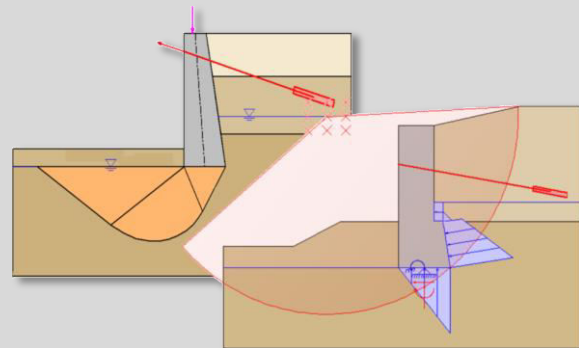


Underpinning walls

11.10.356 RTPinwalls

Calculation and design of underpinning walls

- User-defined geometry system for different advancing and retreating states
- Different water levels can be considered in front and behind the wall
- Design of the underpinning as a reinforced and unreinforced anchored wall
- Comprehensive interpretation of results including lists and graphics supported by interactive visual control
- Interface with CAD systems to transfer the wall geometry

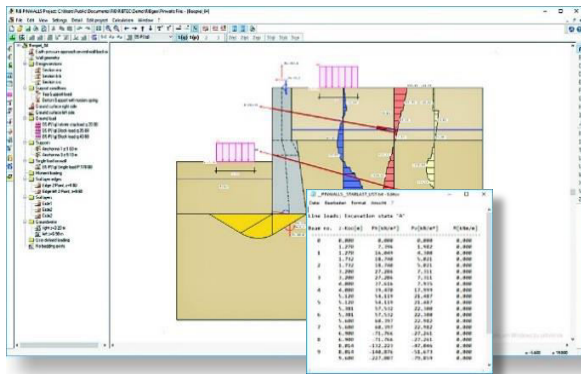


The program PINWALLS of RIB supports the efficient and safe design of underpinning walls with any terrain course, anchors and polygonal cross-sections using a graphically interactive working environment. Text and graphics are output for the system and for earth pressures, stress resultants and deformation curves as well as the relevant geotechnical verifications.



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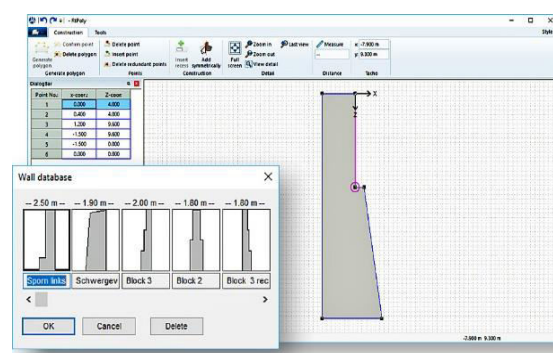


Efficient Geotechnical Design Software for Underpinning

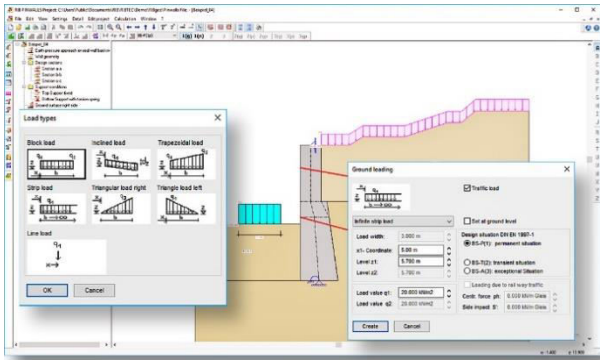
Windows® programme with graphically interactive working environment for the calculation and design of underpinning walls. The application supports the following calculation options:

- geotechnical design according to DIN 1054 incl. EAU and EAB as well as EC 7, EN 1997 and according NADs for DE, AT & CZ/SK
- wall design according to DIN 1045, DIN 1045-1 as well as EC2, EN 1992-1 and according NADs for DE, AT & CZ/SK
- parameterisable, polygonal ground levels and ground database
- parameterisable polygonal underpinning cross sections and cross section database
- graphically interactive construction supports as well as tabular polygon processing

- processing of special forms including free polygon processing
- earth pressure evaluation out of dead load / surcharge under active, increased active earth pressure and earth pressure on repose
- different forms of earth pressure redistribution according to German guideline EAB
- optionally pre-setting/limitation of the downhill earth resistance
- user-defined earth and water pressures
- consideration of different excavation stages and retreating construction stages with system modifications
- block, strip and line loads on and in the uphill soil profile for each construction stage
- evaluation of the stress resultants, stresses, anchoring forces, deformations and soil pressures
- evaluation of the required anchor lengths from the stability analysis in the deep slide joint
- interactive input of design sections with regular design and/or analysis for plain concrete



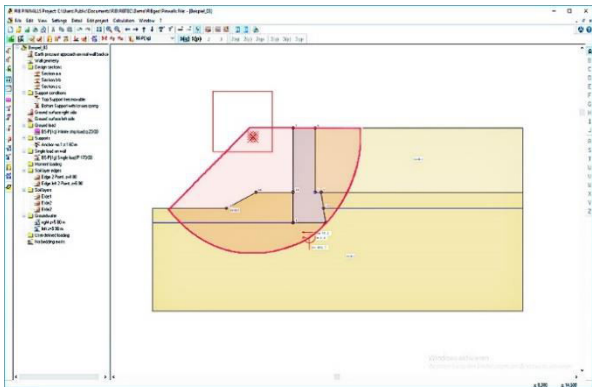
Product Information



Multi-Purpose Geotechnical Solution

The application contains additional analyses for:

- classical earth pressure approach or evaluation according to DIN 4085 as well as EC 7, EN 1997 and according NADs for DE, AT & CZ/SK
- sliding and tipping safety according to DIN 1054 or DIN 1054-1 as well as EC 7, EN 1997 and according NADs for DE, AT & CZ/SK
- slope stability according to DIN 4084 (slice method according to Bishop) as well as EC 7, EN 1997 and according NADs for DE, AT & CZ/SK
- slope stability according to DIN 4017 as well as EC 7, EN 1997 and according NADs for DE, AT & CZ/SK

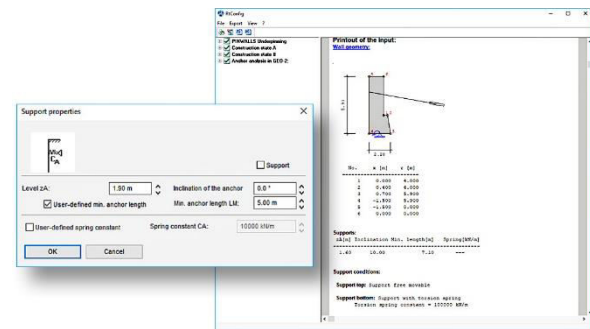


- settlement analysis according to the method of DIN 4019 as well as EC 7, EN 1997 and according NADs for DE, AT & CZ/SK
- analysis of the medium base pressure according to DIN 1054 or DIN 1054-1 as well as EC 7, EN 1997 and according NADs for DE, AT & CZ/SK
- bending and shear design for reinforcement according to DIN 1045, DIN 1045-1 as well as EC2, EN 1992-1 and according NADs for DE, AT & CZ/SK
- serviceability design according to DIN 1045, DIN 1045-1 as well as EC2 und EN 1992 and according NADs for DE, UK, CZ/SK, AT
- Consideration of requirements for minimum surface respectively robustness reinforcement as well as water resistant concrete

Graphical-interactive Working Environment

The output of text and graphics is performed via Windows® service programmes for the static system of underpinning, earth pressures including redistributions, shear force and deformation distribution, as well as friction circle and base failure analysis. RTpinwalls is a powerful geotechnical application and provides the following advantages:

- completely graphic-oriented input including overview at one glance and optimum control of all modifications
- calculation and design of the wall-anchor-system with a powerful FEM-solver
- clearly arranged working environment and programme control
- fast familiarisation via sensitive elements and chain dimensioning
- online manual with comprehensive support environment
- usage of templates
- clearly arranged and complete result output including graphics and preview functions



Configurable output of results

The dialog for controlling results provides a constant overview of the various methods of calculation and design procedures. Thereby even challenging tasks remain comprehensible and clear. The results of the calculations and analyses are displayed in a clearly arranged result list with graphics using Windows® standard functions.

Using customised list outputs, all tabular and graphic results can be generated for specific companies. The printout of each design procedure is held in a compact form, complemented with comprehensive graphics. If desired, the result list with graphics can be transferred to other Windows® applications.

