

Program details

ARTICLE NUMBER

ggu-01-106

OPERATING SYSTEM

Windows 7/8/10

Description

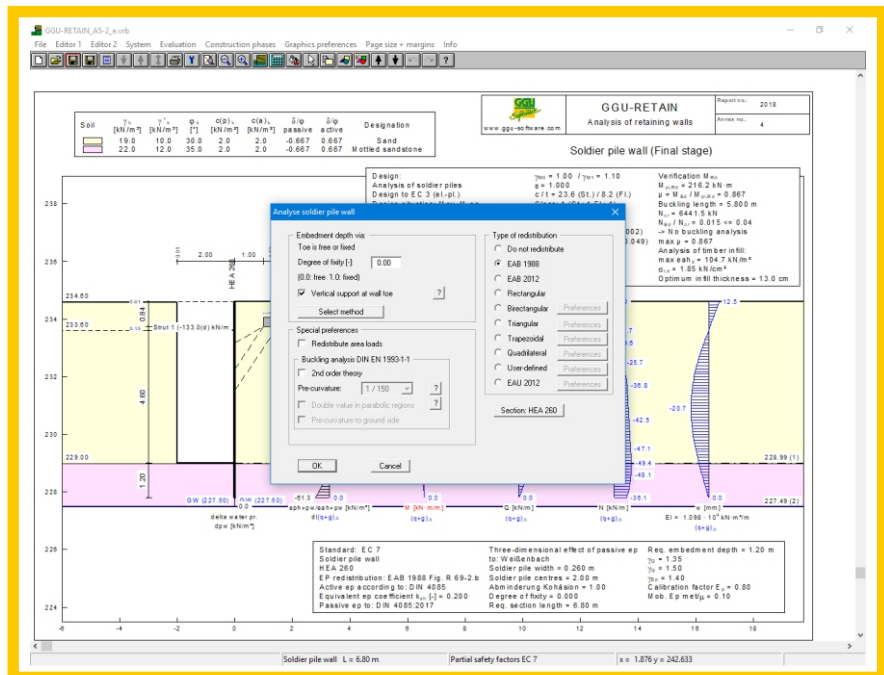
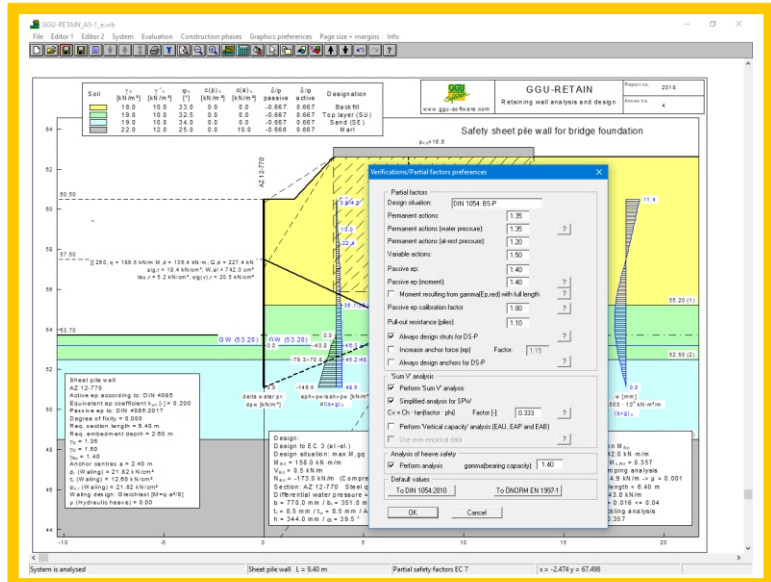
GGU-RETAIN – Analysis of retaining walls based on the Recommendations of the Working Group for Excavations and for Waterfront Structures (EAB + EAU).

The following retaining walls can be designed with this software:

- Sheet pile wall
- Soldier pile wall
- In-situ concrete wall (diaphragm wall, bored pile wall, contiguous wall)
- CMG (cut-mix-grout) wall
- Combined sheet pile wall

Capabilities:

- Choice of analysis using either partial safety factors to DIN 1054:2010, EC 7 or after Austrian Standard ÖNORM EN 1997-1
- Steel analysis using EC 3
- Expandable database using standard profiles for soldier piles and sheet piles
- Simulation of sheet pile sections corrosion
- Reinforced concrete design and crack width analysis compliant with EC 2 for circular and rectangular cross-sections
- Verification of hydraulic heave safety 'classical or after Aulbach/Ziegler, buoyancy safety, base heave safety, heave of anchor soil, pull-out resistance
- Design of infill for soldier pile walls
- Buckling analysis to DIN EN 1993-1-1 using 2nd order theory
- Deep-seated stability with optimisation of anchor lengths
- Anchor steel design
- System input using absolute heights
- Soil properties can be selected from an expandable database of common soils
- Berms on the active and the passive sides
- Analysis using active earth pressure, at-rest earth pressure and increased active earth pressure
- Active ep coefficients to DIN 4085 or after Culmann
- Passive ep coefficients to DIN 4085:2017, Streck, Caquot/Kerisel or after Culmann
- Bounded and double-bounded surcharges on active and passive sides
- Seismic effects via altered earth pressure coefficients to EC 8
- Consideration of hydraulic gradient on the active and the passive sides
- Input of displacement and action boundary conditions, anchor and strut locations, pre-deformations and much more



- Automatic search for the earth pressure redistributions proposed by the EAB + EAU
- Continuous elastic support in the toe area with any profile
- Interface to the GGU-STABILITY program (slope failure analyses)
- Choice of visualisation of earth pressure, water pressure, moments, shear force, normal force and bending line
- Retaining wall visualisation in legend
- Graphical visualisation summarising various advancing and retreating stages
- Print or copy screen sections, e.g. for transfer to a word processor
- Integrated Mini-CAD system for additional annotation of graphics

