

Top 7 Reasons to use Slide 5.0

With its intuitive, graphical user interface and powerful computing engine, Slide 5.0 is fast emerging as the preferred software for slope stability analysis.

Its powerful features include:

- ◆ Quick and easy creation of models
- ◆ Minimal effort parametric analysis that facilitates testing of different ideas
- ◆ What-if or sensitivity analysis
- ◆ Probabilistic slope analysis.

Here are the top seven reasons to use Slide 5.0 for your rock and soil slope stability problems.

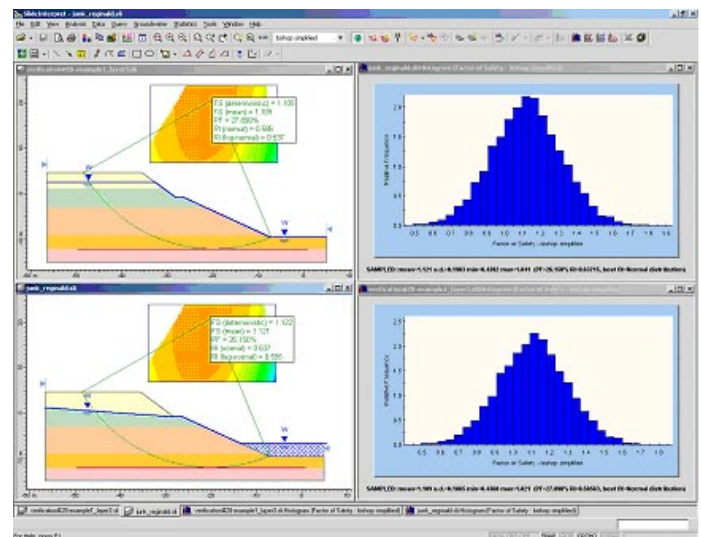
1

Conduct wide-ranging parametric analysis with minimal effort.

Slide 5.0 is designed to make your data do more for you. The program provides state-of-the-art features, such as sensitivity and probabilistic analysis tools, for making the most of limited input data. They help you to readily assess the impact of input data variations (or inadequate information) on the stability of slopes.

Sensitivity Analysis

Sensitivity analysis is a powerful procedure for investigating how sensitive model results are to changes in input parameters. If a minor change in a parameter causes large changes in the factor of safety of a slope, then the factor of safety is said to be very sensitive to that parameter. This information may lead to a decision to determine that parameter more accurately, or to redesign the slope so that its factor of safety is not as sensitive to the parameter. Slide 5.0 allows you to achieve these goals



Minimal-Effort Parametric Analysis

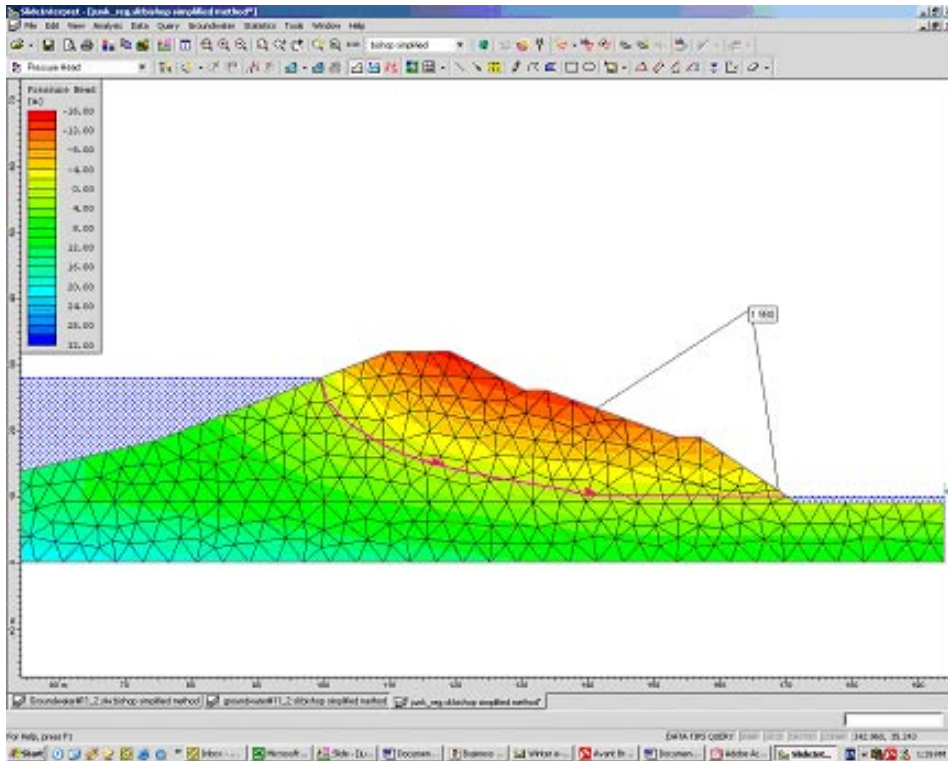
and to quickly compare the effectiveness of alternative remedial options such as drainage, slope reinforcement or changes in slope geometry. On a single graph you can plot curves showing variations in factor of safety values with percentage changes in input parameters.

Probabilistic Analysis

Slide 5.0 provides probabilistic tools for obtaining an objective measure of the risk(s) of failure associated with a slope design. The program allows you to model almost all input parameters as probabilistic variables. It calculates the probability of failure (and its converse – reliability) for individual failure surfaces or mechanisms. It also estimates the overall probability of slope failure.

2

Perform groundwater analysis with a timesaving, integrated groundwater module.



Integrated Groundwater Module

Slide 5.0 comes with an integrated steady-state groundwater analysis module that eliminates back and forth switching between different applications. Using finite element analysis, the groundwater module calculates groundwater flows, pressures and gradients. It saves you model-building time since the single model you develop is used for both groundwater and slope stability analysis. You can easily test your various hypotheses on groundwater conditions by choosing from several different types of boundary conditions. The integrated module offers the added bonus of being able to perform steady-state groundwater analysis unrelated to slope stability.

3

Quickly analyze your problems with dozens of powerful new features and tools.

Slide 5.0 includes dozens of powerful features for building models, testing ideas and interpreting results. It also allows you to import and reanalyze models previously developed in several popular slope stability programs. Significant new features include:

Back Analysis of Support Loads

Slide 5.0 can save you time and effort when designing support. Given a specified factor of safety for a slope, you can compute the reinforcement or support load required to stabilize the slope to the required safety level. This back analysis feature helps you to obtain a good starting point for support design.

Locate Critical Slip Surfaces

Finding the slip surface, which has the lowest factor of safety, is one of the most important aspects of slope stability analysis. Slide 5.0 offers several powerful techniques for searching for critical failure surfaces. The program's newest search technique, automated surface optimization, adjusts the vertices of a starting failure surface in a manner that makes it more likely to find the critical failure surface of a slope.

Analyze an Extensive Range of Material Strength Behaviour. The Discrete Strength Function

The shear strengths of the materials in a slope significantly influence stability. Slide 5.0 gives you all the commonly used soil and rock strength models, as well as several specialized strength models. The program provides easy-to-use data input dialogs, and comes with a new strength model that accepts drained or undrained strength values defined at a grid of points in a material. In between grid points, the program interpolates strength. This method will benefit you if you have strength data from the field, or if you wish to import strength data resulting from a finite element analysis.

Select from Numerous Analysis Methods

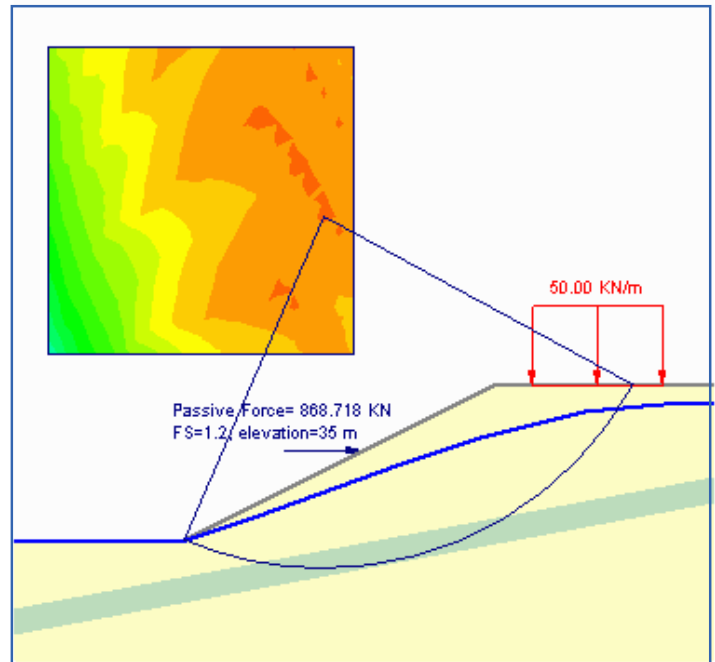
With Slide 5.0, you can analyze your slopes with any of the widely used and accepted limit-equilibrium methods including the Ordinary, Bishop, Janbu and Spencer approaches. You also have the option of selecting from methods such as the Corp Engineers 1 & 2, Lowe-Karafiath, and Generalized Limit Equilibrium (GLE).

Readily Apply and Customize Loads

The loads acting on a slope are an important factor in stability. With Slide 5.0 you can easily select the location, magnitude and direction of the loads acting on a slope. You can apply point and line loads and distribute your line loads in uniform, triangular or trapezoidal fashion. You can also model the horizontal and vertical loads imposed by earthquakes.

Choose from Several Reinforcement and Support Models

Slide 5.0 allows you to easily model several types of slope support and reinforcement. It gives you commonly used reinforcement types such as grouted tiebacks, end-anchored cables and bolts, soil nails, geotextiles and micro-piles.



Powerful New Features

Interpret Results with Cutting-Edge Data Analysis Tools

Once your slope stability calculations are done, you need tools to help you visualize your results and filter out important behaviours and patterns. Slide 5.0 employs cutting-edge graphics technologies that allow you to gain fresh, sometimes unexpected, insights into slope behaviour. It has tools for filtering out surfaces of interest and supplies data interpretation features such as contour and line plotting. Slide 5.0 generates minimum factor of safety contours, and uses colour codes to distinguish critical slip surfaces based on ranges of factor of safety values. You can plot essential results along slip surfaces such as normal and shear stress distributions, strength distributions and pore pressures. Slide 5.0 allows you to view and compare multiple plots and models on a screen. You can use histogram, cumulative and scatter plot tools to interpret probabilistic results. You can also export your statistical results directly to Microsoft Excel™, or to other packages via the clipboard, for further analysis.

4

Exploit an intuitive interface that makes your work easier.

Slide 5.0 has been configured to run seamlessly on Windows platforms. The program is easy to install, and its user-friendly interface is consistent with today's widely used Microsoft applications. Slide's intuitive interface allows you to build sophisticated models quickly and easily. Through context-sensitive menus and dialogs that pop up when you right-click on model objects, you can find relevant features and tools in fewer steps. Slide 5.0 also instantly exposes potential errors in input data that may affect the accuracy of results. It notifies you of errors or conflicts and allows you to easily fix them.

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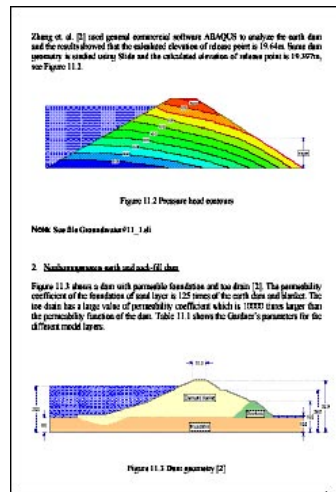
Gain access to free, first-class technical support.



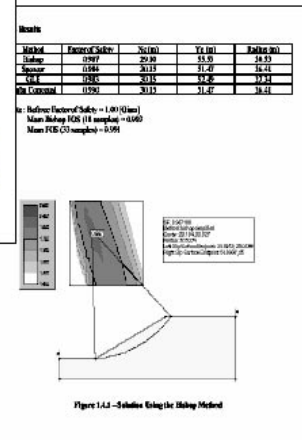
Slide 5.0 comes with free technical support, provided by the engineer-developers who created it. You receive thorough and accurate answers, via e-mail or telephone, within hours. We also provide a comprehensive, self-serve library of FAQs, project examples, and research and white papers on slope stability analysis. As well all Rocscience software is backed by our 30-day money back guarantee – if you are not completely satisfied with your purchase, return it to us within 30 days for a full refund on the software (original shipping cost is not refunded).

5

Create high-quality and professional looking reports.



Slide 5.0 gives you options for printing, viewing or manipulating figures of your slope models.



It offers you formatting and dimensioning tools for readily creating professional looking engineering drawings and for adding annotations, such as text, to figures. You can easily copy images from Slide to the Windows clipboard for pasting into reports, or save images to file formats that can be imported into AutoCad™. With Slide 5.0 you can use single clicks of buttons to directly export data and plots to Microsoft Excel or other spreadsheet and word processing applications.

7

Obtain exceptional value . . . save time, save money.

Slide 5.0 delivers unparalleled value to users – a high quality slope stability analysis software program at a low price. With world-class performance, ease-of-use and free technical support for under \$1500, what are you waiting for?

