

Program Overview

Note to Earthwork Beginners

This *Day 1 Handbook* covers the technical fundamentals of modeling and quantifying site earthwork volumes with AGTEK software; however, generating good (correct and accurate) surface models and earthwork volumes with AGTEK requires more from the AGTEK user than a technical understanding of how to navigate and manipulate the AGTEK software; it also requires an AGTEK user to have a fundamental understanding of earthwork construction concepts and the ability to correctly interpret a project's grading plans, details, specifications and geotechnical report (start with the basic terminology on page 3).

The AGTEK user's conceptual understanding of earthwork and the user's ability to correctly interpret a project's plans and related documents will have a significant bearing on what the user actually decides to input in AGTEK. Stated simply, the results that AGTEK produces are only as good as the user's data-entry decisions (or, as the old refrain goes, "garbage in, garbage out"). This should go without saying: Any earthwork beginner expected to produce accurate surface models and good quantities with AGTEK must be supported by the supervision, guidance and knowledge of more experienced staff.

The step-by-step exercise (which begins on page 54) of this *Day 1 Handbook* includes some basic plan-interpretation comments for the specific plan sheets referenced in the exercise (see pages 80, 83, 125, 128-131, 157 and 159); however, it is assumed that users of this handbook already have a good understanding of earthwork construction concepts, including the reading and interpretation of grading plans, related specifications and geotechnical reports.

Beginning AGTEK users that are also new to the earthwork construction industry (and the managers of these new users) may be interested in the range of supplemental learning resources available on the ***Earthwork Construction Learning Resources*** page located at www.earthworksoftwareservices.com/resourceed.htm. The resources available via this linked web page include items of interest to both earthwork beginners and earthwork veterans; however, ***the topics of most interest to earthwork beginners will include: plan reading, earthwork construction concepts, soil properties and the interpretation of geotechnical reports.***