Snail Update History

Major changes in Update Released on 03/12/2026

The update is needed to address recent reported problems from some users having difficulty to run the program with Windows 11. The Snail v. 2.2.2 was compile in 64 bits. The updated version Snail v. 2.2.3 is compiled in 32 bits and seems to address the issues.

Major changes in Update Released on 8/6/2018
1. On the Facing Design Template, updated designs to match those presented in upcoming Caltrans Bridge Design Aids 3-9
2. On the Soil Nail and Facing input form, added Bond Strength Factors when Soil Nail Design Parameters are varying
3. On the Geometry input form, changed the minimum Facing Angle to 10 degrees
4. In Below Toe Search, changed the formula for Inclination of passive force (resistance) to base on only the entered friction angle, instead of the mobilized friction angle, which is (the entered friction angle/calculated FoS). This change reduces calculation steps and increases the calculation speed, and slightly increases calculated FoS.
5. Added the ability to notify user of new program version
6. Improved dongle licensing check procedures and added ability to run on Caltrans computers without a dongle
7. Added the ability to print the Report directly from Snail
8. Improved error checking before the input data is processed
9. Fixed minor bugs in GUI and improved the GUI

Major changes in Updated Released on 08/15/2016 – for external distribution
1. Added software security dongle licensing
2. Added installation by installer program
3. Moved settings from Settings.ina file to Settings.ini file in AppData folder

Major changes in Update Released on 11/12/2015:
1. Implemented LRFD per FHWA GEC No.7 2015
2. added analysis methods of LRFD and WSD for both structural facing and geotechnical soil nails design and analysis
3. Added an option to allow different horizontal spacing for each soil nail row
4. Fixed a geometric bug for soil layers completely above the top of the wall
5. Changed license check function from Snail.ini to Snail.ina

Major changes in Update Released on 12/01/2014:
1. Added bearing plate analysis – mostly for checking shop drawing
2. Changed facing analysis results to show detailed results with normalized capacity ratio
3. Added check for entered factored facing resistance against calculated (empirical) service load at the soil nail head
4. Added output features to facing analysis and design
5. Moved license check function to Snail.ini in the \Snail folder from registry in \HKEY_CURRENT_USER