GeoStudio
The modeling software for geo-engineers and earth scientists.

GeoStudio is an integrated software suite for modeling slope stability, ground deformation, and heat and mass transfer in soil and rock.

- **SLOPE/W**: Stability analysis of soil and rock slopes
- **SEEP/W**: Groundwater flow analysis in saturated/unsaturated porous media
- **SIGMA/W**: Stress and deformation analysis of earth and structural materials
- **QUAKE/W**: Analysis of earthquake liquefaction and dynamic loading
- **TEMP/W**: Heat transfer and phase change analysis in porous media
- **CTRAN/W**: Solute and gas transport analysis in porous media
- **AIR/W**: Air transfer analysis in mine waste and other porous media
Product integration increases modeling capability

- Improve PWP definition in SLOPE/W with SEEP/W finite element results.
- Use SIGMA/W finite element results in SLOPE/W for stress-based stability analyses.
- Couple SIGMA/W and SEEP/W to simultaneously model stress and PWP response.
- Establish the initial stress and PWP conditions in SEEP/W or SIGMA/W for a dynamic QUAKE/W analysis.
- Use QUAKE/W results in a Newmark SLOPE/W analysis to determine cumulative displacement.
- Redistribute QUAKE/W earthquake stresses in SIGMA/W to reveal settlement, and use final stress conditions in SLOPE/W to assess stability.
- Evaluate forced convective heat transfer in TEMP/W using AIR/W air flow results or SEEP/W water flow results.
- Combine SEEP/W with TEMP/W and/or CTRAN/W to simulate density-dependent fluid flow.
- Use SEEP/W groundwater flow results in CTRAN/W to model advection-dispersive solute transport.

Combine multiple physics into a single analysis
Find solutions to geo-engineering problems

Dams and Levees
Reinforced Walls and Slopes
Excavation and Open Pit Mines

Roads, Bridges and Embankments
Environmental Protection
Groundwater

Ground Freezing and Climate Change
Earthquake Deformations
Vadose Zone Hydrology

**DRAW GEOMETRY DIRECTLY OR IMPORT CAD FILES**
GeoStudio provides many tools to define the model domain including coordinate import, geometric item copy-paste, length and angle feedback, region merge and split, and DWG/DXF file import.

**SOLVE MULTIPLE ANALYSES SIMULTANEOUSLY**
GeoStudio runs each analysis solver in parallel, allowing multiple analyses to be solved efficiently on computers with modern, multi-core processors.

**INTERPRET RESULTS WITH VISUALIZATION & GRAPHING**
GeoStudio provides powerful visualization tools, including graphing, contour plots, isolines, animations, interactive data queries and data exports to spreadsheets for further analysis.
GEOSLOPE develops GeoStudio, the leading suite of geo-engineering software used in over 100 countries for the last 40 years. Join thousands of practising engineers, scientists, regulators, professors and students, and start using GeoStudio today.