

Virginia Tech Program for Asset Locating Method Selection VT-PALMS

ABSTRACT:

The location of utilities buried beneath the built environment has always been a concern for those conducting work that involves excavation or the placement of items into the ground. Whether physically removing material or driving piles, posts, and more, the potential for accidental utility strikes is increasing with the movement of more traditional utilities from above ground to below. Also, the addition of utilities and new technology in underground spaces that hasn't existed in the past, such as fiber optics and more high-speed telecommunication lines, is occupying more space. Traditional methods of surveying, in combination with surface geophysics and the development and improvement of processes and technologies to track the location of buried assets led to the engineering services category termed Subsurface Utility Engineering (SUE). In order to aid utility engineers and consultants who are responsible for the collection of utility data this research aimed to help identify a way to compare the various technologies and incorporate information about the individual project in order to choose the most appropriate locating method for a project with a defined set of parameters. The result was the development of standard evaluation forms that can be sent to technology vendors and consultants to evaluate the performance and limitations of a technology. This data can then be compiled into a database located within an Excel-based program created to compare the technologies. The program, VT-PALMS (Virginia Tech Program for Asset Locating Method Selection), consists of the performance and economic databases, a project information sheet, and the results of the comparison of each technology in the database to the information on the project information sheet.

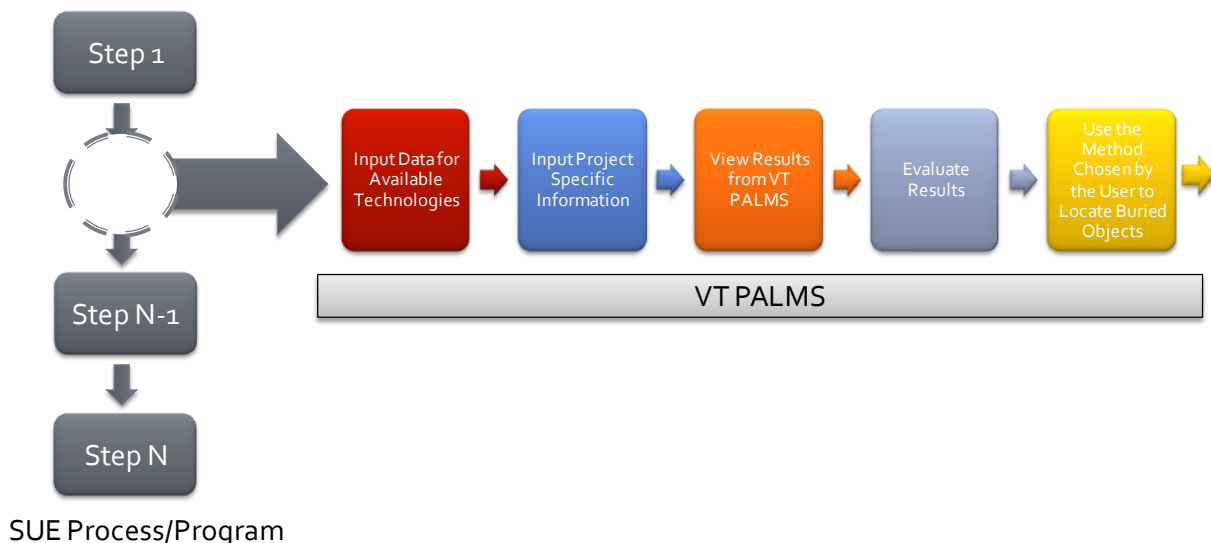


Figure 1: Steps to Integrating PALMS Tool in to SUE Process

CONTACT:

Dr. Sunil Sinha; Email: ssinha@vt.edu; Phone: 540-231-9420