



BISHIOP SLOPE

EVALUATE THE STABILITY OF GENERALISED SOIL SLOPES WITH THE BISHOP'S MODIFIED METHOD
GEOTECHNICAL | E01

Summary

Bishop Slope is used to evaluate the stability of soil slopes. It uses Bishop's Modified Method of analysis to evaluate the stability of generalised slopes.

What makes this module special?

- Deterministic and probabilistic analysis
- Analysis results grouped on a Calcsheet

Detailed Description

Bishop Slope uses Bishop's Modified Method (1955) of analysis to evaluate the stability of generalised soil slopes. The analysis method uses the ratio of mobilising and resisting moments on individual slices to determine the factor of safety.

The program gives a broad base of input options which include:

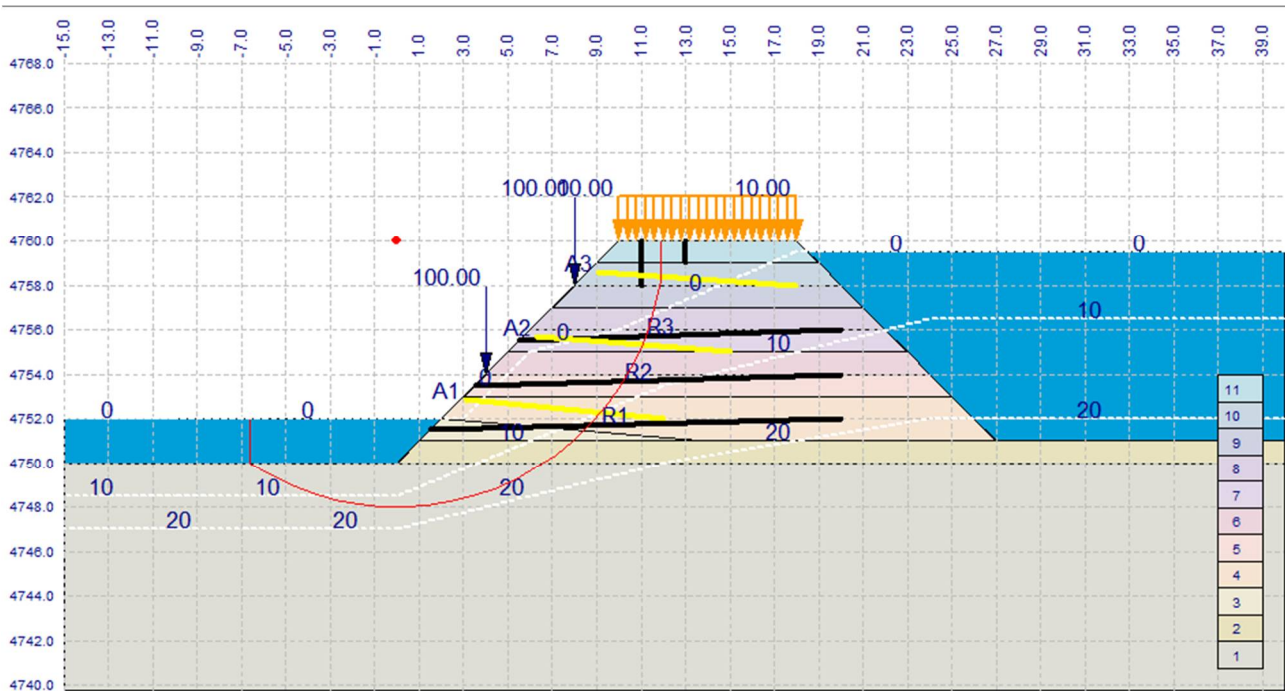
- The slope may be subjected to external loadings which include line loads and uniformly distributed imposed loads.
- The force profile of the anchor reinforcement.
- Reinforcement of the slope with metal strips or geofabric, it may be clad with for example a masonry block wall or stabilised with anchors.
- Multiple layers of materials with differing shear strength properties.
- Water pressures are accounted for by phreatic surfaces.
- Consideration of horizontal and vertical seismic forces.

There is the option of either searching for the critical minimum factor of safety or inserting a user defined circle.



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Theory used in this module

This module can perform a deterministic as well as a probabilistic analysis. With a probabilistic analysis you can consider variations in material properties and other parameters.

Distribution types that can be applied to material properties in a probabilistic analysis include uniform, triangular, exponential, normal, log normal and beta distributions. You can set the number of analysis iterations to be performed and the required probability limit.



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