

## Release notes

### D-Sheet Piling 19.2.2.25348

12-07-2019

#### ***New feature***

---

MSH-3056            The design of a *Wooden Sheet Piling* is now available. A library of wooden sheet piles is also available containing the profiles of Centrum Hout for four strength classes: D40, D50, D60 and D70.

#### ***Limitation***

---

MSH-3231            The items under the *Results* menu are disabled if the dumpfile (\*.shd) is not created with the current version of the program.

#### ***Fixed bugs***

---

MSH-3279            Incorrect chapter order and missing chapter in the Report for EC7-NL and CUR when steps 6.1 and 6.2 are calculated for only some stages and also for all standards with method B when some stages (not the last ones) are not verified.

MSH-3134            A wrong error message was displayed when not opening a newer input file.

MSH-3166            Settlements by vibration: After a second calculation, the Report gave incorrect results.

#### ***Improvements***

---

MSH-2791            The default content of the *Report* has been improved by adding four types of report in the *Report Selection* window: a short report (containing only the Summary chapter), a complete report without the pictures, a complete report or a report containing only selected items. The default choice is a complete report without the pictures in order to generate long report faster. However, the user has the possibility to change this default.

<p>MSH-3061, MSH-3062, MSH-3247 &amp; MSH-2904</p>	<p>Improvements concerning the <i>User Defined Partial Factors</i> window:</p> <ul style="list-style-type: none"> <li>• For a verification calculation, load factors are now applied on moments and normal forces. Moreover, for countries that have chosen Design Approach 3 in their national annex (i.e. EC7-NL and EC7-General, DA3), a distinction is made between load factors on constructive loads (i.e. horizontal line loads, moments and normal forces) and on geotechnical loads (i.e. uniform loads and surcharges). For the other countries or standards (i.e. CUR, EC7-BE and EC7-General DA1 and 2), no distinction is made and a unique loads factor is applied.</li> <li>• A note has been added in the <i>CUR</i> tab of <i>User Defined Partial Factors</i> window to explain that the CUR classes were used in the Netherlands until 2012, and that hereafter the Eurocode classes were introduced.</li> </ul>
<p>MSH-2810</p>	<p>When the option <i>Reduce delta friction angle acc. to CUR</i> is selected, the reduction applies only for the passive earth pressures coefficients.</p>
<p>MSH-1761</p>	<p>The <i>Stress Diagrams</i> under <i>Results</i> menu are now be available also for a Verification calculation, not only for a Standard calculation.</p>
<p>MSH-3177, MSH-2872 &amp; MSH-3230</p>	<p>Improvements concerning the <i>Sheet Piling Profiles Library</i>:</p> <ul style="list-style-type: none"> <li>• The opening of the <i>Sheet Piling Profiles Library</i> (under <i>Tools</i> or <i>Construction</i> menu) is much more faster than before.</li> <li>• In the User-defined tabs (sheet piles and piles) of the <i>Sheet Piling Profiles Library</i> window, the stiffness EI and the moments M uses 2 digits.</li> <li>• When opening the <i>Sheet Piling Profiles Library</i> from the <i>Sheet Piling</i> window, the profile and the quality of the actual profile (for cold formed sheet piling) is automatically selected if present in the library.</li> </ul>
<p>MSH-2839, MSH-2868 &amp; MSH-2909</p>	<p>Improvements concerning the <i>Reliability Analysis</i>:</p> <ul style="list-style-type: none"> <li>• After a <i>Reliability Analysis</i>, the determination of the representative values is improved by using low values for stochastic parameters affecting the stability positively or limiting deformation (such as cohesion, friction angle, load at passive side or decrease of the retaining height) and high values for parameters affecting stability or deformation negatively (such as load at active side or increase of the retaining height). As a consequence, if a load, water level or surface line is used as stochastic parameter at both sides of the same stage, a validation error will be displayed.</li> <li>• The reliability index (Beta) is displayed in the <i>Calculation Progress</i> window.</li> <li>• The error message "All partial derivatives are zero" has been improved by adding "This is maybe due to the fact that strength and load are far apart and the chances of failure are negligible".</li> </ul>

MSH-3264	The item <i>Slide Planes C, Phi, Delta Calculation</i> under the <i>Results</i> menu has been renamed into <i>Slip Planes Diagrams (C, phi, delta)</i> .
MSH-3168	The structure and the name of the blocks of the dumpfile (*.shd) have been improved.
MSH-2838	The maximum number of soil materials has been increased to 200 (was 50).
MSH-3293	In the <i>Report - Warnings</i> section, the message about vertical balance contains sometimes several times the same stage number.

### ***User manual***

---

MSH-3250	Two new tutorials have been added (22 and 23) to describe how to design a Wooden sheet piling, see chapters 29 and 30.
MSH-3057	A description of the <i>Wooden Sheet Piling</i> window have been added in paragraph 4.2.6 and in chapter 45.
MSH-3272	The description of the <i>Report Selection</i> window have been updated with the new types of report (see improvement MSH-2791).
MSH-2839	Paragraph 44.5 have been added explaining how the representative value of a stochastic parameter is determined.
MSH-3276	Due to improvement MSH-2810, the results of some tutorials have changed.
MSH-3070	The location part of the experience function of the <i>Feasibility</i> module is no longer available, so remove from the user manual.
MSH-3206	The formula for spaced pile wall in paragraph 42.5.3 has been corrected.
MSH-3299	The description of the windows <i>Normal Forces</i> and <i>Moments</i> is updated with the new input needed for a verification calculation (Favourable/Unfavourable and Permanent/Variable).

### ***Verification report***

---

MSH-3058	A new benchmark (4-37) has been added to test a verification calculation for a wooden sheet piling.
MSH-3229	Benchmark 4-13 testing the option <i>Reduce delta friction angle acc. to CUR</i> have been updated due to improvement MSH-2810.
MSH-3301	The results of benchmarks 4-16 until 4-28 have been updated due to improvement MSH-2810.