

Release notes

D-Geo Pipeline 19.3.1.27177

12-11-2019

Limitations

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| MDR-1156 | The connection with D-SETTLEMENT (used to perform a settlement calculation along the verticals) and the input <i>Additional settlement</i> in the <i>Calculation Verticals</i> window have been removed. |
| MGEOLIB-929 & MDR-1270 | Dumpfiles (*.drd) created with older versions of a program can no longer be read and so the results can no longer be shown. The results have to be recalculated with the current version in order to be able to use the file and display any results. |

New features

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| MDR-1182 | A new load type has been added in the <i>Traffic Load</i> window, corresponding to "0.5 x Graph II" of NEN 3650. |
| MDR-1239 | An option <i>Meeting in the middle</i> in the <i>Drilling Fluid Pressures - Pilot</i> window has been added. |
| MDR-1249 | The database of polythene profiles has been updated with new PE 100 profiles for SDR 9, SDR 11, SDR 13.6, SDR 17 and SDR 21. |
| MGEOLIB-814 | An abort option has been added to the report generator. When generating a report, you can now stop it by pressing the <i>Abort</i> button in the progress dialog. |
| MGEOLIB-827 | In the <i>Report Options</i> window, a new option enables you to show or suppress the date/time on the front page and page footers. |

Fixed bugs

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| MDR-1221 | The calculation of the pulling forces is not correct if an horizontal bending (in the top view profile) coincides with a vertical bending (in the cross section profile). In such a case, a combined radius should be used. |
| MDR-1444 | The contingency factor on bending radius should not be applied for the determination of the indirect stress q_r during the pulling force calculation (HDD). |

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| MDR-1492 | The contingency factor on modulus of subgrade reaction k_v should not be applied for the calculation of λ in pulling forces (HDD) and thrusting forces (Direct Pipe). |
| MDR-1220 | During the calculation of the maximum allowable drilling fluid pressure in undrained layers, the formula used for the calculation of the average distance depth value of S_u (undrained shear strength) and G (shear modulus) has been modified in order to avoid negative values. |
| MDR-1409 | For HDD model in the <i>Pipeline Configuration</i> window, if the input parameter <i>Angle of pipe between radii</i> is equal to the input parameter <i>Angle right</i> , then an unexpected error message is displayed. |
| MDR-1520 | For Micro-tunneling model, the <i>Report</i> can contain too much input in the section "Product Pipe Material Data" in case several pipes were defined with the HDD model. |
| MDR-1224 | In <i>View Input</i> window, <i>Geometry</i> tab, the <i>Layer</i> window displays incorrect values for the saturated and unsaturated unit weights in case the option <i>Parameters with low and high values</i> is selected. |
| MGEOLIB-931 | Made sure that when there is unsaved data, the user is always prompted to save these changes (even when <i>Cancel</i> was pressed when first prompted to save the data). |

Improvements

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| MDR-1432 | For the calculation of the pulling forces, the force T_{3c} is calculated using an iterative process. |
| MDR-845 | For HDD, the calculation options in the <i>Special Stress Analysis</i> window under the <i>Default</i> menu have been moved to the <i>Start Calculation</i> window under the <i>Calculation</i> menu. Therefore, the calculation option "Special Stress Analysis" under the <i>Calculation</i> menu has been removed because this option is identical to the "Use stress calculation data" option. |
| MDR-1203 | Changing the output language can mess up the content of the <i>Report Selection</i> . Note that the <i>Report Selection</i> of projects that were saved with a previous version of D-GEO PIPELINE may not be correct anymore because of this fix. |
| MDR-1189 | For Direct Pipe model, the choice between Jancsecz, Jaky and Manual for the determination of the earth pressure coefficient K_{a3} is used only for the calculation of the front force. For the calculation of the neutral and minimum face support pressures, K_{a3} according to Jancsecz is always used. |
| MDR-1229 | In the <i>Product Pipe Material Data</i> window for HDD. the input parameter <i>Negative wall thickness tolerance</i> for steel has 2 decimals. |

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| MDR-1096 | For Construction in trench, the deflection coefficient k_y for the calculation of the actual stress is not a constant value anymore (0.089) but depends on the load angle and bedding angle according to Table D.2 of NEN 3650-1. |
| MDR-824 | In the <i>Pipeline Configuration</i> window for Construction in trench, a validation range of the following parameters has been added: Young's modulus, unit weight, width trench bottom, slope and offset. |
| MDR-1122 | In the <i>Drilling Fluid Data</i> window, "Annular back flow" has been renamed into "Pump flow". |
| MDR-1328 | For the input parameters <i>Bedding angle</i> and <i>Load angle</i> in the <i>Engineering Data</i> window, the choice 70 degrees has been added in the drop-down list. |
| MDR-1228 | For HDD and Direct Pipe, in chapter "Stress Analysis" of the <i>Report</i> , for Load Combinations 3 and 4, Rrol have been replaced with Rmin in the formula of Sigma_b. |
| MINSTALL-808 | ServiceTool: Added possibility to filter the available licenses (All, Server or Local licenses). |
| MINSTALL-672 | ServiceTool: Version number is now shown for each entry in the license overview. |
| MINSTALL-752 | ServiceTool: More information is provided when no license file is found. |
| MINSTALL-794 | ServiceTool: Made manuals available through <i>Help</i> menu. |
| MINSTALL-420 | Improved error messages when no license is found. |
| MINSTALL-816 & MINSTALL-835 | ServiceTool: Improved the tool so it can handle the situation better when multiple licenses are available on the system: <ul style="list-style-type: none"> – Improved view of tree view: show all server and local licenses. – Improved display of used/available licenses when using multiple license files. |
| MINSTALL-866 | Fixed license overview when, besides the server license, one or more local dongle license files are present, but the dongle is not inserted. |
| DGS-608 | Application does not work correctly when a dongle is inserted, while in the DS_Flex folder besides the associated dongle file also another dongle file is present for the same application. |
| MINSTALL-712/882/866 | Fixed license issues when, besides the server license, one or more local dongle license files are present, but the dongle is not inserted. |
| MINSTALL-860 | Fixed license issue that modules are sometimes not available when multiple dongle files are present, but only 1 dongle is inserted. |

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| <p>MINSTALL-865, MINSTALL-867, MINSTALL-868, MINSTALL-874, MINSTALL-879, MINSTALL-880 & MINSTALL-881</p> | <p>Fixed various issues for licenses.</p> |
| <p>MINSTALL-876, MINSTALL-877 & MINSTALL-878</p> | <p>Improved borrowing of licenses.</p> |
| <p>MINSTALL-888</p> | <p>More elaborate error messages when a license cannot be obtained.</p> |
| <p>MGEOLIB-910</p> | <p>In <i>Report Selection</i> window, add the possibility to use automatic text or user defined text for the Page number text.</p> |
| <p>MGEOLIB-911</p> | <p>In <i>Report</i> window, the left alignment of the sentences is improved.</p> |
| <p>MGEOLIB-937</p> | <p>On the front page of the report, the path indication is removed from the file name. So now only the file name itself is mentioned.</p> |
| <p>MGEOLIB-938</p> | <p>The input file is now always automatically saved when starting a calculation.</p> |
| <p>MGEOLIB-921 & MGEOLIB-925</p> | <p>The send button in the support dialog will now always be available to the user. When no mail client is installed, windows itself will instruct the user to install it.</p> |
| <p>MGEOLIB-923</p> | <p>The license system is updated and now supports borrowing.</p> |

User manual

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| <p>MDR-1435</p> | <p>Due to the resolution of MDR-1432, the formula for the calculation of the pulling force T_{3c} in section “26.2.5 Friction due to curved forces” have been updated.</p> |
| <p>MDR-1220</p> | <p>Due to the resolution of MDR-1220, equation (25.25) in section “25.2.1 Maximum allowable drilling fluid pressure in undrained layers” has been modified to avoid negative values.</p> |
| <p>MDR-1240</p> | <p>The functioning of the new option <i>Meeting in the middle</i> is described in section “6.4 Drilling Fluid Pressures Plots”.</p> |
| <p>MDR-1235</p> | <p>The new Traffic Load <i>0.5 x Graph II</i> is described in sections “4.5.1 Traffic Loads” and “24.13 Traffic load” .</p> |
| <p>MDR-1526</p> | <p>A description of the input <i>Weight frame</i> and <i>Weight pipe, frame included</i> has been added in section “4.6.3.4 Engineering Data for Direct Pipe”.</p> |
| <p>MDR-1519</p> | <p>Due to the resolution of MDR-1432, MDR-1444 and MDR-1492, the output of the tutorials for Direct Pipe and HDD have been updated.</p> |

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| MDR-1216 | Due to the resolution of MDR-1096, the description of the input <i>Bedding angle</i> and <i>Load angle</i> has been added in section “4.6.3.3 Engineering Data for Construction in trench” and the definition of the deflection coefficient k_v in section “24.4 Initial vertical stress” has been modified. |
| MDR-1502 | Due to MDR-845, all the references to the “Special Stress Analysis” have been removed. |
| MDR-1405 | Due to MDR-1156, all references to the calculation of the settlements with D-SETTLEMENT have been removed and the tutorials 4 and 9 are not available anymore. |

Verification report

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| MDR-1434, MDR-1452 & MDR-1493 | Due to the resolution of MDR-1432, MDR-1444 and MDR-1492, the results of the pulling forces, thrust forces and stress analysis have been updated for all the benchmarks testing the HDD and Direct Pipe models. |
| MDR-1483 | Due to the resolution of MDR-1220, the results of the maximum allowable drilling fluid pressure in undrained layers have been updated for all the benchmarks testing the HDD model. |
| MDR-1476 | A new benchmark (3-30) have been added to test the calculation of the pulling forces in case the horizontal bending radius coincides with part of a vertical bending radius. |
| MDR-1275 | Due to MDR-845, the benchmarks testing the old option <i>Special Stress Analysis</i> (bm3-8 and bm3-17) have been modified with the calculation option <i>Use stress calculation data</i> . |
| MDR-1541 | Due to MDR-1156, the settlement “dv” have been removed from the table of results giving the maximum axial frictions and displacements. |
| MDR-1406 | Due to MDR-1156, the benchmarks testing the calculation of the settlements with D-SETTLEMENT (bm5-1 and bm5-2) are not available anymore. |