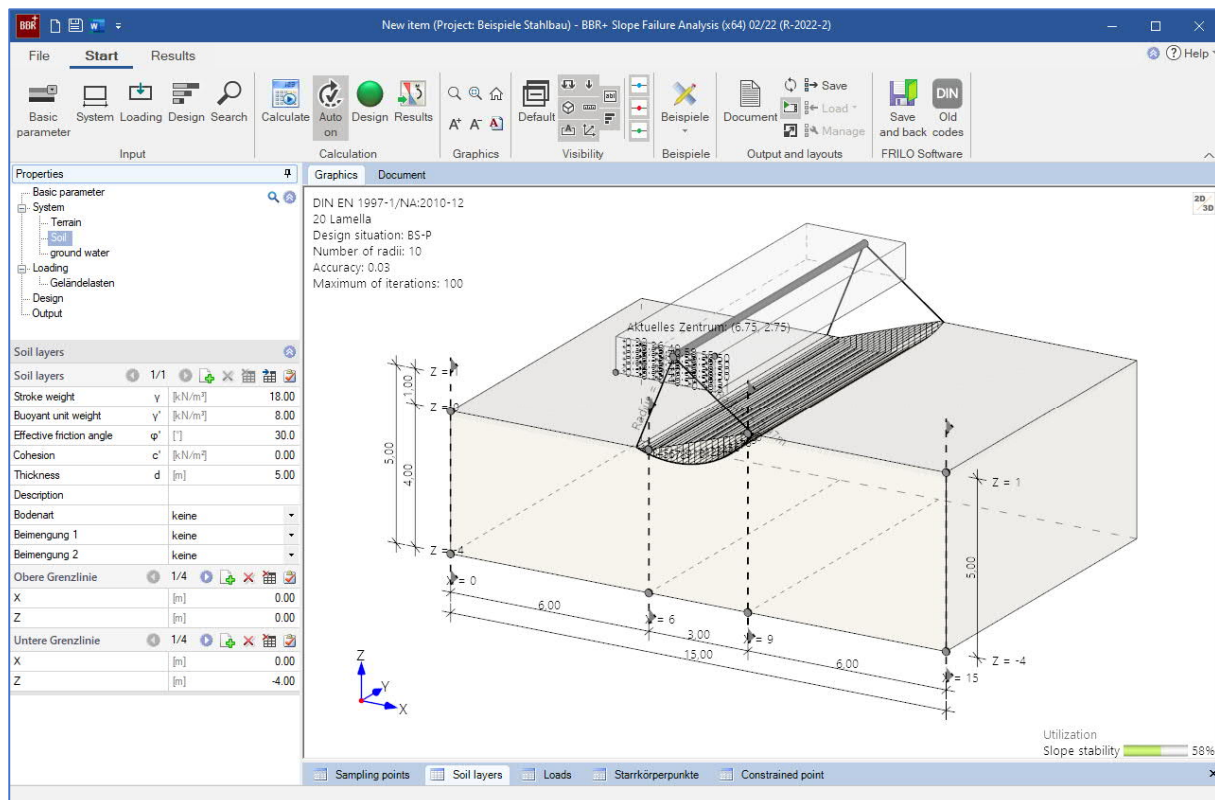# Slope Failure Analysis - BBR+

This documentation is not yet available as translated version. Until availability, we ask you to use the German manual.

Contents

Basic Documentation – Overview

In addition to the individual program manuals, you will find basic explanations on the operation of the programs on our homepage www.frilo.com ▸ Support ▸ Articles/Information ▸ Basic operating instructions.

Application options

The BBR+ program determines the embankment safety of a defined area and presents this in the form of a degree of utilisation.

The BISHOP lamella method is used to determine the degree of utilization. The utilization is determined for a slip circle, which results from the definition of the center point and radius.

To simplify the terrain input, an input assistant has been implemented, which generates a system from a few key parameters.

It is also possible to define a rectangular or circular area for various slip circle centers. Depending on the user's specifications, a slip circle variation can be carried out so that the form and position of the decisive slip circle can be determined quickly.

Possible definitions

- Polygonal input of terrain, soil stratification and groundwater course.
- Permanent and variable loads on the site.
- Multiple drainage systems.

Standards

- DIN EN 1997-1 with NA
- ÖNORM EN 1997-1 with NA
- DIN 1054 in connection with DIN 4084

Application limits

The proof of slope failure carried out in the BBR+ program is based on the BISHOP lamella method. Only circular fracture figures are possible. The program offers the possibility of working with one, two or no compulsory points. It is possible to define multiple hills and valleys including lakes. However, right-hand slip circles are always examined, which allow embankments to slide to the left. Left-turning slip circles with slopes sliding to the right are not examined.