# WEDGE ANALYSIS

DETERMINE THE FACTOR OF SAFETY OF A TETRAHEDRAL WEDGE THAT MAY FORM IN A ROCK SLOPE

GEOTECHNICAL | E03

## Summary

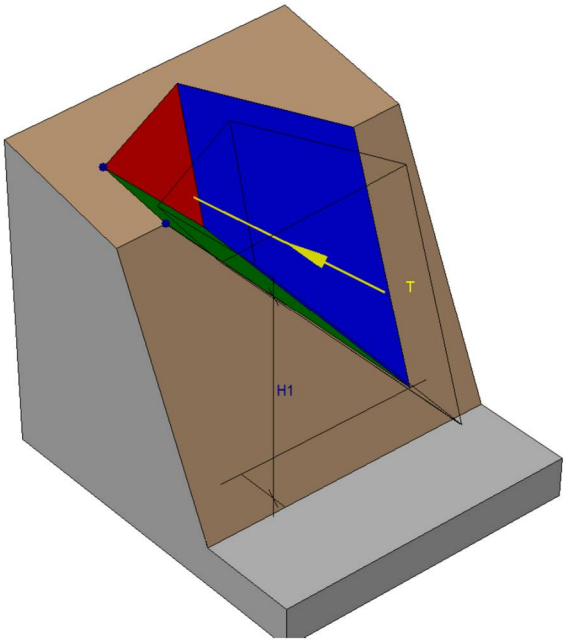
Wedge Analysis can be used for the evaluation of the stability of soil slopes. It calculates the F.O.S for a tetrahedral wedge that may form in a rock

## What makes this module special?

- Deterministic and Probabilistic Analysis
- Analysis results grouped on a Calcsheet

## Detailed Description

A tetrahedral wedge may form in a rock slope by the intersection of two planar discontinuities, the slope face, and the upper slope with or without a tension crack in the upper slope. The deterministic analysis mode is supplemented by a probabilistic mode to evaluate the effect that the range of input values have on the FOS. The probability density function of the FOS is obtained using simulation techniques.



## 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.