Affordable Essentials

Integrated Slope Stability
Use SLOPE/W to compute the factor of safety of earth and rock slopes, model excavations and embankments, and much more.

Integrate pore-water pressures from SEEP/W, SIGMA/W or QUAKE/W
Using finite element computed pore-water pressures makes it possible to deal with highly irregular saturated/unsaturated conditions or transient pore-water pressure conditions in a stability analysis. For example, you can analyze changes in stability as the pore-water pressure changes with time. Excess pore-water pressures due to placement of fill, can be used to analyze stability during and after construction.

Integrate stresses from SIGMA/W or QUAKE/W
Using finite element computed stresses allows you to conduct a stability analysis in addition to a static deformation or dynamic earthquake analysis. For example, you can compute the minimum factor of safety that will be reached during an earthquake, or find any resulting permanent deformation, using a Newmark-type procedure.

Easy to Use
Defining a Problem
Beginning an analysis is as simple as defining the geometry by drawing regions and lines that identify soil layers. Once drawn, you would choose an analysis method, specify soil properties and pore-water pressures, define reinforcement loads, and create your trial slip surfaces.

Viewing the Results
Once an analysis is solved, the results can be viewed in a variety of ways:

- Display the minimum slip surface and factor of safety together, or view each one individually.
- View information about the critical slip surface, including the total sliding mass, a free body diagram and a force polygon showing the forces acting on each slice.
- Contour the factors of safety, or show plots of computed parameters. Then prepare the results for your report by adding labels, axes, and pictures, or export the results into other applications such as Microsoft® Excel® for further analysis.

Running Integrated Analyses
When you create your geometry and material properties in one product, they are available immediately in all other products. Sharing the data lets you run many analyses on the same problem, using the results from one analysis in another.

Enhancements
- Unified geometry model
  Geometry is shared between products and defined using regions, so that redefining geometry is not necessary when using one analysis in another product.
- Automatic meshing
  A finite element mesh is automatically regenerated whenever a region is added or changed.
- Unstructured/structured meshing
  Each region in the geometry generates its own finite element mesh. You can choose the mesh to be either structured or unstructured, depending on the type of region you’re meshing.

Limited Features:
- Finite element integration: max 500 elements
- Number of Regions: 10
- Number of Materials: 10
Common Features
Learn to use every one of the products in the shared GeoStudio environment quickly, due to its common look and feel.
- Define and modify the problem geometry with an intuitive CAD interface
- Interactively specify material properties and boundary conditions
- Use general data-point functions for material properties
- Enhance a drawing by sketching lines and adding text labels that automatically update as parameter values change
- Import background pictures from other applications
- View results as contours, x-y plots, vectors, or tables of data that can be exported to other applications
- Find assistance using context-sensitive Online Help and in-depth engineering manuals

GeoStudio Integration
Additional examples of using analysis results from one product in another:
- SEEP/W pore-water pressures can be used in a SIGMA/W consolidation analysis
- SEEP/W pore-water pressures can be used in a CTRAN/W contaminant transport analysis

Requirements
- Microsoft® Windows® 8, Windows® 7, Windows Vista®, or Windows® XP with SP 3
- Intel® Pentium® 4 or better, or AMD Opteron™ or Athlon™ 64 or better (GeoStudio is optimized for multi-core Intel processors)
- 100 MB hard disk space
- 1024x768 screen resolution
- Microsoft® .NET 4.0 is required for Add-Ins
- An Internet connection is required to activate or renew a license

Join a growing network
By acquiring GEO-SLOPE software, you are joining a group located in more than 100 countries, including practicing engineers, university professors, regulators, researchers and students. You can be assured that we will support and continue to enhance the software's engineering capabilities, making it even more powerful and easy to use.

Get help when you need it
When you need assistance with your model, we have helpful services available. Attend one of our workshops, or communicate directly with our experienced numerical modeling professionals. We’ll help you to create better models and to gain confidence in your results.

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