ABSTRACT

Groundwater models require a number of steps that must be completed in a specific sequence in order to satisfy a particular goal. Traditional groundwater modeling software fail to provide a logical roadmap for navigating these steps, requiring a steep learning curve, and often leading to user confusion and frustration.

A new generation of software presents the groundwater modeling steps in an intuitive, workflow-driven graphical user interface (GUI). This approach allows the modeler to see what steps have been completed, where he is currently, and where he must go to reach his goal.

The workflow-driven GUI simplifies those complex tasks that a modeler would otherwise not attempt, or would typically struggle. One example of this is Parameter Estimation (PEST).

Workflows are scalable, customizable, and can be recorded and played back, thus simplifying the process of updating models or creating alternate scenarios of a model for uncertainty analysis.

Workflows can be extended to external applications including MS Office, GIS software, or other simulators including GoldSIM, PHREEQC, HEC RAS, or OpenMI compliant models.

Workflows are built into Visual MODFLOW Flex, a simulator-independent, conceptual and numerical modeling environment.