

Program Overview

Data-Entry Options for Site Modeling and Takeoff (Cont.)

The following table summarizes page 32's data-entry options, their suitability for earthwork takeoff and construction modeling applications, and their associated errors . . .

Plan Line Work Data-Entry Method	Accuracy for Quantity Takeoff and Analysis	Accuracy for Staking and Machine Control	Potential Errors
Manually Digitized Raster PDF Plans (page 56)	Acceptable (ability to zoom helps with small-scale plan source)	Unacceptable (might be used to check existing topography or roughly locate points of interest—not for high- accuracy staking or control)	Plan scale distortion, plan scaling error, digitizing errors, elevation-entry errors, omission of break lines, drafting errors
Manually Digitized Paper Plans (see <i>Appendix F</i> and <i>Appendix G</i>)	Acceptable (horizontal error is higher with small-scale plan sheets and lower with large-scale plan sheets)	Unacceptable (might be used on site to check existing topography or to roughly locate points of interest—not for high- accuracy staking or control)	Plan scale distortion, plan scaling error, digitizing errors, elevation-entry errors, omission of break lines, drafting errors
Imported from Vector PDF Files (<i>Day 2</i>)	Much Better (plan scale distortion and digitizing errors are eliminated)	Potentially Acceptable (check sample of point coordinates to verify acceptable horizontal accuracy across model)	Plan scaling error, elevation-entry errors, omission of break lines, drafting errors
Imported from CAD or LandXML Files (<i>Day 2</i>)	Best (CAD/LandXML files offer best horizontal accuracy)	Best (CAD/LandXML files offer best horizontal accuracy)	Bad imported elevations, elevation-assignment errors, omission of break lines, drafting errors