



WEBINAR

Predict Missing CPT Points and get Empirical Settlement with CPT Points in Settle3

Q1: Is the empirical settlement for an isolated load? Group effects?

A1: The empirical settlement is meant to be used as isolated loads moving along the defined grid points so it doesn't have group effects.

Q2: Will the program ever take the calculated CPT parameters and put them into the soil layers that we can edit them without having to generate the data ourselves?

A2: In the future the soil layering may be implemented but it does come with some assumptions and estimation as to which values to use for soil properties. Potential research and applications can be incorporated in the future for this.

Q3: If you have something like a buried channel through your data area, how many CPT's are needed to pick up that feature?

A3: You can have 3 or more CPT points to be able to simulate the CPT's but we do encourage more number of CPT points to have simulation points that is practical.

Q4: Is there any recommendation of CPT density that can have better simulation of empirical CPT data?

A4: The higher the density / resolution of CPT points, the better the simulation points will yield. There's no recommendation of density but this is something for the user to try out.

Q5: Can we use elevation data instead of depth for the CPT simulation?

A5: CPT is only allowed as depth for inputs, so the user has to convert from elevation to depth for the cpt simulation feature.

Q6: How many different sites have you compared the CRF generated date with the actual data?

A6: This has been answered by Dr. Ching in the webinar. Discussion on verification and validation of the algorithm findings are provided.

Q7: For the different site comparisons have you considered the different geologic conditions around the US and or other countries?

A7: This has been answered by Dr. Ching in the webinar. Discussion on verification and validation of the algorithm findings are provided.

Q8: Geologic deposition conditions?

A8: This has been answered by Dr. Ching in the webinar. Discussion on verification and validation of the algorithm findings are provided.

Q9: How do we balance CRF results with engineering judgement and resulting liability if we are wrong?

A9: This has been answered by Dr. Ching in the webinar. Discussion on verification and validation of the algorithm findings are provided.

Q10: Is there any computational difficulty with deep CPT's? For example, a 50m deep CPT might have 15000 individual measurements.

A10: This has been answered by Dr. Ching in the webinar. Discussion on verification and validation of the algorithm findings are provided.

Q11: Do you need to have simulated CPT's to run the analysis or can you just use actual CPT's?

A11: You can just have actual CPT's to run the analysis for empirical settlement with CPT feature.

Q12: Do you have any Settle3 files available for download to review inputs?

A12: You can use the tutorial files with multiple CPT points to use the feature.

Q13: For the evaluation of E in the settlement calculation, does user have control to define its own correlation or it will be based on Robertson only?

A13: For E value it's currently using the Schmertmann's method based on the QC parameters.

Q14: Any case study of utilizing the CRF for post ground improvement CPT's?

A14: No, the study was done only on the actual CPT's, not for post ground improvement CPT's.

Q15: Can you put multiple loads for this simulation?

A15: The empirical settlement is meant to be used as isolated loads moving along the defined grid points so it doesn't have group effects.

Q16: What is the grid spacing? Can this be adjusted?

A16: Grid spacing are not defined but the number of grid points are defined for the user, so depending on the defined region size, the user can define the number of grid points they like to simulate for the empirical settlement analysis.

Q17: Can PMT data be used in Settle3?

A17: At the moment the feature is applicable to CPT data points.

Q18: Have you verified the simulated CPT point versus field CPT?

A18: Verification and validation of the algorithm has been presented by Dr. Ching. User can also see the simulations to check the values of the simulated CPT points.