Release notes

D-Sheet Piling 18.1.1.2

28-11-2017

New features

	In this version, a new module called "Reliability Analysis" is available to perform a probabilistic calculation using the First Order Reliability Method. Different types of input parameter can be chosen as stochastic: the friction angle, the cohesion, the water level, the surface level, the uniform load and the surcharge load. As result, D-Sheet Piling provides the reliability index, the probability of failure and the design values of each stochastic.
MSH-2694	The hot rolled and cold formed sheet pile profiles of respectively Meever & Meever and Intra B.V. are added in the Sheet Piling Profiles Library.
MSH-2753	The sheet pile profiles of firm Handelmaatschappij Gooimeer b.v. are added in the Sheet Piling Profiles Library.

Limitations

MGEOLIB-854	Input files created with versions older than MSheet 7.9 (MSheet is the predecessor of D-Sheet Piling) are no longer supported. When you want to read an old file you can use version 17.1 and save it with a different name.

Fixed bugs

MSH-2718	An error message "Access violation" appeared in some cases when selecting the options under the Results menu or under the File menu after a calculation or when opening an already calculated file (Known Issue). This is now solved.
MSH-2757	When performing a Design Sheet Piling Length calculation with the Plastic model, the first calculated length was correct but when repeating the calculation (without closing the Start Calculation window), after few calculations, the results were different and wrong. This is now solved.
MSH-2731	Vertical Balance: In the Report, in table Maxima per Stage, the result given in row Max (i.e. Sufficient or Not sufficient) was not always corrected, this is now solved.
MSH-2722	In some cases, the calculated soil stress was found to be non-zero above the surface level leading to larger maximum of stress. This is now solved.
MSH-2790	During a Design Sheet Piling Length calculation, when the maximum percentage of resistance (100%) was reached, the design didn't stopped. This is now solved.

Improvements

MSH-2119 & MSH-1968	The tab "Allowable Anchor Force" have been renamed into "Representative Kranz Anchor Strength" to match the name used in Eurocode NEN 9997-1:2016 art 9.7.2(a). The symbols are also changed and the check on the representative calculated anchor force is removed because not mentioned anymore in the Eurocode.
MSH-2651	During a Design Sheet Piling Length calculation, the design doesn't stop anymore if the maximum allowed moment is reached but a warning message is given.
MSH-2583	After importing a CPT to create a soil profile, the delta value of the automatically created soil materials is now equals to 0 for Peat materials and 2/3 of the friction angle (Phi) for the other materials (before it was always 2/3 Phi for all types of material). Moreover, a warning message is displayed inviting the user to control the automatically calculated values of the different materials (unit weights, cohesion, friction angle, delta, modulus of subgrade reaction).
MSH-2685 & MSH-1399	When creating a soil profile by importing a CPT-GEF file, in case no material can be determined during the interpretation, the created layer has no material (white) instead of an Undetermined material. The user has therefore to select an appropriate material for this layer before performing a calculation.
MSH-2704	When the maximum allowable number of elements along the sheet pile (100) is reached, a clear error message is displayed.
MSH-2132	When several CPTs are present in the Soil Profiles, only the CPTs used in the calculation are used for the discretization of the sheet pile in elements.
MSH-2655	In the Sheet Piling window, the symbol of the maximum point resistance is now q_b;max as given in NEN-EN 9997-1:2017.
MSH-2496	For Vertical Balance, if the inputted maximum point resistance (q_b;max) is 0, the Overview table in the Report gives now that the vertical balance is "Not sufficient" and a warning message is added in the Report advising the user to use a value different from 0.
MGEOLIB-890	In the report, besides the program version that created the report, also the version that made the calculation is displayed.

User Manual

MSH-2687 & MSH-2682 & MSH-2684	The different figures in the Tutorials are updated to match the actual layout and results of the program. Some steps are also modified to get the expected result.
MSH-2708	A new tutorial (nr. 20) is added to explain how to perform a Reliability Analysis.
MSH-2699	Some figures in chapter 4 (Input) are updated with the new input parameters needed to perform a Reliability Analysis.

MSH-2667	The results of the different tables are updated (when needed) to match the current results of the program.