

TECHNICAL BULLETIN

Bulletin: #130628-1
Application: UniSettle 4.0
Released: July 8, 2013
Importance: Important

Subject: UniSettle Release 4.0.0.35

Introduction

A new version of UniSettle 4.0 has been released. A description of the corrections and improvements are outlined below. You can confirm your current version of UniSettle 4.0 by accessing the "About" window located under the main "Help" menu. This upgrade is free and applies to all registered users of UniSettle 4.0.

How to Upgrade

You may upgrade your current version using one of the 2 available methods:

1. Via the "Check For Update..." feature located under the program's main "Advanced" menu.
2. By downloading the latest setup file from our website at http://www.unisoftltd.com/Uploaded/Setup/UniSettle4/UniSettle4_Latest_Setup.exe.

If you upgrade UniSettle in the same folder you will not be required to re-activate the software. However if re-activation is needed, you may use the serial number and activation code provided to you at the time of purchase or contact us at support@unisoftltd.com to receive a new one.

IMPORTANT: Installation of software onto your computer requires administrative privileges. Consult your IT specialist for more information.

Loads with Negative Depths

It has been discovered that under some conditions, the calculation of the total effective stress at the ground surface under a load with a negative depth (i.e. a load located above the ground surface), was calculated as 0. This imprecision resulted in smaller immediate and consolidation compression of the first segment in the first soil layer and varied based on the compressibility and the thickness of the segment under consideration.

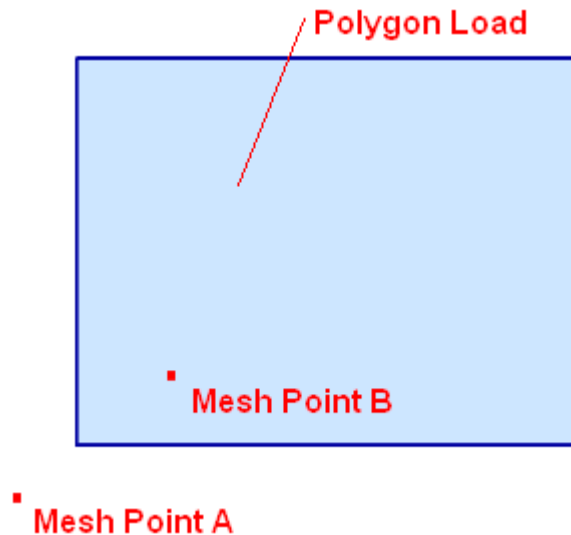
Total Settlement						
Boussinesq at (260.00, 15.00)						
Depth (m)	Effective Stresses		Settlement			Total S (mm)
	Initial (kPa)	Final (kPa)	Immediate (mm)	Consolidation (mm)	Secondary (mm)	
Clay/Silt below El 0.8 m						
0.00	0.0	38.2	19.1	50.8	14.6	84.5
1.00	18.6	55.9	17.7	36.4	14.1	68.2
2.00	37.3	71.6	16.4	29.0	13.6	59.0
3.00	55.9	87.0	15.2	24.3	13.1	52.6
4.00	74.5	102.9	14.1	20.9	12.7	47.6
5.00	93.2	119.4	13.1	18.4	12.2	43.6
6.00	102.0	126.4	12.1	16.3	11.7	40.1
7.00	110.8	133.6	11.3	14.5	11.2	37.0
8.00	119.7	141.1	10.4	13.0	10.7	34.1

Compatibility with UniPile 5.0

The import features of UniSettle 4.0 were made compatible with our new UniPile 5.0 for Windows 7. More information on this subject may be obtained by downloading our UniPile 5.0 User Manual from http://www.unisoftltd.com/Uploaded/downloads/UniPile5_User_Manual.pdf.

Effect of Mesh Points in Calculation of Total Stresses

Some users may have noticed that the calculation of the total stresses resulting from an individual load may slightly vary with the number of specified mesh points. This very small variance is caused by the change in the integration precision caused by the addition of a mesh point inside the footprint area of the load. This small variation is negligible in most engineering applications.



In reference to the image above, the total stresses caused by the Polygon load at Mesh Point A might be slightly more precise if Mesh Point B is included in the analysis. Including Mesh Point B slightly changes the integration matrix of the Polygon load. This effect does not apply to point or rectangular type loads.