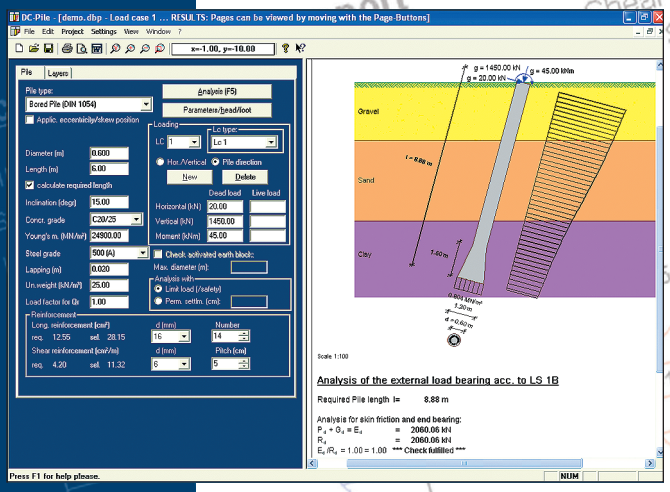
DC-SOFTWARE

Analysis of piles
DC-Pile



Input of the pile parameters and verification

Analysis of the external load bearing in Design Approach 2

Required Pile length l = 5.60 m

Analysis for skin friction and end bearing:
$P_d + G_d = E_d$ = 1199.12 kN
R_d = 1199.12 kN
E_d/R_d = 1.00 = 1.00 *** Check fulfilled ***

Acceptable skin friction:

Layer	l [m]	avail.q_s [MN/m²]	Friction force Q_d [kN]
Kies	2.59	0.071	348.47
Sand	3.01	0.107	608.29
Acc. end bearing force S [kN]:			242.35
Sum = R_d			1199.12 kN

Avail. end bearing force avail.S = E_d - sum(Q_d) = 242.35 kN
Resulting end bearing = avail. S/A = 0.857 MN/m² = perm. end bearing = 0.857 MN/m²

Settlement from resistance settlement line: s = 0.654 cm

Determination of the external load bearing

- Bore piles, driven piles, grouted piles (micro piles) acc. to Eurocode 7, DIN 1054:2010, EN 1536, Rec. on piles, DIN 4014, DIN 4026, DIN 4128, OENORM B 4440, SIA 267, BS 8004
- Design of reinforced concrete incl. shear design acc. to Eurocode 2, DIN 1045-1, DIN 1045, OENORM B 4700, SIA 262, BS 8110, IS 456
- Steel design of girder profiles and pipes acc. to Eurocode 3, DIN 18 800, SIA 263, BS 5950, IS 800
- German, English, French, Italian, Portuguese, Romanian language
- Bearing or tie piles, vertical or inclined
- Optionally with foot widening
- Loads horizontal/vertical or in the direction of the pile in different load cases
- Layering of the subsoil with selection of $q_{b,k}$ and $q_{s,k}$ including suggestions
- Analysis of skin friction and eventually end bearing for vertical loads
- Elastic bedding to transfer H-loads, with automatic adaptation to the passive earth pressure
- Determination of the required pile length or safety with available length
- Optional determination of the settlement under a defined load or of the permissible load for predefined settlement
- Settlement for micro piles with the approach of Ischebeck
- Diagram of the settlement or heave vs. resistance
- With tie piles: analysis of the activated earth block
- Analysis of punching with load spreading into weak layers
- Use of steel bars, anchor steels, GEWI or Ischebeck Titan
- Selection of the reinforcement according to diameter and spacing or pitch of spiral respectively number of anchors
- Graphic of bedding, section forces and deformation