

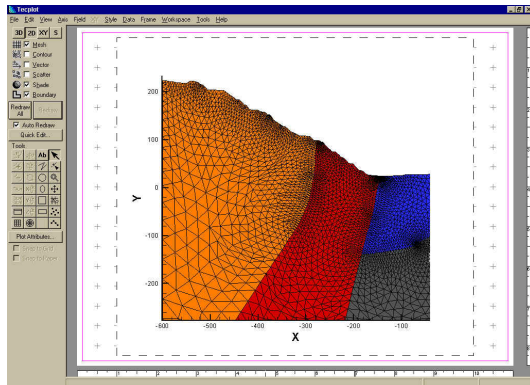


SVFlux Classroom Use

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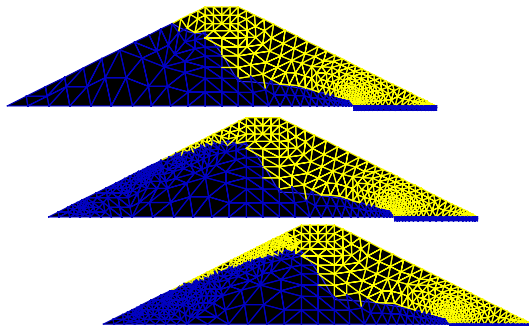
The use of computers in the training of engineers has become commonplace. More specifically, the concepts of groundwater flow and contaminant transport are often communicated to students in a computer laboratory starting with the use of groundwater modeling software. SVFlux has already gained widespread use in the University setting for the following reasons:

Automatic mesh generation and fully automatic mesh refinement allows students to complete a seepage model in a reasonable time period. Students may concentrate on the conceptual aspects of seepage modeling rather than the details of constructing a finite element mesh. Multiple models may very easily be defined and ran in a regular laboratory time period.

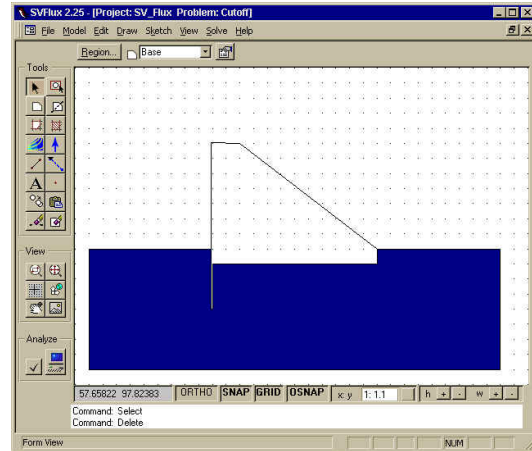


SVFlux - Highly refined mesh

A **mathematical description of the problem being solved** is available to students. The problem description file is a math-language type file containing descriptions of the partial differential equation being solved as well as all geometry, boundary conditions and soil properties defined. The problem descriptor file is an example of the instructions or seepage theory used to solve the problem.



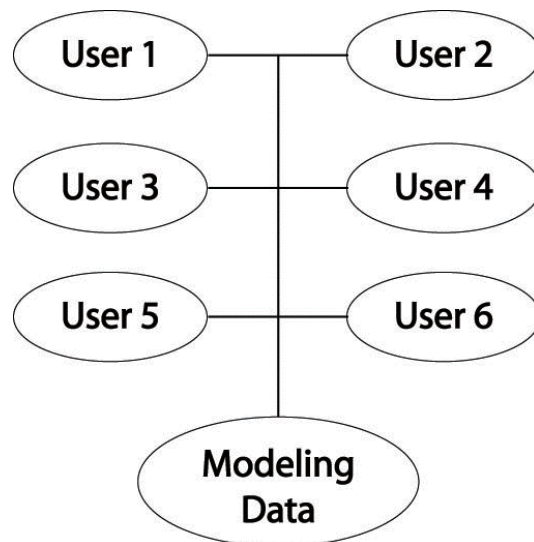
SVFlux uses a **simple to use CAD interface** designed to operate in a manner similar to AutoCAD. The interface is designed to allow an average user to become familiar with its operation in 1-2 hours. Students having previously used AutoCAD, this time may be reduced.



SVFlux

The SVFlux user's manual contains a number of **well-documented tutorials** which may be used to further reduce the amount of time needed for students to become accustomed to the SVFlux software. 2D and 3D tutorials are available and provide detailed step-by-step instructions for the entry and analysis of a typical problem.

The **database aspects** of SVFlux make it ideal for use over a network. University classrooms of computer workstations can be set up with network versions of SVFlux. The database containing model geometry, boundary conditions, and soil properties may be stored on each individual computer or on a server. If the modeling database is stored on a server, problems created by an instructor immediately become available to all students.



A **student version** of SVFlux is available for the educational budget. The solver of the student version is restricted to a maximum of 800 nodes. This restriction will not hinder the solution of most simplified teaching example problems.