

# Visual MODFLOW Flex Readme

## Build 1.0.150.0 (July 2012)

### Additions

- Create new boundary condition cells by drawing polygon/polylines, in the numerical workflow (for all supported boundary conditions except Recharge and Evapotranspiration)
- More options to edit boundary condition attributes, including adding new time schedule rows, change attributes from steady state and transient, etc.
- Improved Run Engines GUI: it loads quicker and runs models quicker. Charts are currently not displayed, these will be added back in at a later date.
- In the view results, charts, add statistics to the charts (residual, RMS, etc..)
- Added more logging details when doing the Conceptual to Numerical conversion
- Translated MODFLOW, MODPATH and Zone Budget files now use relative paths instead of absolute directory paths.
- Added style settings for the "three-plane" slice that is shown in the 3D view of the Flex viewer.
- When you define a conceptual boundary condition with multiple shapes, after running conceptual to numerical conversion, this will result in one boundary condition cell group per shape.
- When you define conceptual property zones with polygon shapes, after running conceptual to numerical conversion, this will result in one property zone created per shape.
- When importing Visual MODFLOW project, an observation wells data object is now created that will allow for viewing and editing the data.

### Defects Addressed

- Evapotranspiration and Recharge zone values were not saved after making edits in the database window.
- Wells Spreadsheet – in some cases, observation well data was not showing up correctly. Also, not all edits made in the spreadsheet were being correctly saved.
- Pathlines were not showing up in the project coordinate system (eg. UTM, State Plane)
- Incomplete stress periods when importing Visual MODFLOW model with multiple drain stress periods
- In some cases, the time series chart does not show up under the results tab.
- Initial head zones were not getting imported correctly from Visual MODFLOW project files in the numerical workflow.
- Improved the translation times for the Recharge package.
- In some cases, the CHD package was not being translated correctly for steady-state models, after importing from a Visual MODFLOW project.
- After reloading a saved project, in some cases the 3D Viewer would not reload correctly
- Incorrect validation when importing transient observation well data.
- Error during Translation of the drain package
- At view charts step, the buttons were cut off when using display settings with large fonts on.
- Cannot print the time series chart to PDF; it comes out with the observed vs. calculated heads chart.
- When running MODPATH in consecutive runs, this would result in multiple Pathlines added to the Output folder.

- In some cases, model translation failed when using PCG solver.
- Error failed to move to the target step, when going to the Define Modeling Objectives step in the Conceptual Workflow.
- Fixed the naming convention for the windows resulting from a Compare Heads or Compare Drawdown request
- During import of Visual MODFLOW project with transient recharge data (100 stress periods), the program did not respond. The project will now import in approximately 5-10 minutes, however we will continue to work on further improving the performance.
- Added shortcut buttons to Flex viewer to enable grid editing, when you are at the View Grid step in the Conceptual Model workflow
- In some cases, the contour labels show very small on the 3D view
- Could not import cross-section data objects (from Hydro GeoAnalyst)
- After doing Conceptual model to Numerical model conversion for LGR scenarios, boundary condition cell groups were unnecessarily created for the child grids that did not contain any cells.
- Added option to adjust default flow parameters when you create a new conceptual model or numerical model.
- When working with multiple model runs, in some cases the MODPATH results are added to the wrong Run.
- Problem with WEL translation after modifying the input for a copy of a model run
- Removed the Run selection step at the Translations step in the GUI; it is no longer needed.
- Added start date option for numerical models.

## Known Issues with VMOD Flex

The following are the known issues with VMOD Flex:

- Uninstalling VMOD Flex may impact the performance of VMOD Classic Interface and vice versa. If you need to uninstall VMOD Flex (for updates), then please reinstall the new version right away. Otherwise, if you intend on removing VMOD Flex from your computer, then you will need to reinstall VMOD 2011 prior to using this software again.
- SAMG solver does not work with MODFLOW-LGR run
- If you are importing a Visual MODFLOW project with distributed properties, please be sure the \$CND file (and \$STR, \$IHD) files have been generated in Visual MODFLOW. To do this, open your project in Visual MODFLOW Classic Interface, go to Inputs/Properties. Select Tools/Cell Inspector. Turn on All Flow properties. Then, scroll through each layer in your model. When you are finished, save and close the project, and import into VMOD Flex.
- Rotated grids appear rotated in the 2D views.
- When show a cross-section through a child grid (for LGR) that has been rotated, the gridlines do not show up correctly. Workaround: Use 3D Viewer.
- When displaying a grid that contains a child grid (for LGR), and viewing in the Flex Viewer, the selected row, column, or layer is applied only to the parent grid; it is not applied to the child grid.
- When importing Points, Polygons or Polylines from a .DXF file, only the entities within the .DXF \$EXTMIN and \$EXTMAX will be imported; any entities outside these extents will not be imported. Therefore, please be sure to prepare your .DXF file properly, prior to importing.
- Some data object style settings are not saved to the project, e.g., points color, symbol size, etc.
- For some objects 3D viewer does not fully support color rendering/labelling
- Polygons with multiple parts are not rendered properly in the 2D Viewer; the holes on the polygons will appear the same color as the polygon for which it overlaps.

- When draping polygon or polyline over a surface, this is an approximation, since it relies on the vertices of the polygon or polyline to position this in 3D; there may be gaps/locations where it is not completely draped. The same problem occurs when viewing areal or linear boundary conditions in 3D Viewer
- Vertical datum shifts are currently not supported. VMOD Flex assumes that all data you import is in the same vertical datum.
- When using Kriging interpolation component, you may need to adjust the min and max radii in order to get an ideal interpolation; these parameter values will depend on your data set. Default values are 100 and 100, you will likely need to increase or decrease these values.
- A 3D Gridded data object will not be positioned correctly in a 3D Viewer, if the grid origin is modified during the import process.
- Grid rotation is not supported for imported 3D Gridded TecPlot (.DAT) data objects.
- In 3D Viewer, child grids may not display correctly if the parent grid only has one layer.
- In the color by attribute style settings, the MIN, MAX and color interval values may not update when a new attribute is assigned.
- In a minority of cases where the user has restricted rights on Windows, an error will occur when starting VMOD Flex due to the TEMP folder being set as read-only. Granting full access to the TEMP folder resolves the issue.
- If recharge boundaries are defined with a time schedule with multiple time entries for the same date, translation will be treated as static instead of transient.
- When working with a project in Local Cartesian coordinate system, coordinate conversion is currently not supported. Please ensure that any data you import is in the same coordinates, and length (XY) units, as your project local coordinates.
- An error occurs at the end of importing cross-section data objects
- When running the 64-bit version, georeferencing does not work when importing an image data object. Workaround: georeference the image using 3rd party tools, or use VMOD Flex 32-bit version.
- Import of a MODFLOW data set may show an error message if you are running as a restricted user.
- In the conceptual model workflow, assigning boundary conditions to the sides of the model domain currently does not work.
- When converting a conceptual model to a numerical model, Specified Flux boundary condition is currently not supported.
- Import of 2D Cross-sectional models is currently not supported.
- In some cases, the surface/cells button may not appear at the Define Properties or View Maps step in the Flex viewer: Workaround: Hide then show the appropriate data object from the model tree (eg. Conductivity or Heads) and the buttons should re-appear.