interface (SWI) Package

The Professional version has everything from the Advanced level plus:

- Includes AlgoMesh license for designing voronoi and triangular grids
- Import of MODFLOW-USG models
- PHREEQC version of MODFLOW-USG for reactive transport modeling
- AquiferWin32 license (includes Winflow/Wintran) for aquifer test analysis
- GW3D viewer
- Support for MODHMS (integrated surface water/groundwater model - MODHMS is a separate license)

The Premium version has all of the above plus the SAMG Solver (MODFLOW-2005 & MODFLOW-USG).

Technical Support Policy

Technical support is free for versions 7 and 8. Technical support for version 6 ends with the release of version 8. We will continue to answer questions on version 6. However, those responses will be delayed as we give priority to version 7 and version 8.

We also now have an extended technical support cost of $600 that applies in three situations:

1. Providing technical support for models with 2 million nodes or larger and/or run times of over 30 minutes. The fee covers one year.

2. Providing technical support for importing existing MODFLOW/MT3D/SEAWAT models created outside of normal GUI's (e.g. GMS, Visual MODFLOW, Groundwater Vistas). In this particular case, the support fee is for each such model.

3. Answering an unusual number of questions. This one will not be used often but we do reserve the right. The fee covers one year.